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**PROPOSAL FOR A
COUNCIL REGULATION (ECSC, EC, Euratom)**

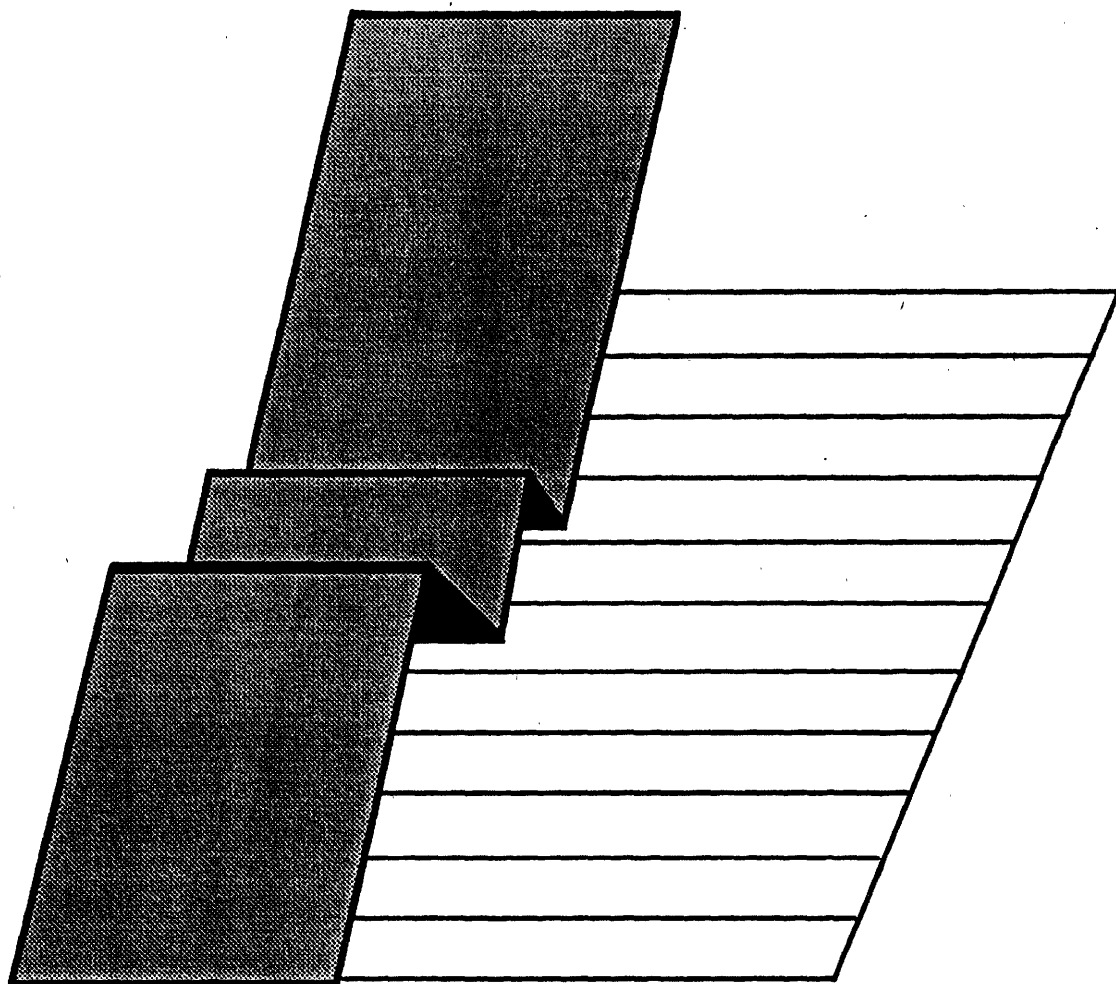
**adjusting with effect from 1.7.96 the remuneration and pensions of officials and
other servants of the European Communities and the weightings applied thereto**

(presented by the Commission)

Eurostat Report

**Factors in the calculation of the
annual adjustment of the remuneration of
officials of the European Communities,
as provided for by the Staff Regulations**

**Reference period:
year to 1 July 1996**



**Statistical Office of the European Communities
Division B3
Luxembourg
October 1996**

Erratum: Due to a correction of the Austrian figures, announced by the Austrian government after the Eurostat report was completed, the following tables have to be corrected in the Eurostat report "Factors in the calculation of the annual adjustment of the remuneration of officials of the European Communities, 1996".

The Correct figures are:

The Community index is equal to 99.9 (1.7.95 = 100.0)

Table I.1 Real change in the net remuneration of central government civil servants in the twelve months to 1st July 1996

Country	Index
A	101.2
EUR 15	99.9

Table I.3.A Nominal (current-price) changes in the remuneration of national civil servants in the twelve-month period to 1st July 1996 (1.7.1995 = 100)

Country		Category				
		A	B	C	D	Total
A	Gross	101.2	103.4	104.2	107.3	102.7
	Net	101.2	103.4	104.2	107.3	102.8
EUR 15	Gross	102.4	102.4	103.3	103.4	102.7
	Net	101.7	102.1	102.6	103.3	102.2

Table I.3.B Real (constant-price) changes in the remuneration of national civil servants in the twelve-month period to 1st July 1996 (1.7.1995 = 100)

Country		Category				
		A	B	C	D	Total
A	Gross	99.6	101.8	102.6	105.6	101.1
	Net	99.6	101.8	102.6	105.6	101.2
EUR 15	Gross	100.2	100.4	100.5	100.9	100.4
	Net	99.6	100.1	99.9	100.9	99.9

Table I.3.C Weighting of the European Union specific indicator

Country	Real net specific indicator	Weighting	Effect on the total
A	101.2	2.06	0.02
EUR 15	99.9	100.00	-0.1

Table III.1 The change in real per capita remuneration in different sectors (1995=100) and

Table IV.1.A Comparison of the gross specific indicator and the control indicator in real terms

Country	Specific Indicator, gross
A	101.1
EUR 15	100.4

Table IV.3 Comparison of changes in gross and net remuneration for the twelve-month period to 1st July 1996

Country	Gross remuneration	Net remuneration
A	102.7	102.8
EUR 15	102.7	102.2

INTRODUCTION

In accordance with Article 65 of the Staff Regulations applicable to officials and other servants of the European Communities, Eurostat hereby presents its report for the twelve months to 1st July 1996.

Council Regulation No 3830/91 of 19 December 1991 amended the Staff Regulations, adding Annex XI (Rules for implementing Articles 64 and 65 of the Staff Regulations), which defines the method for the annual adjustment of the remuneration of Community officials. Annex XI stipulates that adjustments shall be 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 (joint index and Brussels index);
- economic parities between Brussels and the other places of employment in the Member States.

The value of the adjustment is equal to the product of the specific indicator and the joint index, with a 25% weighting for the Belgian index (Brussels component).

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.

Chapters I, II and III of this report examine respectively:

- the changes in the purchasing power of salaries of central government civil servants in Member States (specific indicator);
- the changes in the cost of living for Brussels, the economic parities and the correction coefficients;
- the change in the real per capita emoluments in general government and in central government (control indicator).

Chapter IV makes a number of technical points relating to the data reported in the preceding chapters. More detailed information on chapters I to III is available in the ANNEX to the Eurostat Report. Where necessary, Eurostat has provided technical explanations of the methods of calculation.

All figures and calculations contained in this report are based on data supplied by the competent services in the Member States.

Data supplied by Member States about the changes in the remuneration of central government civil servants are collected in a volume available on request. To obtain this volume, please contact Eurostat in Luxembourg:

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CHAPTER I: Changes in the remuneration of central government civil servants in the Member States

I.1 Summary of the results (specific indicator)

The following table sets out the changes, at constant prices, in the net remuneration of central government civil servants in the Member States in the twelve months to 1st July 1996.

The Community index is equal to 100.0 (1.7.95 = 100.0).

Table I.1 Real change in the net remuneration of central government civil servants in the twelve months to 1st July 1996

Country	Index (1.7.95=100)
B	99.8
DK	101.4
D	99.5
GR	98.0
E	100.4
F	98.0
IRL	102.4
I	101.2
L	100.2
NL	100.5
A	104.3
P	100.9
FIN	103.2
S	101.9
UK	102.8
EUR 15	100.0

The method of calculating the specific indicator is described below. The calculations performed for each Member State are set out in detail in five tables in the ANNEX. All values were calculated without intermediate rounding, although the final figures have been rounded for greater clarity.

I.2 General remarks on the calculation of the specific indicator

For some years now, the procedure for calculating the specific indicator has remained practically unchanged. Essentially, it is based on Council decisions. The rules governing its practical implementation are defined in part by Eurostat and in part by the "Working Party on Article 65 of the Staff Regulations".

Eurostat provides a report on the trend of the *purchasing power* of civil servants in central government in Member States. In principle the change in the purchasing power of civil servants under constant circumstances is considered.

The reference period is defined as the twelve-month period preceding 1st July of the year in which the review provided for in Article 65 is carried out. The method is based on the comparison of a snapshot of a national remuneration system at 1 July of the current year with the equivalent snapshot at 1 July of the previous year. A snapshot of the system does not simply mean the remuneration grid at a date but the remuneration level of the reference population employees at that date, including 1/12 of all the annually paid elements, like Christmas bonuses, annual holiday pay, lump-sum payments etc.

The reference population is taken as the following. Only staff executing central governments tasks is included. Furthermore, the reference population comprises only the permanent statutory staff of the central administrations of Member States. The following categories are in any case excluded:

- ◆ the armed forces, comprising those who have enlisted for long and short engagements and also conscripts;
- ◆ security forces, mobile police units, frontier guards, etc.;
- ◆ teachers;
- ◆ ministers of religion, if directly paid by central government;
- ◆ medical and assimilated staff of national health services.

Eurostat provides a specific indicator for the four staff categories A, B, C, and D. Out of the reference population the Member States may have selected a sample. The sample should be representative of the reference population. Out of this sample Member States report only on: single persons and married persons with two dependent children; data that relate to the remuneration paid on the first, a middle, and the final step of the selected grades. In special cases representative steps are selected.

For the transition from gross to net pay, account is taken of statutory deductions and general taxation factors.

The nominal changes in the remuneration of civil servants in the Member States are deflated with the following national consumer price indices.

Table I.2 Consumer price indices (June 1995 - June 1996).

Country	June 1996 (1985=100)	June 1995 (1985=100)	12 Month Index
B	125.0	127.3	101.8
DK	133.8	136.5	102.0
D	125.2	126.9	101.4
GR	431.9	469.9	108.8
E	176.0	182.2	103.6
F	129.8	132.9	102.3
IRL ¹	133.5	135.4	101.4
I ²	100.2	104.2	103.9
L	125.1	126.7	101.2
NL ³	113.8	115.8	101.8
A	130.7	132.8	101.6
P	240.4	249.2	103.6
FIN	143.1	143.8	100.4
S	165.9	166.7	100.8
UK	158.3	161.7	102.1

¹ (Ireland) Average between May and August

² (Italy) "Indice dei prezzi al consumo per le famiglie di operai e impiegati". Base 1995=100

³ (Netherlands) "Reeks voor werknemersgezinnen met laag inkomen, totaal". Base 1990 = 100 (CBS maandstatistiek van de prijzen - Tabel 1.2 C)

Performance pay has in recent years become a component of civil service remuneration in some Member States. The practical procedure was adapted in the following way to make sure that the principles of Art.65 and Annex XI could be applied in the same way in all Member States. Performance pay that is granted to civil servants in a Member State is not in every case included in the basic pay. If the performance pay could be regarded as being equivalent to a promotion it is not included. Likewise, if the performance pay could be regarded as being equivalent to a step increase it is not included. However, if at least part of the performance pay could be regarded as being equivalent to a 'normal' pay increase it is taken into account.

All calculations are based on data relating to the remuneration of central government civil servants as transmitted to Eurostat by the competent authorities in the Member States. The data supplied by the Member States are collected in a separate volume.

I.3 Specific indicator - results for the Union

Table I.3.A sets out the changes in nominal remuneration (at current prices) in each Member State and the average for the Union. It also sets out the indices for each of the four categories and for staff as a whole.

The corresponding indices of real salaries (at constant prices) are set out in Table I.3.B. The indices for the various Member States in the two tables are derived from Tables I.3.E of the ANNEX, while the Union indices are the result of an aggregation obtained using the weightings set out in Table I.3.C (for converting national indices to the Union average) and in Tables I.3.D of the ANNEX (for converting the indices for each grade to the average for the personnel as a whole). It can be seen that the changes vary from one Member State to another. Moreover, in most Member States, the changes in remuneration vary from one category to another.

Table I.3.A Nominal (current-price) changes in the remuneration of national civil servants in the twelve-month period to 1st July 1996 (1.7.1995 = 100)

Country		Category				Total
		A	B	C	D	
B	Gross	102.0	102.0	102.0	102.0	102.0
	Net	101.4	101.6	101.6	101.6	101.6
DK	Gross	103.1	101.8	102.1	103.2	102.6
	Net	103.8	102.8	102.7	103.4	103.4
D	Gross	101.3	101.9	102.2	102.7	101.7
	Net	100.3	100.8	102.1	103.5	100.9
GR	Gross	108.4	108.5	108.4	108.6	108.4
	Net	106.6	106.6	106.5	106.6	106.6
E	Gross	104.1	103.6	103.7	104.8	103.8
	Net	104.3	103.8	103.9	104.9	104.0
F	Gross	101.4	101.4	101.4	101.4	101.4
	Net	100.5	100.5	99.8	100.3	100.2
IRL	Gross	101.9	106.2	102.2	102.2	103.3
	Net	102.9	106.2	102.9	103.1	103.8
I	Gross	105.8	106.1	105.9	105.8	105.9
	Net	105.0	105.4	105.2	104.9	105.1
L	Gross	104.1	104.1	104.1	104.0	104.1
	Net	101.4	101.3	101.4	101.4	101.4
NL	Gross	100.2	100.2	100.2	100.3	100.2
	Net	102.2	102.3	102.3	102.4	102.3
A	Gross	106.0	106.2	104.2	107.3	105.9
	Net	106.1	106.2	104.2	107.3	106.0
P	Gross	104.3	104.1	104.0	104.4	104.3
	Net	104.7	104.4	104.3	104.6	104.6
FIN	Gross	102.7	103.3	103.6	103.8	103.0
	Net	103.6	103.6	103.8	103.9	103.6
S	Gross	104.1	104.1	105.2	105.5	104.4
	Net	102.5	102.5	103.5	103.8	102.7
UK	Gross	104.5	103.6	103.7	103.7	103.7
	Net	105.7	104.9	104.8	104.8	104.9
EUR 15	Gross	102.5	102.5	103.3	103.4	102.8
	Net	101.8	102.2	102.6	103.3	102.3

Table I.3.B Real (constant-price) changes in the remuneration of national civil servants in the twelve-month period to 1st July 1996 (1.7.1995 = 100)

Country		Category				
		A	B	C	D	Total
B	Gross	100.2	100.2	100.2	100.2	100.2
	Net	99.6	99.8	99.8	99.8	99.8
DK	Gross	101.0	99.8	100.1	101.1	100.6
	Net	101.8	100.7	100.7	101.4	101.4
D	Gross	99.9	100.5	100.8	101.2	100.3
	Net	98.9	99.4	100.7	102.1	99.5
GR	Gross	99.7	99.7	99.6	99.8	99.7
	Net	98.0	97.9	97.9	98.0	98.0
E	Gross	100.5	100.0	100.1	101.1	100.2
	Net	100.6	100.2	100.3	101.3	100.4
F	Gross	99.1	99.1	99.1	99.1	99.1
	Net	98.2	98.3	97.6	98.0	98.0
IRL	Gross	100.5	104.8	100.8	100.8	101.9
	Net	101.5	104.7	101.5	101.6	102.4
I	Gross	101.8	102.1	101.9	101.8	101.9
	Net	101.1	101.4	101.2	101.0	101.2
L	Gross	102.9	102.9	102.8	102.8	102.9
	Net	100.2	100.1	100.2	100.2	100.2
NL	Gross	98.4	98.4	98.5	98.5	98.5
	Net	100.4	100.5	100.5	100.6	100.5
A	Gross	104.3	104.6	102.6	105.6	104.3
	Net	104.4	104.5	102.6	105.6	104.3
P	Gross	100.7	100.5	100.4	100.8	100.6
	Net	101.1	100.7	100.7	100.9	100.9
FIN	Gross	102.3	102.8	103.2	103.3	102.8
	Net	103.2	103.2	103.3	103.4	103.2
S	Gross	103.3	103.3	104.3	104.7	103.5
	Net	101.6	101.7	102.6	103.0	101.9
UK	Gross	102.4	101.5	101.5	101.5	101.6
	Net	103.6	102.7	102.6	102.6	102.8
EUR 15	Gross	100.3	100.5	100.5	100.9	100.5
	Net	99.7	100.2	99.9	100.9	100.0

Table I.3.C Weighting of the European Union specific indicator

Country	Real net specific indicator	Weighting ^a	Effect on the total
B	99.8	3.73	-0.01
DK	101.4	1.53	0.02
D	99.5	34.42	-0.17
GR	98.0	1.77	-0.04
E	100.4	4.39	0.02
F	98.0	21.85	-0.45
IRL	102.4	0.63	0.01
I	101.2	12.53	0.14
L	100.2	0.21	0.00
NL	100.5	2.91	0.01
A	104.3	2.06	0.09
P	100.9	2.23	0.02
FIN	103.2	0.72	0.02
S	101.9	1.27	0.02
UK	102.8	9.77	0.27
EUR 15	100.0	100.00	0.0

^a Basis: Total emoluments of central government officials (%).

CHAPTER II: Changes in the cost of living for Brussels and equivalence of purchasing power of EC officials in the Member States

II.1 Joint index for Brussels and Belgian index (Brussels capital component).

The EC Staff Regulations state, in Article 64 and Annex XI, that Eurostat in agreement with the national statistical institutes shall draw up a joint index to measure changes in the cost of living for EC officials in Brussels.

Annex XI states that the joint index has to be weighted with the Belgian index (Brussels capital component) by 25%. Multiplying that result by the specific indicator gives the amount of the adjustment.

The joint index is compiled by Eurostat in co-operation with the Belgian Ministry of Economic Affairs, whereas the Belgian index is calculated by the Ministry from the 429 detailed indices that they produce for Brussels. These detailed indices are then aggregated by Eurostat into 173 basic headings, which (excluding housing costs) are used to calculate the joint index.

The figures for the basic headings for accommodation costs for tenants (rents index) and owner-occupiers (imputed rents index) are replaced in the joint index by an index calculated by Eurostat based on the results of an annual survey carried out among EC staff employed in Brussels.

In addition to the rents indices, another relevant difference between the two indices are the weighting structures.

The weightings used to aggregate the 173 basic headings of the joint index are derived from family budget surveys (FBS) carried out through EC and Co-ordinated Organisations officials in Brussels. Results from the 1995 Brussels FBS have been introduced this year. The weightings used for the Belgian index are based on the FBS carried out by the Belgian National Statistical Institute on a sample of Belgian households.

The details of the calculation of the two indices corresponding to this annual review are set out in Table II 1.B.

Table II.1.A shows the result of the weighting required by Annex XI.

Table II.1.A Changes in the Brussels cost of living in the twelve months to 1st July 1996

	Weight (%)	Index
Joint index (Brussels)	75	101.4
Brussels capital index	25	101.7
Weighted index	100	101.5

Table II.1.B Changes in the consumer price indices for Brussels for the twelve-month period to 1st July 1996

Table II.1.B1 Joint index (Brussels)

	Groups of consumption	Weighting	Indices
1.	Food, beverages and tobacco	113.3	101.2
2.	Clothing and footwear	50.1	100.8
3.	Housing, heating, lighting	248.6	100.9
4.	Furniture, cleaning, household articles, household appliances	111.2	101.1
5.	Health care costs	24.8	107.2
6.	Transport and communications	199.6	101.7
7.	Entertainment, leisure, education and culture	97.6	101.1
8.	Other goods and services	154.8	101.7
	Global index without rents	799.7	101.7
	Rents index	200.3	100.6
	Global index	1000.0	101.4

Table II.1.B2 Belgian capital index

	Groups of consumption	Weighting	Indices
1.	Food, beverages and tobacco	201.1	100.8
2.	Clothing and footwear	85.8	101.0
3.	Housing, heating, lighting	195.3	102.0
4.	Furniture, cleaning, household articles, household appliances	72.5	101.3
5.	Health care costs	41.9	103.8
6.	Transport and communications	164.5	102.5
7.	Entertainment, leisure, education and culture	85.1	100.9
8.	Other goods and services	153.9	101.8
	Global index without rents	928.2	101.7
	Rents index	71.8	101.8
	Global index	1000.0	101.7

II.2 Economic parities and correction coefficients

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 places of employment for which a weighting has been set. 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 same basket in each of the other places of employment. The prices of certain products are recorded in Belgian francs in Brussels and, say, in lire in Rome. The average of all the price ratios is the "economic parity".

The economic parity is therefore a real exchange rate and, as salaries are fixed in Belgian francs and converted into national currencies using the exchange rate at 1st July, a weighting is applied to convert the official exchange rate to the economic parity.

The system is as follows: the total range of goods and services constituting the consumption of the average European institution official is divided into 173 basic headings (such as cheese, footwear, petrol, train fares). A price ratio between the place of employment and Brussels is established for each of these headings; this is called the basic parity. Price surveys are conducted on products selected to represent the basic heading and specified in the necessary detail to enable prices in a sufficiently narrow range to be collected.

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. The 173 basic parities are then updated using the price index ratio between the place of employment and Brussels.

Housing is dealt with differently. Special rent surveys of estate agents are carried out each year at each place of employment, including Brussels, to calculate an economic parity for the basic heading "accommodation costs for tenants". The calculation follows a methodology that has been developed by Eurostat in collaboration with the national statistical institutes of the Member States, based on the principle that the parity used should be calculated in such a way to allow a European institution official outside Brussels to live in a dwelling of comparable quality to the ones occupied by European institution officials in Brussels. The basic parity "accommodation costs of owner-occupiers" is calculated by reference to the rent the owner-occupiers would pay if they were tenants (imputed rents).

In order to calculate the overall economic parities weights have to be applied to each basic heading according to its relative importance in the consumption basket. These weights are calculated directly from the results of the special family budget surveys conducted among European and international civil servants every five years. The resulting structure reflects the consumption of the average international civil servant in Brussels and in each country or place of employment. New weights for Brussels from the 1995 FBS have been introduced this year.

Using the 173 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 place of employment (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.

The correction coefficients applicable to the salaries of the European institution officials working in the capitals and places of employment other than Brussels and Luxembourg, which are calculated for the 1st of July, 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.

Table II.2.A shows the calculation of the correction coefficients on 1st July 1996 for places of employment situated in the European Union territory.

Table II.2.A Calculation of correction coefficients at 1st July 1996

Country/ Places of employment	Parity [1]	Exchange rate [2]	Correction coefficient 100*[1]/[2]
BL	1	1	100.0
DK	0.23493	0.18733	125.4
D	Berlin 0.054169	0.048598	111.5
	Bonn 0.048967	0.048598	100.8
	Karlsruhe 0.048101	0.048598	99.0
	Munich 0.053857	0.048598	110.4
GR	6.6570	7.8970	86.5
E	3.7318	4.0891	91.3
F	0.19132	0.16443	116.4
IRL	0.018532	0.020113	92.1
I	Rome 47.517	48.998	97.0
	Varese 45.406	48.998	92.7
NL	0.057138	0.054487	104.9
A	0.39219	0.34202	114.7
P	4.2001	5.0010	84.0
FIN	0.17305	0.14789	117.0
S	0.24924	0.21188	117.6
UK	London 0.023872	0.020710	115.3
	Culham 0.018950	0.020710	91.5

The details of the economic parities calculation, at the 8 main consumption groups level, are shown in table II.2.B for all capitals and other places apart from Brussels and Luxembourg. The weightings used to establish the Laspeyres and the Paasche parities are also set out in the same table. The global results are presented with and without rents. For some countries some basic headings elementary parities have not been estimated; thus the weights for Belgium and the specific country do not add to 1000.

Table II.2.B Economic parities and weights of the eight expenditure groups for each country 1st July 1996

II.2.B1 Denmark

Expenditure groups	Parity	Weights	
		Denmark	Belgium
1. Food, drinks, tobacco	0.24958	171.6	113.3
2. Clothing and footwear	0.18192	72.0	50.1
3. Housing, heating, lighting	0.19428	187.3	248.6
4. Furniture, cleaning, household articles, household appl.	0.21107	119.6	111.2
5. Health care costs	0.24497	16.9	24.8
6. Transport and communication	0.28905	181.2	199.7
7. Entertainment, leisure, education and culture	0.21353	93.9	97.6
8. Other goods and services	0.29697	127.8	124.1
Global parity excluding rents	0.24854	819.8	799.0
Rents parity	0.18063	150.5	200.3
Global parity	0.23493	970.3	999.3

II.2.B2 F.R. Germany - Berlin

Expenditure groups	Parity	Weights	
		Berlin	Belgium
1. Food, drinks, tobacco	0.050067	153.2	113.3
2. Clothing and footwear	0.044767	63.8	50.1
3. Housing, heating, lighting	0.064056	205.6	248.6
4. Furniture, cleaning, household articles, household appl.	0.048025	114.7	111.2
5. Health care costs	0.066067	17.8	24.8
6. Transport and communication	0.054599	191.0	199.9
7. Entertainment, leisure, education and culture	0.050511	87.0	97.6
8. Other goods and services	0.053374	168.5	154.6
Global parity excluding rents	0.051801	827.2	799.9
Rents parity	0.068159	172.4	200.3
Global parity	0.054169	999.6	999.2

II.2.B3 F.R. Germany - Bonn

Expenditure groups	Parity	Weights	
		Bonn	Belgium
1. Food, drinks, tobacco	0.050955	153.2	113.3
2. Clothing and footwear	0.044542	63.8	50.1
3. Housing, heating, lighting	0.046026	205.6	248.6
4. Furniture, cleaning, household articles, household appl.	0.047965	114.7	111.2
5. Health care costs	0.065600	17.8	24.8
6. Transport and communication	0.051518	191.4	199.7
7. Entertainment, leisure, education and culture	0.045803	87.0	97.6
8. Other goods and services	0.050790	166.5	154.8
Global parity excluding rents	0.049825	827.6	799.7
Rents parity	0.045382	172.4	200.3
Global parity	0.048967	1000.0	1000.0

II.2.B4 F.R. Germany - Karlsruhe

Expenditure groups	Parity	Weights	
		Karlsruhe	Belgium
1. Food, drinks, tobacco	0.051902	153.2	113.3
2. Clothing and footwear	0.046568	63.8	50.1
3. Housing, heating, lighting	0.039627	205.6	248.6
4. Furniture, cleaning, household articles, household appl.	0.047612	114.7	111.2
5. Health care costs	0.069198	17.8	24.8
6. Transport and communication	0.052788	191.4	199.7
7. Entertainment, leisure, education and culture	0.046138	87.0	97.6
8. Other goods and services	0.052307	166.5	154.8
Global parity excluding rents	0.050839	827.6	799.7
Rents parity	0.037606	172.4	200.3
Global parity	0.048101	1000.0	1000.0

II.2.B5 F.R. Germany - Munich

Expenditure groups	Parity	Weights	
		Munich	Belgium
1. Food, drinks, tobacco	0.056514	153.2	113.3
2. Clothing and footwear	0.048495	63.8	50.1
3. Housing, heating, lighting	0.055604	205.6	248.6
4. Furniture, cleaning, household articles, household appl.	0.049488	114.7	111.2
5. Health care costs	0.067805	17.8	24.8
6. Transport and communication	0.053397	191.0	198.9
7. Entertainment, leisure, education and culture	0.050800	87.0	97.6
8. Other goods and services	0.054152	166.5	154.8
Global parity excluding rents	0.053097	827.2	798.8
Rents parity	0.056376	172.4	200.3
Global parity	0.053657	999.6	999.2

II.2.B6 Greece

Expenditure groups	Parity	Weights	
		Greece	Belgium
1. Food, drinks, tobacco	6.8743	176.6	113.3
2. Clothing and footwear	8.0389	74.2	50.1
3. Housing, heating, lighting	5.8418	163.4	248.6
4. Furniture, cleaning, household articles, household appl.	6.6355	123.1	111.2
5. Health care costs	8.2317	17.4	24.8
6. Transport and communication	6.2657	186.5	199.7
7. Entertainment, leisure, education and culture	6.8938	96.7	97.6
8. Other goods and services	7.5566	156.2	124.1
Global parity excluding rents	6.8172	868.6	789.0
Rents parity	5.9880	125.4	200.3
Global parity	6.6570	994.0	989.3

II.2.B7 Spain

Expenditure groups	Parity	Weights	
		Spain	Belgium
1. Food, drinks, tobacco	3.4726	169.9	113.3
2. Clothing and footwear	3.1971	71.4	50.1
3. Housing, heating, lighting	4.1141	195.0	248.6
4. Furniture, cleaning, household articles, household appl.	3.4307	118.5	111.2
5. Health care costs	6.7333	16.8	24.8
6. Transport and communication	3.8220	179.5	199.7
7. Entertainment, leisure, education and culture	3.9045	93.0	97.6
8. Other goods and services	3.4064	156.0	154.8
Global parity excluding rents	3.5976	841.6	799.7
Rents parity	4.4905	158.5	200.3
Global parity	3.7318	1000.0	1000.0

II.2.B8 France

Expenditure groups	Parity	Weights	
		France	Belgium
1. Food, drinks, tobacco	0.17196	133.6	113.3
2. Clothing and footwear	0.17265	102.5	50.1
3. Housing, heating, lighting	0.25533	229.8	248.6
4. Furniture, cleaning, household articles, household appl.	0.15972	110.2	111.2
5. Health care costs	0.16654	30.7	24.8
6. Transport and communication	0.16972	163.2	199.7
7. Entertainment, leisure, education and culture	0.18651	109.8	97.6
8. Other goods and services	0.18844	120.2	154.8
Global parity excluding rents	0.17472	811.2	799.7
Rents parity	0.27788	188.8	200.3
Global parity	0.19132	1000.0	1000.0

II.2.B9 Ireland

Expenditure groups	Parity	Weights	
		Ireland	Belgium
1. Food, drinks, tobacco	0.020391	174.5	113.3
2. Clothing and footwear	0.016040	73.3	50.1
3. Housing, heating, lighting	0.017361	173.2	248.6
4. Furniture, cleaning, household articles, household appl.	0.018475	121.6	111.2
5. Health care costs	0.022790	17.2	24.8
6. Transport and communication	0.021053	184.4	199.7
7. Entertainment, leisure, education and culture	0.014230	95.5	97.6
8. Other goods and services	0.019653	121.6	124.1
Global parity excluding rents	0.018795	825.7	769.0
Rents parity	0.017423	135.7	200.3
Global parity	0.018532	961.4	969.3

II.2.B10 Italy - Rome

Expenditure groups	Parity	Weights	
		Rome	Belgium
1. Food, drinks, tobacco	50.926	172.6	113.3
2. Clothing and footwear	39.490	74.4	50.1
3. Housing, heating, lighting	51.454	189.8	248.6
4. Furniture, cleaning, household articles, household appl.	46.039	117.0	111.2
5. Health care costs	60.640	18.6	24.8
6. Transport and communication	46.407	173.5	199.7
7. Entertainment, leisure, education and culture	43.397	98.2	97.6
8. Other goods and services	45.474	155.9	154.8
Global parity excluding rents	46.375	843.6	799.7
Rents parity	53.723	156.4	200.3
Global parity	47.517	1000.0	1000.0

II.2.B11 Italy - Varese

Expenditure groups	Parity	Weights	
		Varese	Belgium
1. Food, drinks, tobacco	52.638	178.5	113.3
2. Clothing and footwear	42.034	80.8	50.1
3. Housing, heating, lighting	36.840	172.2	248.6
4. Furniture, cleaning, household articles, household appl.	47.089	127.5	111.2
5. Health care costs	64.061	18.4	24.8
6. Transport and communication	46.691	178.2	199.7
7. Entertainment, leisure, education and culture	47.211	86.6	97.6
8. Other goods and services	47.035	167.8	154.8
Global parity excluding rents	47.769	875.8	799.7
Rents parity	34.725	124.2	200.3
Global parity	45.406	1000.0	1000.0

II.2.B12 Netherlands

Expenditure groups	Parity	Weights	
		Netherlands	Belgium
1. Food, drinks, tobacco	0.051876	152.1	113.3
2. Clothing and footwear	0.043625	66.2	50.1
3. Housing, heating, lighting	0.073809	191.9	248.6
4. Furniture, cleaning, household articles, household appl.	0.048035	123.4	111.2
5. Health care costs	0.060265	11.3	24.8
6. Transport and communication	0.057154	208.4	199.7
7. Entertainment, leisure, education and culture	0.046657	96.5	97.6
8. Other goods and services	0.060628	150.2	154.8
Global parity excluding rents	0.052935	843.9	799.7
Rents parity	0.081177	156.1	200.3
Global parity	0.057138	1000.0	1000.0

II.2.B13 Austria

Expenditure groups	Parity	Weights	
		Austria	Belgium
1. Food, drinks, tobacco	0.35946	166.1	113.3
2. Clothing and footwear	0.29701	69.8	50.1
3. Housing, heating, lighting	0.50973	209.3	245.9
4. Furniture, cleaning, household articles, household appl.	0.34010	109.4	110.5
5. Health care costs	0.48902	16.4	24.8
6. Transport and communication	0.39145	143.1	177.5
7. Entertainment, leisure, education and culture	0.35048	90.9	97.6
8. Other goods and services	0.36284	130.1	124.1
Global parity excluding rents	0.36264	757.6	743.4
Rents parity	0.53856	177.5	200.3
Global parity	0.39219	935.1	943.7

II.2.B14 Portugal

Expenditure groups	Parity	Weights	
		Portugal	Belgium
1. Food, drinks, tobacco	4.1464	169.5	113.3
2. Clothing and footwear	3.8603	71.2	50.1
3. Housing, heating, lighting	5.0004	185.2	239.6
4. Furniture, cleaning, household articles, household appl.	3.6210	118.2	111.2
5. Health care costs	6.3498	13.4	16.8
6. Transport and communication	4.6315	179.1	199.7
7. Entertainment, leisure, education and culture	3.9193	91.6	94.2
8. Other goods and services	3.2523	142.7	113.7
Global parity excluding rents	3.9879	820.6	738.2
Rents parity	5.3368	160.3	200.3
Global parity	4.2001	980.9	938.5

II.2.B15 Finland

Expenditure groups	Parity	Weights	
		Finland	Belgium
1. Food, drinks, tobacco	0.18734	173.9	113.3
2. Clothing and footwear	0.15718	73.0	50.1
3. Housing, heating, lighting	0.13345	176.3	248.6
4. Furniture, cleaning, household articles, household appl.	0.20148	89.3	74.4
5. Health care costs	0.20192	17.2	24.8
6. Transport and communication	0.18990	174.2	191.1
7. Entertainment, leisure, education and culture	0.18143	95.2	97.6
8. Other goods and services	0.17905	140.0	124.1
Global parity excluding rents	0.18267	800.1	723.6
Rents parity	0.13515	138.9	200.3
Global parity	0.17305	939.0	924.0

II.2.B16 Sweden

Expenditure groups	Parity	Weights	
		Sweden	Belgium
1. Food, drinks, tobacco	0.28559	172.5	113.1
2. Clothing and footwear	0.20772	72.5	50.1
3. Housing, heating, lighting	0.23192	182.5	248.6
4. Furniture, cleaning, household articles, household appl.	0.21988	110.6	72.3
5. Health care costs	0.35662	17.0	24.8
6. Transport and communication	0.25004	185.2	191.1
7. Entertainment, leisure, education and culture	0.28705	84.5	97.6
8. Other goods and services	0.23820	121.3	124.1
Global parity excluding rents	0.25590	790.8	721.3
Rents parity	0.22248	145.5	200.3
Global parity	0.24923	936.0	921.7

II.2.B17 United Kingdom - London

Expenditure groups	Parity	Weights	
		London	Belgium
1. Food, drinks, tobacco	0.020168	170.7	113.3
2. Clothing and footwear	0.014298	57.9	50.1
3. Housing, heating, lighting	0.044786	205.7	248.6
4. Furniture, cleaning, household articles, household appl.	0.018787	104.2	111.2
5. Health care costs	0.019371	9.8	24.8
6. Transport and communication	0.020312	185.4	199.7
7. Entertainment, leisure, education and culture	0.016947	119.0	97.6
8. Other goods and services	0.019661	147.3	154.8
Global parity excluding rents	0.018770	831.9	799.7
Rents parity	0.059947	168.1	200.3
Global parity	0.023872	1000.0	1000.0

II.2.B18 United Kingdom - Culham

Expenditure groups	Parity	Weights	
		Culham	Belgium
1. Food, drinks, tobacco	0.020867	170.7	113.3
2. Clothing and footwear	0.014069	57.9	50.1
3. Housing, heating, lighting	0.019010	205.7	248.6
4. Furniture, cleaning, household articles, household appl.	0.018469	104.2	111.2
5. Health care costs	0.027205	9.8	24.8
6. Transport and communication	0.019301	185.4	199.7
7. Entertainment, leisure, education and culture	0.016434	119.0	97.6
8. Other goods and services	0.019738	147.3	154.8
Global parity excluding rents	0.018789	831.9	799.7
Rents parity	0.019754	168.1	200.3
Global parity	0.018950	1000.0	1000.0

CHAPTER III: Total emoluments in the central governments of the Member States and other economic and social indicators

III.1 The evolution of the Control Indicators

According to Art. 1.4 (d) of Annex XI of the Staff Regulations, Eurostat submits data concerning the real per capita emoluments in general government and in central government. These data serve as control indicators. The detailed tables are found in the ANNEX. In table III.1 in each case the changes in the last 12 months is shown, as well as the change in per capita emoluments, for the total economy.

Table III.1 The change in real per capita remuneration in different sectors (1995=100)

Country	Specific indicator, gross	Per capita salaries of the Total Economy	Per capita salaries of general government ¹	Per capita salaries of central government ²
B	100.2	99.7	100.2	100.2
DK	100.6	102.1	101.4	101.2
D	100.3	100.8	100.5	100.5
GR	99.7	102.5	103.2	102.6
E	100.2	100.2	96.9	97.9
F	99.1	100.3	99.5	99.5
IRL	101.9	101.7	104.3	99.5
I	101.9	101.9	102.9	102.9
L	102.9	101.7	101.8	101.8
NL	98.5	99.3	101.0	101.0
A	104.3	100.9	99.0	99.1
P	100.6	101.4	103.7	102.7
FIN	102.6	103.1	103.5	103.5
S	103.5	103.9	103.9	103.8
UK	101.6	100.8	100.5	100.5
EUR 16	100.5	100.8	100.6	100.6

¹ Defined as S60 in the National Accounts

² Defined as S61 in the National Accounts

CHAPTER IV: Statistical commentary

IV.1 Comparison of changes in the gross specific indicator and in the control indicator

Eurostat calculates a control indicator every year: this shows the variation, at constant prices, in the per capita wage bill in sector S61 of the national accounts (national central government). As this indicator is expressed in gross terms, it is not compared with the actual specific indicator which is expressed in net terms, but with the gross specific indicator.

The gross specific indicator and the control indicator are different by definition and it is natural to expect them to show short term differences.

Indeed, changes in the control indicator are not determined solely by variations in collective labour agreements but also by intrinsic factors (changes in the average age of the population, promotion to higher categories, etc.) and by changes in incidental salary components such as overtime payments, productivity incentives, and early retirement compensation.

Furthermore, there are certain factors which distort the statistical comparability of the two indices (the quality of the sample used to calculate the specific indicator, differences in the reference populations, part-time work, employers' social contributions, etc.).

The deflator used for the control indicator is the consumers' expenditure deflator in the national accounts; the deflator for the specific indicator is the national consumer price index.

In addition control indicator values for the reference period are usually estimates.

Column [1] in table IV.1.A shows the ratio between the 1996 wage bill and the 1995 one (IV.1.A1), the 1990 one (IV.1.A2) and the 1980 one (IV.1.A3); in the same manner column [2] gives the ratio between remuneration at 1st July 1996 and remuneration at 1st July 1995, 1990 and 1980.

The trends in the gross specific indicator and in the control indicator are shown in graphs in the ANNEX. In these graphs the bars show, year by year, the divergences between the indices (scale on the left), while the lines give an outlook on the cumulated indices (base 1980 = 100) trend (scale on the right).

However, over a long period, some parallelism could be legitimately expected, and indeed this is the case in most Member States. For this reason Eurostat identifies differences between the two indicators during the reference period, but puts a greater emphasis on the medium-term and long-term trend analysis. For some Member States there is in fact a divergence, at least for a short period of time. Therefore, Eurostat launched a study for a more detailed examination covering France, Italy, Germany and the United Kingdom. It was shown that if the conceptual and statistical differences between the gross specific indicator and in the control indicator are netted out, they show in fact a parallel development.

This report by Dr. Dominique Meurs of the University of Paris, is reproduced as an Annex to this Report, together with an evaluation by Eurostat.

Table IV.1.A Comparison of the gross specific indicator and the control indicator in real terms

IV.1.A1 Current reference period (base 1995=100)

Country	Control indicator [1]	Gross specific indicator [2]	1-2 [3]
B	100.2	100.2	0.0
DK	101.2	100.6	0.6
D	100.5	100.3	0.2
GR	102.6	99.7	2.9
E	97.9	100.2	-2.3
F	99.5	99.1	0.4
IRL	99.5	101.9	-2.4
I	102.9	101.9	1.0
L	101.8	102.9	-1.1
NL	101.0	98.5	2.5
A	99.1	104.3	-5.2
P	102.7	100.6	2.1
FIN	103.5	102.6	0.9
S	103.8	103.5	0.3
UK	100.5	101.6	-1.1
EUR 15	100.6	100.6	0.1

IV.1.A2 Medium-term trend (base 1990=100)

Country	Control indicator [1]	Gross specific indicator [2]	1-2 [3]
B	129.1	106.7	22.4
DK	110.6	99.5	11.1
D	102.1	101.6	0.5
GR	96.8	78.3	18.5
E	98.6	95.1	3.5
F	102.5	101.1	1.4
IRL	116.9	111.7	5.2
I	97.6	89.6	8.0
L	106.5	116.0	-9.5
NL	111.2	96.1	15.1
P	120.9	106.1	14.8
UK	149.0	103.9	45.1
EUR 16	106.0	99.6	6.6

IV.1.A3

Long period trend (base 1980=100)

Country	Control indicator [1]	Gross specific indicator [2]	1-2 [3]
B	123.8	95.6	28.2
DK	109.5	96.0	13.5
D	107.0	100.4	6.6
GR	105.7	81.0	24.7
E	99.2	98.7	0.5
F	101.4	90.0	11.4
IRL	147.7	116.8	30.9
I	132.1	99.0	33.1
L	126.4	123.3	3.1
NL	100.4	91.1	9.3
P	182.5	151.5	31.0
UK	188.1	105.9	82.2
EUR 15	115.0	97.7	17.3

IV.2 Cost of living

The June on June changes in the consumer price index instead of the change between the average of two consecutive months (June and July) and the same average for the previous year have been used since 1995 as agreed by the Working Party on Article 65 of the Staff Regulations. The national price indices used to deflate the nominal specific indicators have been presented in chapter I (Table I.2).

For the fourth consecutive year the joint index (101.4) is lower than both the Belgian consumer price indices calculated for the same period: the national index was 101.8 and the Brussels capital index was 101.7.

Table IV.2 shows the trend of the Brussels indices (joint index, Brussels capital index and the weighted average of the two) from the first application of Annex XI in 1991. The weighted index is equal to 0.75 times the joint index plus 0.25 times the Brussels index.

The period is too short to risk a conclusion on the comparison between the Brussels indices, even if for the moment it seems that the effect of the introduction of the weighted index instead of the joint index in the calculations of the annual adjustments of the remuneration of officials of the European Communities is quite neutral.

Table IV.2 Trend in the Weighted Indices from 1991

	Joint Index	Brussels index	Weighted index
1991	104.2	103.9	104.1
1992	103.6	103.3	103.5
1993	102.1	102.4	102.2
1994	102.3	102.7	102.4
1995	100.8	101.3	100.9
1996	101.4	101.7	101.5

IV.3 Remuneration and taxes

An analysis of the changes in the nominal gross and nominal net specific indicators in relation to the rate of inflation makes it possible to follow changes in statutory deductions and general tax items over the reference period. This year there is no unique development to be seen in the Union (see Table IV.3).

Table IV.3 Comparison of changes in gross and net remuneration for the twelve-month period to 1st July 1996

Country	Gross remuneration	Net remuneration	Inflation
B	102.0	101.6	101.8
DK	102.6	103.4	102.0
D	101.7	100.9	101.4
GR	108.4	106.6	108.8
E	103.8	104.0	103.6
F	101.4	100.2	102.3
IRL	103.3	103.8	101.4
I	105.9	105.1	103.9
L	104.1	101.4	101.2
NL	100.2	102.3	101.8
A	105.9	106.0	101.6
P	104.3	104.6	103.6
FIN	103.0	103.6	100.4
S	104.4	102.7	100.8
UK	103.7	104.9	102.1
EUR 15	102.8	102.3	

IV.4 Study on Remuneration

A first part of a study that deals with the development of the remuneration systems in Member States was completed. Up to now four Member States have been under review. France, Italy, Sweden and the United Kingdom. In the next step Belgium, Germany, Spain and Austria will be reviewed. It is planned that all the 15 Member States should be included in the study.

The aim of the study, by Professor R. Elliott of the University of Aberdeen and Dr. C. Lucifora of the University of Milan, was to observe in detail recent changes in national remuneration systems and to evaluate their impact on the application of Art.65 and Annex XI of the Staff Regulations, i.e. on the procedure of calculating the necessary adjustment of the salaries of EC officials. The studies give evidence of remuneration systems that can be well included in the procedure of applying Art.65 and Annex XI. Their first reports are included as an Annex to this Report, together with Eurostat's evaluation.

IV.5 The 1995 Brussels Family Budget Survey (FBS)

The 1995 Brussels FBS weights have been used for the first time in this report for the calculation of the 1996 Joint Index and parities. The comparison with the 1989 FBS survey shows a decrease in the weight for the group Food, beverages and tobacco and an increase for the group Housing, heating and lighting. These changes follow the trend also experienced for national populations. The improvement in the design of the 1995 survey has led to an increase in the response rate in more than 60%, thus providing more reliable weights.

The effects due to the introduction of the new weights in the calculations for this year are considered to be neutral. Simulations done with the 1995 data has shown that the Joint Index, based on the 1995 new weights lead to the same figure (100.8) obtained last year using the 1989 weights. The effect on the parities calculation is also neutral; the 1995 Community average correction coefficient was 86,4 % (1995 weights) instead of 86,6% (1989 weights).

IV.6 Improvements in the Rent Parity Methodology

The rent parities are calculated from ratios of rents as reported from the estate agency rent surveys. In practice, an average parity is calculated, using weighted rent ratios for each of the separate housing types (1-bed flat etc). The weights used for this breakdown are derived from the annual Staff Housing Survey (SHS). The method used till 1995 had some limitations:

- For all places except Italy, the Brussels housing-type weights were used rather than weights specific to the duty-station. (In Italy, the Varese housing-type weights were used both for Varese and for Rome). This is because the numbers of SHS returned was, in all duty-stations except Varese, too small to permit such a fine breakdown of housing types.
- For all places, the housing-type weights were those relating only to tenants; it has always been assumed that owner-occupiers housing types are similar to those of tenants, though this is not necessarily the case.

The Article 64 Working Party approved the following Eurostat proposals, which have been implemented in the 1996 annual review:

- to use all the reliable occupancy pattern data obtained from the 1996 SHS and from comparable surveys conducted by the OECD;
- to calculate housing-type weights based on the total rent/imputed rent of tenants and owner-occupiers for the different duty stations.

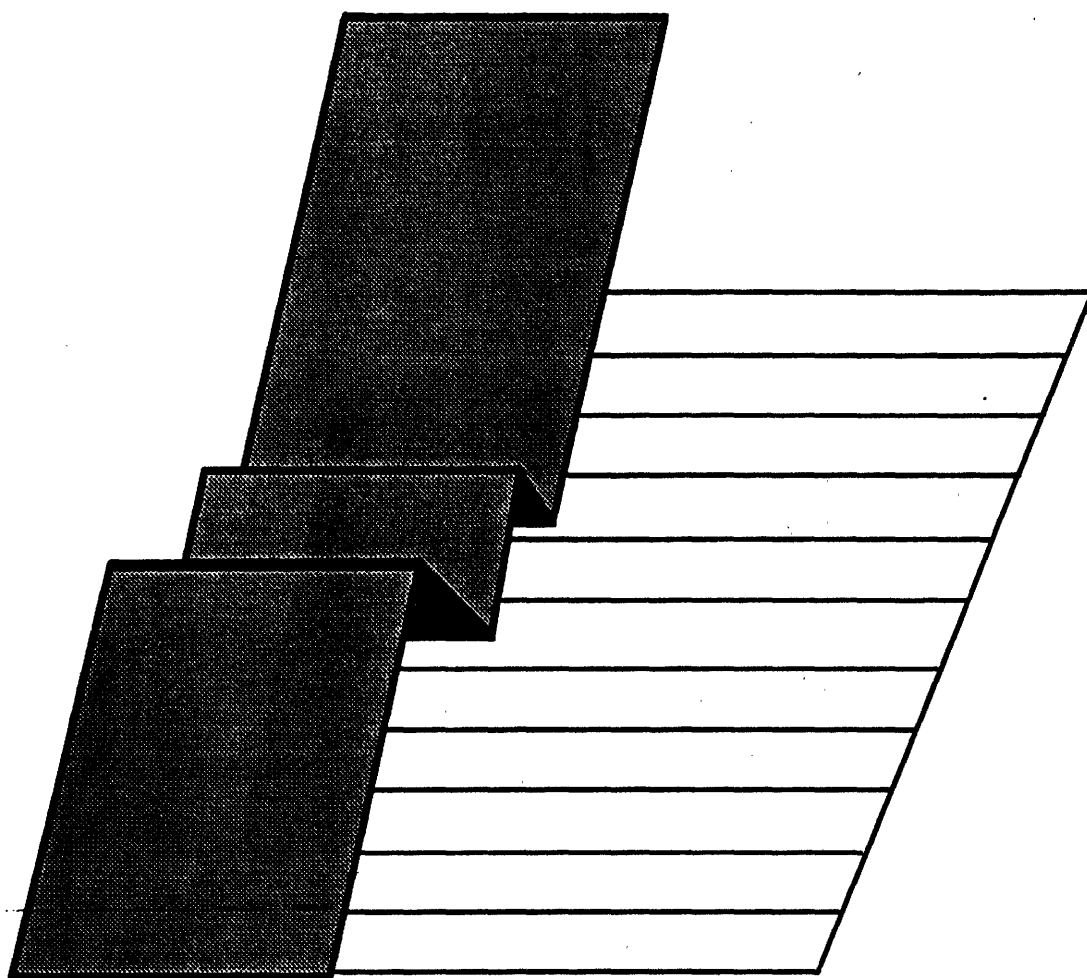
IV.7 Follow-up to the 1994 Review of Correction coefficient Methodology

In 1994, the Commission made a report to Council following a joint Council/Commission review of methodologies used in calculating correction coefficients. Three reports detailing the follow-up action in three areas, housing, weights, and price surveys, are included as annexes to this report.

Eurostat ANNEX

**Factors in the calculation of the
annual adjustment of the remuneration of
officials of the European Communities,
as provided for by the Staff Regulations**

**Reference period:
year to 1 July 1996**



**Statistical Office of the European Communities
Division B3
Luxembourg
September 1996**

I.3.A1 Central government personnel in the sample broken down by category and by grade

Cat. (1)	Grade (2)	Staff 1995 (3)
A	Secrétaire general	17A 17/1
	Directeur général	16A 16/1
	Conseiller	13A 13/2
	Conseiller adjoint	10B 11/3
	Conseiller adjoint	10A 10/1 - 10S
B	Chef administratif	22A 24/1
	Assistant administratif	20E 22/4
	Assistant Administratif	20A 20/1
C	Commis	30H 34/1
	Commis	30C 32/1
	Commis	30A 30/1
D	Agent administratif	42D 44/1
	Agent administratif	42B 42/3
	Agent administratif	42A 40/2

I.3.A2 Central government personnel, broken down by category

Cat. (1)	Sample		Population Central administration		Ratio Sample/Population %
	Numbers (2)	% (3)	Numbers (4)	% (5)	
A	8192	15.5	9853	16.6	83.1
B	20098	38.1	22409	37.7	89.7
C	17491	33.1	18759	31.6	93.2
D	6995	13.3	8411	14.2	83.2
Total	52776	100.0	59432	100.0	88.8

**I.3.B1.1 Yearly rates of pay of central government personnel in 1996
Unmarried official**

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	Secrétaire general 17A 17/1	2519939	0	3351449	1232383	0	1532099
	Directeur général 16A 16/1	2278773	0	2991506	1137622	0	1402311
	Conseiller 13A 13/2	1395161	0	2107894	785876	0	1073491
	Conseiller adjoint 10B 11/3	1132349	0	1733853	668105	0	923177
	Conseiller adjoint 10A 10/1 - 10S	1045526	0	1733853	635592	0	923177
B	Chef administratif 22A 24/1	914027	0	1358471	580252	0	768477
	Assistant administratif 20E 22/4	821809	0	1227255	537441	0	712577
	Assistant Administratif 20A 20/1	716219	0	1139616	490467	0	671081
C	Commis 30H 34/1	752199	0	987121	506906	0	627514
	Commis 30C 32/1	681376	0	865657	474158	0	555900
	Commis 30A 30/1	672644	0	865657	471143	0	555900
D	Agent administratif 42D 44/1	737689	0	837803	500748	0	542722
	Agent administratif 42B 42/3	683068	0	765056	476496	0	511451
	Agent administratif 42A 40/2	657662	0	765056	463459	0	511451

**I.3.B1.2 Yearly rates of pay of central government personnel in 1996
Married official with two children**

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	Secrétaire general 17A 17/1	2649167	0	3480677	1475323	0	1780607
	Directeur général 16A 16/1	2408001	0	3120734	1380262	0	1646331
	Conseiller 13A 13/2	1524389	0	2237122	1012064	0	1312159
	Conseiller adjoint 10B 11/3	1261577	0	1863081	894281	0	1160525
	Conseiller adjoint 10A 10/1 - 10S	1174754	0	1863081	861768	0	1160525
B	Chef administratif 22A 24/1	1043255	0	1487699	806116	0	994653
	Assistant administratif 20E 22/4	959843	0	1356483	759835	0	938753
	Assistant Administratif 20A 20/1	863059	0	1268844	710261	0	897257
C	Commis 30H 34/1	899039	0	1116349	728664	0	835563
	Commis 30C 32/1	828215	0	1003691	690928	0	784773
	Commis 30A 30/1	819484	0	1003691	687354	0	784773
D	Agent administratif 42D 44/1	894528	0	975636	722353	0	769184
	Agent administratif 42B 42/3	812296	0	911896	683280	0	735439
	Agent administratif 42A 40/2	804502	0	911896	678686	0	735439

**I.3.B2.1 Yearly rates of pay of central government personnel in 1995
Unmarried official**

Cat. (1)	Grade (2)		Gross			Net		
			Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	Secrétaire general	17A 17/1	2470627	0	3285815	1217803	0	1512202
	Directeur général	16A 16/1	2234196	0	2932938	1121272	0	1383935
	Conseiller	13A 13/2	1367929	0	2066671	775685	0	1054921
	Conseiller adjoint	10B 11/3	1110276	0	1699972	661038	0	912190
	Conseiller adjoint	10A 10/1 - 10S	1025157	0	1699972	623645	0	912190
B	Chef administratif	22A 24/1	896240	0	1331959	569772	0	758508
	Assistant administratif	20E 22/4	805842	0	1203318	528541	0	700555
	Assistant Administratif	20A 20/1	702323	0	1117400	483332	0	659617
C	Commis	30H 34/1	737597	0	967898	499043	0	618059
	Commis	30C 32/1	668164	0	848830	466539	0	549112
	Commis	30A 30/1	659604	0	848830	464499	0	549112
D	Agent administratif	42D 44/1	723372	0	821326	493255	0	536406
	Agent administratif	42B 42/3	669820	0	750202	469837	0	503507
	Agent administratif	42A 40/2	644916	0	750202	456570	0	503507

**I.3.B2.2 Yearly rates of pay of central government personnel in 1995
Married official with two children**

Cat. (1)	Grade (2)		Gross			Net		
			Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	Secrétaire general	17A 17/1	2597311	0	3412499	1457347	0	1757326
	Directeur général	16A 16/1	2380880	0	3059822	1359568	0	1623491
	Conseiller	13A 13/2	1494613	0	2193355	998465	0	1289413
	Conseiller adjoint	10B 11/3	1236960	0	1826656	883818	0	1146154
	Conseiller adjoint	10A 10/1 - 10S	1151841	0	1826656	846437	0	1146154
B	Chef administratif	22A 24/1	1022924	0	1458643	791256	0	981300
	Assistant administratif	20E 22/4	941158	0	1330002	748423	0	923347
	Assistant Administratif	20A 20/1	846270	0	1244084	698186	0	882409
C	Commis	30H 34/1	881544	0	1094582	718015	0	823359
	Commis	30C 32/1	812111	0	984145	681266	0	770362
	Commis	30A 30/1	803551	0	984145	675998	0	770362
D	Agent administratif	42D 44/1	867319	0	956641	709909	0	755244
	Agent administratif	42B 42/3	796504	0	894149	672037	0	722556
	Agent administratif	42A 40/2	788863	0	894149	667529	0	722556

Belgium

I.3.C. Changes in average remuneration by grade of official in central government Price index = 101.8

Cat. (1)	Grade (2)	Gross				Net				
		Salary		Index		Salary		Index		
		1996 (3)	1995 (4)	nomin. (5)	real (6)	1996 (7)	1995 (8)	nomin. (9)	real (10)	
A	Secrétaire general	17A 17/1	3000308	2941563	102.0	100.2	1505103	1486170	101.3	99.5
	Directeur général	16A 16/1	2699754	2646909	102.0	100.2	1391632	1372067	101.4	99.6
	Conseiller	13A 13/2	1816142	1780642	102.0	100.2	1045898	1029621	101.6	99.8
	Conseiller adjoint	10B 11/3	1497715	1468466	102.0	100.2	911522	900800	101.2	99.4
	Conseiller adjoint	10A 10/1 - 10S	1454304	1425907	102.0	100.2	895266	882107	101.5	99.7
B	Chef administratif	22A 24/1	1200863	1177442	102.0	100.2	787375	775209	101.6	99.8
	Assistant administratif	20E 22/4	1091348	1070080	102.0	100.2	737152	725217	101.6	99.8
	Assistant Administratif	20A 20/1	996935	977519	102.0	100.2	692267	680886	101.7	99.9
C	Commis	30H 34/1	938677	920405	102.0	100.2	674662	664119	101.6	99.8
	Commis	30C 32/1	844735	828313	102.0	100.2	626440	616820	101.6	99.8
	Commis	30A 30/1	840369	824033	102.0	100.2	624793	614993	101.6	99.8
D	Agent administratif	42D 44/1	858864	842165	102.0	100.2	633752	623704	101.8	99.8
	Agent administratif	42B 42/3	793079	777669	102.0	100.2	601667	591984	101.6	99.8
	Agent administratif	42A 40/2	784779	769533	102.0	100.2	597259	587541	101.7	99.9

I.3.D Total emoluments in central government in 1995 (in thousands)

Cat. (1)	Gross				Net			
	Sample		Population		Sample		Population	
	Value (2)	% (3)	Value (4)	% (5)	Value (6)	% (7)	Value (8)	% (9)
A	12314920	22.9	14811880	24.3	7490600	20.2	9009384	21.6
B	21104970	39.3	23531760	38.7	14376430	38.9	16029530	38.3
C	14865010	27.7	15942640	26.2	10984780	29.7	11781090	28.2
D	5452223	10.1	6555918	10.8	4144826	11.2	4983864	11.9
Total	53737120	100.0	60842190	100.0	36996620	100.0	41803860	100.0

I.3.E Changes in average remunerations by category of official in the central government Price index = 101.8

Cat. (1)	Gross				Net			
	1996 (2)	1995 (3)	Nominal Index (4)	Real Index (5)	1996 (6)	1995 (7)	Nominal Index (8)	Real Index (9)
A	1533233	1503286	102.0	100.2	927148	914380	101.4	99.6
B	1070972	1050103	102.0	100.2	727036	715317	101.6	99.8
C	866721	849866	102.0	100.2	637939	628023	101.6	99.8
D	794891	779446	102.0	100.2	602292	592541	101.6	99.8
Total	1044067	1023728	102.0	100.2	714435	703390	101.6	99.8

I.3.A1 Central government personnel in the sample broken down by category and by grade

Cat. [1]	Grade [2]	Staff 1996 [3]
A	Departementschef, direktør, afdelingschef	223
	Kontorchef, konsulent	562
	Ekspeditionssekretær, fuldmægtig	111
	Jurist/økonom	3150
B	Bogholder, afdelingsleder, kontorfuldmægtig	516
	Tjenestemandsansat overassistent, kancellist	178
	EDB-medarbejder, kontorfuldmægtig	773
C	Overassistent	915
	Tjenestemandsansat assistent	12
D	Faglært arbejder, assistent m.v.	1219
	Betjentformand, ministerial- og slobsbetjent	350
	Ikke-faglært arbejder, elev, rengøringsassistent	977

I.3.A2 Central government personnel, broken down by category

Cat. [1]	Sample		Population Central administration		Ratio Sample/Population % [6]
	Numbers [2]	% [3]	Numbers [4]	% [5]	
A	4046	45.0	4046	45.0	100.0
B	2382	26.5	2382	26.5	100.0
C	1231	13.7	1231	13.7	100.0
D	1327	14.8	1327	14.8	100.0
Total	8986	100.0	8986	100.0	100.0

Danmark

I.3.B1.1 Yearly rates of pay of central government personnel in 1996 Unmarried official

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	Departementschef, direktør, afdelingschef	0	468425	0	0	216637	0
	Kontorchef, konsulent	0	384799	0	0	187690	0
	Ekspeditionssekretær, fuldmægtig	0	298297	0	0	157611	0
	Jurist/økonom	0	259977	0	0	141813	0
B	Bogholder, afdelingsleder, kontorfuldmægtig	0	248958	0	0	138450	0
	Tjenestemandsansat overassistent, kancellist	0	210248	0	0	120515	0
	EDB-medarbejder, kontorfuldmægtig	0	233659	0	0	131564	0
	Overassistent	0	207136	0	0	119027	0
C	Tjenestemandsansat assistent	0	193158	0	0	112343	0
	Faglært arbejder, assistent m.v.	0	192209	0	0	111822	0
D	Betjentformand, ministerial- og slotsbetjent	0	205413	0	0	118133	0
	Ikke-faglært arbejder, elev, rengøringsassistent	0	157179	0	0	94719	0

I.3.B1.2 Yearly rates of pay of central government personnel in 1996 Married official with two children

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	Departementschef, direktør, afdelingschef	0	484559	0	0	252744	0
	Kontorchef, konsulent	0	400933	0	0	223797	0
	Ekspeditionssekretær, fuldmægtig	0	314431	0	0	193448	0
	Jurist/økonom	0	278111	0	0	176239	0
B	Bogholder, afdelingsleder, kontorfuldmægtig	0	265092	0	0	172673	0
	Tjenestemandsansat overassistent, kancellist	0	226382	0	0	152949	0
	EDB-medarbejder, kontorfuldmægtig	0	249793	0	0	165086	0
	Overassistent	0	223270	0	0	151316	0
C	Tjenestemandsansat assistent	0	209292	0	0	143982	0
	Faglært arbejder, assistent m.v.	0	208343	0	0	143466	0
D	Betjentformand, ministerial- og slotsbetjent	0	221547	0	0	150341	0
	Ikke-faglært arbejder, elev, rengøringsassistent	0	173313	0	0	125103	0

**I.3.B2.1 Yearly rates of pay of central government personnel in 1995
Unmarried official**

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	Departementschef, direktør, afdelingschef	0	437259	0	0	199469	0
	Kontorchef, konsulent	0	367307	0	0	175907	0
	Ekspeditionssekretær, fuldmægtig	0	292318	0	0	150642	0
	Jurist/økonom	0	254824	0	0	136348	0
B	Bogholder, afdelingsleder, kontorfuldmægtig	0	243976	0	0	133070	0
	Tjenestemandsanset overassistent, kancellist	0	205289	0	0	116476	0
	EDB-medarbejder, kontorfuldmægtig	0	229917	0	0	127320	0
	Overassistent	0	204946	0	0	116324	0
C	Tjenestemandsanset assistent	0	186488	0	0	108058	0
	Faglært arbejder, assistent m.v.	0	188600	0	0	108810	0
D	Betjentformand, ministerial- og slotsbetjent	0	200234	0	0	114156	0
	Ikke-faglært arbejder, elev, rengøringsassistent	0	152342	0	0	91492	0

**I.3.B2.2 Yearly rates of pay of central government personnel in 1995
Married official with two children**

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	Departementschef, direktør, afdelingschef	0	452359	0	0	239539	0
	Kontorchef, konsulent	0	382407	0	0	215726	0
	Ekspeditionssekretær, fuldmægtig	0	307418	0	0	188281	0
	Jurist/økonom	0	269924	0	0	171680	0
B	Bogholder, afdelingsleder, kontorfuldmægtig	0	259076	0	0	167906	0
	Tjenestemandsanset overassistent, kancellist	0	220389	0	0	148436	0
	EDB-medarbejder, kontorfuldmægtig	0	245017	0	0	181131	0
	Overassistent	0	220046	0	0	148257	0
C	Tjenestemandsanset assistent	0	201588	0	0	138642	0
	Faglært arbejder, assistent m.v.	0	203700	0	0	139729	0
D	Betjentformand, ministerial- og slotsbetjent	0	215334	0	0	145753	0
	Ikke-faglært arbejder, elev, rengøringsassistent	0	167442	0	0	120854	0

I.3.C. Changes in average remuneration by grade of official in central government
Price index = 102.0

Cat. (1)	Grade (2)	Gross				Net			
		Salary		Index		Salary		Index	
		1996 (3)	1995 (4)	nomin. (5)	real (6)	1996 (7)	1995 (8)	nomin. (9)	real (10)
A	Departementschef, direktør, afdelingschef	476492	444809	107.1	105.0	234691	219504	106.9	104.8
	Kontorchef, konsulent	392866	374857	104.8	102.7	205744	195817	105.1	103.0
	Ekspeditionssekretær, fuldmægtig	306364	299868	102.2	100.2	175530	169462	103.6	101.5
	Jurist/økonom	268044	262374	102.2	100.2	159026	154014	103.3	101.2
B	Bogholder, afdelingsleder, kontorfuldmægtig	257025	251526	102.2	100.2	155562	150498	103.4	101.3
	Tjenestemandeansat overassistent, kancellist	218315	212839	102.6	100.6	136732	132456	103.2	101.2
	EDB-medarbejder, kontorfuldmægtig	241726	237467	101.8	99.8	148325	144226	102.8	100.8
	Overassistent	215203	212496	101.3	99.3	135172	132291	102.2	100.2
C	Tjenestemandeansat assistent	201225	194038	103.7	101.7	128163	123350	103.9	101.9
	Faglært arbejder, assistent m.v.	200276	196150	102.1	100.1	127644	124270	102.7	100.7
D	Betjentformand, ministerial- og slotsbetjent	213480	207784	102.7	100.7	134237	129955	103.3	101.3
	Ikke-faglært arbejder, elev, rengøringsassistent	165246	159892	103.3	101.3	109911	106173	103.5	101.5

I.3.D Total emoluments in central government in 1995 (in thousands)

Cat. (1)	Gross				Net			
	Sample		Population		Sample		Population	
	Value (2)	% (3)	Value (4)	% (5)	Value (6)	% (7)	Value (8)	% (9)
A	1169626	53.5	1169625	53.5	662953	51.0	662952	51.0
B	545669	25.0	545668	25.0	333761	25.7	333761	25.7
C	241435	11.0	241435	11.0	152965	11.8	152964	11.8
D	228939	10.5	228938	10.5	149215	11.5	149215	11.5
Total	2185668	100.0	2185666	100.0	1298894	100.0	1298892	100.0

I.3.E Changes in average remunerations by category of official in the central government
Price index = 102.0

Cat. (1)	Gross				Net			
	1996 (2)	1995 (3)	Nominal Index (4)	Real Index (5)	1996 (6)	1995 (7)	Nominal Index (8)	Real Index (9)
A	297922	289082	103.1	101.0	170138	163854	103.8	101.8
B	233102	229080	101.8	99.8	143974	140118	102.8	100.7
C	200285	196129	102.1	100.1	127649	124261	102.7	100.7
D	177968	172524	103.2	101.1	116327	112445	103.5	101.4
Total	249650	243230	102.6	100.6	149435	144546	103.4	101.4

I.3.A1 Central government personnel in the sample broken down by category and by grade

Cat. [1]	Grade [2]	Staff 1986 [3]
A	B9	125
	B6	267
	B3	1156
	A16	612
	A15	2485
B	A13/A14	1654
	A13	3149
	A12	1266
C	A11	682
	A9	1069
	A8	753
D	A7	559
	A5	671
	A4	528

I.3.A2 Central government personnel, broken down by category

Cat. [1]	Sample		Population Central administration		Ratio Sample/Population %
	Numbers [2]	% [3]	Numbers [4]	% [5]	
A	6319	42.1	6356	38.8	99.4
B	5097	34.0	5398	32.9	94.4
C	2381	15.9	2984	18.2	79.8
D	1197	8.0	1659	10.1	72.2
Total	14984	100.0	16397	100.0	91.4

Germany

I.3.B1.1 Monthly rates of pay of central government personnel in 1996 Unmarried official

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Mid. (4)	Max. (5)	Min. (6)	Mid. (7)	Max. (8)
A	B9	16462	0	0	9284	0	0
	B6	14021	0	0	8235	0	0
	B3	11777	0	0	7268	0	0
	A16	6715	8431	10719	4829	5756	6813
	A15	6098	7581	9560	4468	5313	6303
	A13/A14	5844	5594	8518	4318	4167	5801
B	A13	5497	6538	7752	4107	4729	5404
	A12	4933	0	7021	3755	0	5003
	A11	4655	5463	6407	3578	4086	4652
C	A9	3816	4406	5040	3035	3418	3823
	A8	3520	0	4674	2838	0	3591
	A7	3421	3904	4306	2772	3092	3354
D	A5	3114	3411	3708	2566	2767	2964
	A4	3091	0	3582	2552	0	2879

I.3.B1.2 Monthly rates of pay of central government personnel in 1996 Married official with two children

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Mid. (4)	Max. (5)	Min. (6)	Mid. (7)	Max. (8)
A	B9	16994	0	0	12059	0	0
	B6	14553	0	0	10729	0	0
	B3	12710	0	0	9417	0	0
	A16	7647	9363	11651	6194	7327	8780
	A15	7030	8474	10493	5777	6744	8056
	A13/A14	6776	6526	9450	5607	5434	7382
B	A13	6429	7470	8684	5369	6074	6884
	A12	5865	0	7953	4987	0	6399
	A11	5587	6395	7339	4797	5347	5987
C	A9	4748	5338	5928	4233	4625	5030
	A8	4443	0	5597	4015	0	4804
	A7	4344	4827	5229	3944	4288	4556
D	A5	4080	4377	4674	3753	3967	4180
	A4	4057	0	4548	3738	0	4090

**I.3.B2.1 Monthly rates of pay of central government personnel in 1995
Unmarried official**

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Mid. (4)	Max. (5)	Min. (6)	Mid. (7)	Max. (8)
A	B9	16462	0	0	9302	0	0
	B6	14021	0	0	8254	0	0
	B3	11777	0	0	7288	0	0
	A16	6715	8431	10719	4852	5776	6829
	A15	6098	7581	9560	4492	5333	6320
	A13/A14	5844	5594	8518	4340	4188	5819
B	A13	5497	6538	7752	4127	4750	5423
	A12	4933	0	7021	3770	0	5024
	A11	4655	5463	6407	3591	4104	4671
C	A9	3816	4406	5041	3030	3424	3835
	A8	3520	0	4674	2824	0	3601
	A7	3421	3904	4306	2755	3087	3357
D	A5	3114	3411	3708	2537	2748	2953
	A4	3091	0	3582	2522	0	2865

**I.3.B2.2 Monthly rates of pay of central government personnel in 1995
Married official with two children**

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Mid. (4)	Max. (5)	Min. (6)	Mid. (7)	Max. (8)
A	B9	17134	0	0	12034	0	0
	B6	14693	0	0	10735	0	0
	B3	12450	0	0	9415	0	0
	A16	7387	9103	11391	6109	7285	8766
	A15	6770	8214	10233	5670	6682	8029
	A13/A14	6516	6266	9190	5489	5306	7340
B	A13	6169	7210	8424	5237	5981	6825
	A12	5604	0	7693	4823	0	6322
	A11	5387	6195	7079	4678	5271	5886
C	A9	4548	5138	5727	4046	4488	4926
	A8	4243	0	5397	3813	0	4683
	A7	4144	4627	5029	3738	4104	4406
D	A5	3880	4177	4474	3534	3761	3987
	A4	3857	0	4348	3516	0	3891

Germany

I.3.C. Changes in average remuneration by grade of official in central government Price index = 101.4

Cat. (1)	Grade (2)	Gross				Net			
		Salary 1996 (3)	Salary 1995 (4)	Index nomin. (5)	Index real (6)	Salary 1996 (7)	Salary 1995 (8)	Index nomin. (9)	Index real (10)
A	B9	16728	16798	99.6	98.2	10672	10667	100.0	98.7
	B6	14287	14357	99.5	98.1	9482	9493	99.9	98.5
	B3	12244	12114	101.1	99.7	8343	8350	99.9	98.5
	A16	9088	8958	101.5	100.1	6617	6603	100.2	98.8
	A15	8208	8076	101.6	100.2	6110	6088	100.4	99.0
	A13/A14	7118	6988	101.9	100.5	5452	5414	100.7	99.3
B	A13	7062	6932	101.9	100.5	5428	5391	100.7	99.3
	A12	6443	6313	102.1	100.7	5036	4985	101.0	99.6
	A11	5974	5864	101.9	100.5	4741	4700	100.9	99.5
C	A9	4879	4779	102.1	100.7	4027	3958	101.7	100.3
	A8	4559	4459	102.2	100.8	3812	3730	102.2	100.8
	A7	4339	4239	102.4	100.9	3668	3575	102.6	101.2
D	A5	3894	3794	102.6	101.2	3366	3253	103.5	102.0
	A4	3820	3720	102.7	101.3	3315	3199	103.6	102.2

I.3.D Total emoluments in central government in 1995 (in thousands)

Cat. (1)	Gross				Net			
	Value Sample (2)	% (3)	Value Population (4)	% (5)	Value Sample (6)	% (7)	Value Population (8)	% (9)
A	57333	53.8	57668	50.9	41833	51.5	42078	48.5
B	33819	31.8	35816	31.6	28491	32.6	28055	32.3
C	10836	10.2	13579	12.0	9038	11.1	11327	13.0
D	4502	4.2	6239	5.5	3865	4.8	5357	6.2
Total	106490	100.0	113302	100.0	81228	100.0	86817	100.0

I.3.E Changes in average remunerations by category of official in the central government Price index = 101.4

Cat. (1)	1996 (2)	Gross			1996 (6)	1995 (7)	Net	
		1995 (3)	Nominal Index (4)	Real Index (5)			Nominal Index (8)	Real Index (9)
A	9190	9073	101.3	99.9	6639	6620	100.3	98.9
B	6763	6635	101.9	100.5	5238	5197	100.8	99.4
C	4851	4551	102.2	100.8	3875	3796	102.1	100.7
D	3861	3761	102.7	101.2	3344	3229	103.5	102.1
Total	7026	6910	101.7	100.3	5341	5295	100.9	99.5

I.3.A1 Central government personnel in the sample broken down by category and by grade

Cat. [1]	Grade [2]	Staff 1986 [3]
A	3	2530
	4	1113
	7	6524
	10	2758
	12	5819
	13	2517
B	15	868
	4	154
	5	479
	6	3258
	9	860
	12	1415
	16	546
	17	817
C	18	349
	9	3434
	12	3175
	14	7588
	17	5309
	20	5356
D	22	3031
	23	2852
	18	51
	19	1894
	22	921
	23	975
	25	621
26	6510	
	27	889

I.3.A2 Central government personnel, broken down by category

Cat. [1]	Sample		Population Central administration		Ratio Sample/Population
	Numbers [2]	% [3]	Numbers [4]	% [5]	% [6]
A	21929	30.4	28424	25.1	77.1
B	7878	10.9	10816	9.6	72.8
C	30555	42.3	57555	50.8	53.1
D	11861	16.4	16413	14.5	72.3
Total	72223	100.0	113208	100.0	63.6

Greece

I.3.B1.1 Monthly rates of pay of central government personnel in 1996 Unmarried official

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	3	0	314092	0	0	242358	0
	4	0	306360	0	0	236474	0
	7	0	283364	0	0	222279	0
	10	0	260826	0	0	204859	0
	12	0	245375	0	0	195795	0
	13	0	237510	0	0	189629	0
	15	0	217704	0	0	173493	0
B	4	0	308348	0	0	237402	0
	5	0	300678	0	0	234953	0
	6	0	293101	0	0	229247	0
	9	0	270693	0	0	211985	0
	12	0	248118	0	0	197386	0
	16	0	213090	0	0	169497	0
	17	0	205223	0	0	163519	0
C	18	0	197382	0	0	158762	0
	9	0	291146	0	0	227410	0
	12	0	269302	0	0	210635	0
	14	0	254742	0	0	199766	0
	17	0	232285	0	0	184924	0
	20	0	209641	0	0	167452	0
	22	0	190489	0	0	153213	0
D	23	0	182694	0	0	147083	0
	18	0	238864	0	0	186579	0
	19	0	226189	0	0	178307	0
	22	0	204032	0	0	162442	0
	23	0	193364	0	0	154271	0
	25	0	178486	0	0	142661	0
	26	0	170896	0	0	136710	0
	27	0	159630	0	0	130281	0

I.3.B1.2 Monthly rates of pay of central government personnel in 1996
Married official with two children

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	3	0	338082	0	0	265341	0
	4	0	328486	0	0	259470	0
	7	0	306166	0	0	242580	0
	10	0	284390	0	0	227891	0
	12	0	270193	0	0	217016	0
	13	0	262986	0	0	211454	0
	15	0	244402	0	0	198174	0
B	4	0	330435	0	0	260384	0
	5	0	323028	0	0	254963	0
	6	0	315635	0	0	249260	0
	9	0	293846	0	0	234780	0
	12	0	272699	0	0	218531	0
	16	0	240090	0	0	194383	0
	17	0	232884	0	0	188706	0
C	18	0	225619	0	0	182982	0
	9	0	313766	0	0	247484	0
	12	0	292499	0	0	233449	0
	14	0	278733	0	0	222752	0
	17	0	258130	0	0	207043	0
	20	0	237242	0	0	192619	0
	22	0	219273	0	0	177997	0
D	23	0	212352	0	0	172597	0
	18	0	261556	0	0	207741	0
	19	0	251783	0	0	202165	0
	22	0	231281	0	0	186118	0
	23	0	221417	0	0	178415	0
	25	0	207915	0	0	168010	0
	26	0	201282	0	0	162811	0
	27	0	191583	0	0	156208	0

**I.3.B2.1 Monthly rates of pay of central government personnel in 1995
Unmarried official**

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	3	0	288557	0	0	228791	0
	4	0	281492	0	0	223267	0
	7	0	260479	0	0	206834	0
	10	0	239885	0	0	193563	0
	12	0	225767	0	0	182359	0
	13	0	218580	0	0	176659	0
	15	0	200137	0	0	162861	0
B	4	0	283309	0	0	224125	0
	5	0	276300	0	0	218663	0
	6	0	269376	0	0	213265	0
	9	0	248900	0	0	200239	0
	12	0	228272	0	0	183919	0
	16	0	195920	0	0	159291	0
	17	0	188732	0	0	153552	0
C	18	0	181567	0	0	147831	0
	9	0	267591	0	0	211559	0
	12	0	247630	0	0	198965	0
	14	0	234326	0	0	188472	0
	17	0	213805	0	0	172292	0
	20	0	193114	0	0	157504	0
	22	0	175268	0	0	142697	0
D	23	0	168147	0	0	137029	0
	18	0	217127	0	0	173108	0
	19	0	207374	0	0	165480	0
	22	0	187126	0	0	151013	0
	23	0	177379	0	0	143296	0
	25	0	163784	0	0	132509	0
	26	0	156848	0	0	129099	0
	27	0	146554	0	0	121161	0

**I.3.B2.2 Monthly rates of pay of central government personnel in 1995
Married official with two children**

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	3	0	310424	0	0	248082	0
	4	0	303455	0	0	243005	0
	7	0	282974	0	0	229136	0
	10	0	262991	0	0	213559	0
	12	0	249964	0	0	203306	0
	13	0	243350	0	0	199955	0
	15	0	225968	0	0	185471	0
B	4	0	304527	0	0	243291	0
	5	0	298446	0	0	238533	0
	6	0	291662	0	0	235478	0
	9	0	271667	0	0	225581	0
	12	0	252263	0	0	204702	0
	16	0	222011	0	0	181943	0
	17	0	215399	0	0	176671	0
C	18	0	208733	0	0	171520	0
	9	0	289947	0	0	233806	0
	12	0	270432	0	0	218467	0
	14	0	257799	0	0	208844	0
	17	0	238893	0	0	195806	0
	20	0	219728	0	0	180572	0
	22	0	202910	0	0	166873	0
D	23	0	196559	0	0	161813	0
	18	0	241214	0	0	195982	0
	19	0	232246	0	0	188891	0
	22	0	213435	0	0	173979	0
	23	0	204384	0	0	166946	0
	25	0	191995	0	0	158142	0
	26	0	185907	0	0	153281	0
	27	0	177007	0	0	146190	0

I.3.C. Changes in average remuneration by grade of official in central government
Price index = 108.8

Cat. (1)	Grade (2)	Gross				Net			
		Salary		Index		Salary		Index	
		1996 (3)	1995 (4)	nomin. (5)	real (6)	1996 (7)	1995 (8)	nomin. (9)	real (10)
A	3	325087	299491	108.5	99.8	253850	238437	106.5	97.9
	4	317423	292474	108.5	99.8	247972	233136	106.4	97.8
	7	294765	271727	108.5	99.7	232430	217985	106.6	98.0
	10	272608	251438	108.4	99.7	216375	203561	106.3	97.7
	12	257784	237866	108.4	99.6	206406	192833	107.0	98.4
	13	250248	230985	108.3	99.6	200542	188307	106.5	97.9
	15	231053	213053	108.4	99.7	185834	174166	106.7	98.1
B	4	319392	293918	108.7	99.9	248893	233708	106.5	97.9
	5	311853	287373	108.5	99.7	244958	228598	107.2	98.5
	6	304368	280519	108.5	99.7	239254	224372	106.6	98.0
	9	282270	260284	108.4	99.7	223383	212910	104.9	96.4
	12	260409	240268	108.4	99.6	207959	194311	107.0	98.4
	16	226590	208966	108.4	99.7	181940	170617	106.6	98.0
	17	219054	202066	108.4	99.6	176113	165112	106.7	98.0
C	18	211501	195150	108.4	99.6	170872	159676	107.0	98.4
	9	302456	278769	108.5	99.7	237447	222683	106.6	98.0
	12	280901	259031	108.4	99.7	222042	208716	106.4	97.8
	14	266738	246063	108.4	99.6	211259	198658	106.3	97.7
	17	245208	226349	108.3	99.6	195984	184049	106.5	97.9
D	20	223442	206421	108.2	99.5	180036	169038	106.5	97.9
	22	204881	189089	108.4	99.6	165605	154785	107.0	98.3
	23	197523	182353	108.3	99.6	159840	149421	107.0	98.3
	18	249210	229171	108.7	99.9	197160	184545	106.8	98.2
	19	238986	219810	108.7	99.9	190236	177176	107.4	98.7
	22	217657	200281	108.7	99.9	174280	162496	107.3	98.6
	23	207391	190882	108.6	99.9	166343	155121	107.2	98.6
	25	193201	177890	108.6	99.8	155336	145326	106.9	98.2
	26	186089	171378	108.6	99.8	149761	141190	106.1	97.5
	27	175607	161781	108.5	99.8	143245	133676	107.2	98.5

I.3.D Total emoluments in central government in 1995 (in thousands)

Cat. (1)	Gross				Net			
	Sample		Population		Sample		Population	
	Value (2)	% (3)	Value (4)	% (5)	Value (6)	% (7)	Value (8)	% (9)
A	5652279	33.6	7326388	27.9	4554951	33.4	5904050	27.7
B	2007958	11.9	2756800	10.5	1618324	11.9	2221856	10.4
C	7013306	41.6	13210830	50.2	5684670	41.7	10707940	50.3
D	2168536	12.9	3000773	11.4	1774116	13.0	2454983	11.5
Total	16842080	100.0	26294590	100.0	13632060	-100.0	21288830	100.0

I.3.E Changes in average remunerations by category of official in the central government
Price index = 108.8

Cat. (1)	Gross				Net			
	1996 (2)	1995 (3)	Nominal Index (4)	Real Index (5)	1996 (6)	1995 (7)	Nominal Index (8)	Real Index (9)
A	279519	257754	108.4	99.7	221498	207714	106.6	98.0
B	276456	254882	108.5	99.7	218886	205423	106.6	97.9
C	248750	229531	108.4	99.6	198204	186047	106.5	97.9
D	198596	182829	108.6	99.8	159498	149576	106.6	98.0
Total	251851	232268	108.4	99.7	200417	188051	106.6	98.0

I.3.A1 Central government personnel in the sample broken down by category and by grade

Cat. (1)	Grade (2)		Staff 1986 (3)
A	Subdirector general A30		1766
	Consejero tecnico A28		4373
	Jefe de servicio A A26		4053
B	Jefe de servicio B B26		3037
	Jefe de seccion B24		6971
	Jefe de negociado BC20		6013
	Administrativo C16		2616
C	Auxiliar ADTVO. 16 D16		10835
	Auxiliar ADTVO. 14 D14		11727
	Auxiliar ADTVO. 12 D12		9356
D	Conductor E10		5568
	Portero E9		1495

I.3.A2 Central government personnel, broken down by category

Cat. (1)	Sample		Population Central administration		Ratio Sample/Population
	Numbers (2)	% (3)	Numbers (4)	% (5)	% (6)
A	10192	15.0	21605	14.1	47.2
B	18637	27.4	57645	37.5	32.3
C	32018	47.1	68049	44.3	47.1
D	7063	10.4	6455	4.2	109.4
Total	67910	100.0	153754	100.0	44.2

**I.3.B1.1 Yearly rates of pay of central government personnel in 1996
Unmarried official**

Cat. (1)	Grade (2)		Gross			Net		
			Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	Subdirector general	A30	6986466	7964633	10102148	4928301	5492851	6728798
	Consejero tecnico	A28	4691994	6707416	8553565	3464991	4721804	5916982
	Jefe de servicio A	A26	4160598	5804161	6613136	3086794	4111436	4652036
B	Jefe de servicio B	B26	3709096	4995205	6157064	2814156	3856096	4427586
	Jefe de seccion	B24	2837824	3539380	4679465	2165182	2676686	3506565
	Jefe de negociado	BC20	2371025	2918282	3811693	1847222	2254025	2919323
	Administrativo	C16	1992546	2598152	3318459	1607354	2062344	2575051
C	Auxiliar ADTVO. 16	D16	1747014	2162361	2901949	1456734	1744052	2293040
	Auxiliar ADTVO. 14	D14	1672746	2034429	2623312	1423348	1674719	2114237
	Auxiliar ADTVO. 12	D12	1598422	1870466	2100738	1354988	1567842	1733071
D	Conductor	E10	1834420	2555474	2933124	1552438	2073613	2335954
	Portero	E9	1372632	1656869	2158848	1191734	1425780	1758070

**I.3.B1.2 Yearly rates of pay of central government personnel in 1996
Married official with two children**

Cat. (1)	Grade (2)		Gross			Net		
			Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	Subdirector general	A30	6986466	7964633	10102148	4998165	5572498	6829819
	Consejero tecnico	A28	4691994	6707416	8553565	3511911	4788878	6002418
	Jefe de servicio A	A26	4160598	5804161	6613136	3128400	4169478	4718167
B	Jefe de servicio B	B26	3709096	4995205	6157064	2888338	3706048	4489156
	Jefe de seccion	B24	2837824	3539380	4679465	2221938	2747474	3553360
	Jefe de negociado	BC20	2371025	2918282	3811693	1894643	2312391	2995556
	Administrativo	C16	1992546	2598152	3318459	1647205	2114307	2641420
C	Auxiliar ADTVO. 16	D16	1747014	2162361	2901949	1509145	1787299	2351079
	Auxiliar ADTVO. 14	D14	1672746	2034429	2623312	1473531	1715408	2166703
	Auxiliar ADTVO. 12	D12	1598422	1870466	2100738	1402942	1623956	1775086
D	Conductor	E10	1834420	2555474	2933124	1607471	2124723	2394616
	Portero	E9	1372632	1656869	2158848	1232913	1475486	1801247

**I.3.B2.1 Yearly rates of pay of central government personnel in 1995
Unmarried official**

Cat. (1)	Grade (2)		Gross			Net		
			Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	Subdirector general	A30	6709290	7648296	9658675	4724294	5266933	6424645
	Consejero tecnico	A28	4533306	6446768	8192342	3341471	4530767	5658645
	Jefe de servicio A	A26	4019886	5584867	6338765	2976068	3948809	4450845
B	Jefe de servicio B	B26	3583656	4817750	5898176	2714000	3520906	4234871
	Jefe de seccion	B24	2741844	3436092	4496256	2086970	2694473	3363281
	Jefe de negociado	BC20	2290826	2835582	3668103	1780336	2186667	2804297
	Administrativo	C16	1925152	2519216	3185731	1549162	1996362	2467328
C	Auxiliar ADTVO. 16	D16	1687922	2086602	2783260	1404433	1679781	2195409
	Auxiliar ADTVO. 14	D14	1616162	1967503	2517759	1372173	1616706	2025398
	Auxiliar ADTVO. 12	D12	1544378	1813153	2029582	1306131	1517141	1671336
D	Conductor	E10	1751919	2436413	2787058	1478939	1973163	2215470
	Portero	E9	1326194	1597658	2085734	1148835	1372057	1695943

**I.3.B2.2 Yearly rates of pay of central government personnel in 1995
Married official with two children**

Cat. (1)	Grade (2)		Gross			Net		
			Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	Subdirector general	A30	6708290	7648296	9658675	4791377	5343416	6521232
	Consejero tecnico	A28	4533306	6446768	8192342	3386804	4595235	5740569
	Jefe de servicio A	A26	4019886	5584867	6338765	3016267	4004658	4514233
B	Jefe de servicio B	B26	3583656	4817750	5898176	2785674	3569084	4293853
	Jefe de seccion	B24	2741844	3436092	4496256	2141806	2663195	3408244
	Jefe de negociado	BC20	2290826	2835582	3668103	1826152	2243379	2877659
	Administrativo	C16	1925152	2519216	3185731	1587665	2046746	2531042
C	Auxiliar ADTVO. 16	D16	1687922	2086602	2783260	1455071	1721513	2251074
	Auxiliar ADTVO. 14	D14	1616162	1967503	2517759	1420657	1666056	2075753
	Auxiliar ADTVO. 12	D12	1544378	1813153	2029582	1352463	1571536	1711927
D	Conductor	E10	1751919	2436413	2787058	1531497	2021891	2271211
	Portero	E9	1326194	1597658	2085734	1188620	1419987	1737658

I.3.C. Changes in average remuneration by grade of official in central government
Price index = 103.6

Cat. (1)	Grade (2)	Gross				Net				
		Salary		Index		Salary		Index		
		1996 (3)	1995 (4)	nominal (5)	real (6)	1996 (7)	1995 (8)	nominal (9)	real (10)	
A	Subdirector general	A30	8351083	8005254	104.3	100.7	5758405	5511983	104.5	100.8
	Consejero tecnico	A28	6650992	6390806	104.1	100.5	4734481	4542249	104.2	100.6
	Jefe de servicio A	A26	5525965	5314506	104.0	100.4	3977719	3818480	104.2	100.6
B	Jefe de servicio B	B26	4953789	4766528	103.9	100.3	3663564	3519732	104.1	100.5
	Jefe de seccion	B24	3685556	3558064	103.6	100.0	2811868	2709662	103.8	100.2
	Jefe de negociado	BC20	3033667	2931504	103.5	99.9	2370527	2286415	103.7	100.1
	Administrativo	C16	2636386	2543366	103.7	100.1	2107947	2029718	103.9	100.2
C	Auxiliar ADTVO. 16	D16	2270441	2185928	103.9	100.3	1856892	1784547	104.1	100.4
	Auxiliar ADTVO. 14	D14	2110162	2033808	103.8	100.1	1761324	1694457	103.9	100.3
	Auxiliar ADTVO. 12	D12	1856542	1795704	103.4	99.8	1576314	1521756	103.6	100.0
D	Conductor	E10	2441006	2325130	105.0	101.3	2014803	1915362	105.2	101.5
	Portero	E9	1729450	1669862	103.6	100.0	1480872	1427183	103.8	100.2

I.3.D Total emoluments in central government in 1995 (in millions)

Cat. (1)	Gross				Net			
	Sample		Population		Sample		Population	
	Value (2)	% (3)	Value (4)	% (5)	Value (6)	% (7)	Value (8)	% (9)
A	63624	30.7	134870	27.9	45074	28.1	95547	25.7
B	63560	30.7	196593	40.7	48636	30.4	150434	40.5
C	64554	31.2	137199	28.4	53622	33.5	113965	30.7
D	15443	7.5	14113	2.9	12798	8.0	11696	3.1
Total	207181	100.0	482775	100.0	160131	100.0	371642	100.0

I.3.E Changes in average remunerations by category of official in the central government
Price index = 103.6

Cat. (1)	Gross				Net			
	1996 (2)	1995 (3)	Nominal Index (4)	Real Index (5)	1996 (6)	1995 (7)	Nominal Index (8)	Real Index (9)
A	6498189	6242540	104.1	100.5	4610962	4422461	104.3	100.6
B	3534630	3410409	103.6	100.0	2709456	2609671	103.8	100.2
C	2090791	2016185	103.7	100.1	1739901	1674760	103.9	100.3
D	2290394	2186432	104.8	101.1	1901787	1812031	105.0	101.3
Total	3259604	3139924	103.8	100.2	2513632	2417135	104.0	100.4

I.3.A1 Central government personnel in the sample broken down by category and by grade

Cat. (1)	Grade (2)	Staff 1998 (3)
A	Directeur C-E	140
	Directeur B-C	
	Administrateur civil hors classe, chef d service et sous-directeur	1116
	Attaché principal d'administration centrale et administrateur civil	2666
	Attaché d'administration centrale	2966
B	Secrétaire administratif de classe exceptionnelle	828
	Secrétaire administratif de classe supérieure	739
	Secrétaire administratif de classe normale	4225
C	Adjoint administratif principal	3827
	Adjoint administratif	7674
	Agent administratif de 1ère classe et de 2ème classe	3463
	Chef de garage et magasinier chef	576
	Ouvrier professionnel principal	788
	Magasinier de 1ère classe	1444
	Magasinier de 2ème classe	1681

I.3.A2 Central government personnel, broken down by category

Cat. (1)	Sample		Population Central administration		Ratio Sample/Population %
	Numbers (2)	% (3)	Numbers (4)	% (5)	
A	6888	21.4	6888	21.4	100.0
B	5792	18.0	5792	18.0	100.0
C	16328	50.8	16328	50.8	100.0
D*	3125	9.7	3125	9.7	100.0
Total	32133	100.0	32133	100.0	100.0

* Eurostat classification.

**I.3.B1.1 Monthly rates of pay of central government personnel in 1996
Unmarried official**

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	Directeur C-E	43639	0	51686	27122	0	31160
	Directeur B-C	37675	0	45563	24128	0	28086
	Administrateur civil hors classe, chef de service et sous-directeur	25705	0	35830	17519	0	23172
	Attaché principal d' administration centrale et administrateur civil	14922	0	27006	10934	0	18042
	Attaché d'administration centrale	11970	0	22301	9074	0	15375
B	Secrétaire administratif de classe exceptionnelle	12674	0	17410	9494	0	12486
	Secrétaire administratif de classe supérieure	11726	0	16424	8888	0	11852
	Secrétaire administratif de classe normale	9536	0	15545	7455	0	11298
C	Adjoint administratif principal	8140	0	11732	6446	0	8851
	Adjoint administratif	7918	0	11213	6293	0	8507
	Agent administratif de 1ère classe et de 2ème classe	7761	0	10760	6193	0	8194
	Chef de garage et magasinier chef	8140	0	11732	6447	0	8851
	Ouvrier professionnel principal	7918	0	11213	6293	0	8507
	Magasinier de 1ère classe	7761	0	10760	6193	0	8194
	Magasinier de 2ème classe	7604	0	10242	6190	0	7836

**I.3.B1.2 Monthly rates of pay of central government personnel in 1996
Married official with two children**

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	Directeur C-E	43639	0	51686	33625	0	38795
	Directeur B-C	37675	0	45563	29793	0	34861
	Administrateur civil hors classe, chef de service et sous-directeur	25705	0	35830	21593	0	28609
	Attaché principal d' administration centrale et administrateur civil	14922	0	27006	13350	0	22273
	Attaché d'administration centrale	11970	0	22301	11059	0	18960
B	Secrétaire administratif de classe exceptionnelle	12674	0	17410	11579	0	15307
	Secrétaire administratif de classe supérieure	11726	0	16424	10821	0	14509
	Secrétaire administratif de classe normale	9536	0	15545	9304	0	13807
C	Adjoint administratif principal	8140	0	11732	8065	0	10786
	Adjoint administratif	7918	0	11213	7875	0	10384
	Agent administratif de 1ère classe et de 2ème classe	7761	0	10760	7753	0	10207
	Chef de garage et magasinier chef	8140	0	11732	8065	0	10786
	Ouvrier professionnel principal	7918	0	11213	7875	0	10384
	Magasinier de 1ère classe	7761	0	10760	7753	0	10207
	Magasinier de 2ème classe	7604	0	10242	7750	0	9767

I.3.B2.1 Monthly rates of pay of central government personnel in 1995
Unmarried official

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	Directeur C-E	43038	0	50972	26956	0	30976
	Directeur B-C	37155	0	44935	23975	0	27916
	Administrateur civil hors classe, chef de service et sous-directeur	25351	0	35336	17415	0	23031
	Attaché principal d' administration centrale et administrateur civil	14717	0	26633	10879	0	17936
	Attaché d'administration centrale	11805	0	21993	9029	0	15284
B	Secrétaire administratif de classe exceptionnelle	12499	0	17169	9448	0	12420
	Secrétaire administratif de classe supérieure	11564	0	16197	8845	0	11791
	Secrétaire administratif de classe normale	9405	0	15331	7360	0	11239
C	Adjoint administratif principal	8027	0	11571	6427	0	8808
	Adjoint administratif	7809	0	11059	6274	0	8473
	Agent administratif de 1ère classe et de 2ème classe	7655	0	10612	6166	0	8162
	Chef de garage et magasinier chef	8027	0	11571	6427	0	8808
	Ouvrier professionnel principal	7809	0	11059	6274	0	8473
	Magasinier de 1ère classe	7655	0	10612	6166	0	8162
	Magasinier de 2ème classe	7499	0	10100	6118	0	7806

I.3.B2.2 Monthly rates of pay of central government personnel in 1995
Married official with two children

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	Directeur C-E	43038	0	50972	33397	0	38533
	Directeur B-C	37155	0	44935	29590	0	34625
	Administrateur civil hors classe, chef de service et sous-directeur	25351	0	35336	21458	0	28413
	Attaché principal d' administration centrale et administrateur civil	14717	0	26633	13322	0	22134
	Attaché d'administration centrale	11805	0	21993	11122	0	18947
B	Secrétaire administratif de classe exceptionnelle	12499	0	17169	11587	0	15229
	Secrétaire administratif de classe supérieure	11564	0	16197	10918	0	14443
	Secrétaire administratif de classe normale	9405	0	15331	9227	0	13765
C	Adjoint administratif principal	8027	0	11571	8083	0	10877
	Adjoint administratif	7809	0	11059	7896	0	10519
	Agent administratif de 1ère classe et de 2ème classe	7655	0	10612	7763	0	10212
	Chef de garage et magasinier chef	8027	0	11571	8083	0	10877
	Ouvrier professionnel principal	7809	0	11059	7896	0	10519
	Magasinier de 1ère classe	7655	0	10612	7763	0	10212
	Magasinier de 2ème classe	7499	0	10100	7703	0	9776

I.3.C. Changes in average remuneration by grade of official in central government. Price index = 102.3

Cat. (1)	Grade (2)	Gross				Net			
		Salary 1996 (3)	Salary 1995 (4)	Index nomin. (5)	Index real (6)	Salary 1996 (7)	Salary 1995 (8)	Index nomin. (9)	Index real (10)
A	Directeur C-E	47663	47005	101.4	99.1	32676	32466	100.6	98.4
	Directeur B-C	41619	41045	101.4	99.1	29217	29027	100.7	98.4
	Administrateur civil hors classe, chef de service et sous-directeur	30768	30344	101.4	99.1	22723	22579	100.6	98.4
	Attaché principal d' administration centrale et administrateur civil	20964	20675	101.4	99.1	16150	16068	100.5	98.3
	Attaché d'administration centrale	17136	16899	101.4	99.1	13617	13571	100.3	98.1
B	Secrétaire administratif de classe exceptionnelle	15042	14834	101.4	99.1	12217	12171	100.4	98.1
	Secrétaire administratif de classe supérieure	14075	13881	101.4	99.1	11518	11499	100.2	97.9
	Secrétaire administratif de classe normale	12541	12368	101.4	99.1	10466	10398	100.7	98.4
C	Adjoint administratif principal	9936	9799	101.4	99.1	8537	8549	99.9	97.6
	Adjoint administratif	9566	9434	101.4	99.1	8265	8291	99.7	97.4
	Agent administratif de 1ère classe et de 2ème classe	9261	9134	101.4	99.1	8087	8076	100.1	97.9
	Chef de garage et magasinier chef	9936	9799	101.4	99.1	8537	8549	99.9	97.6
	Ouvrier professionnel principal	9566	9434	101.4	99.1	8265	8291	99.7	97.4
	Magasinier de 1ère classe	9261	9134	101.4	99.1	8087	8076	100.1	97.9
	Magasinier de 2ème classe	8923	8800	101.4	99.1	7886	7851	100.4	98.2

I.3.D Total emoluments in central government in 1995 (in thousands)

Cat. (1)	Gross				Net			
	Value (2)	Sample % (3)	Value (4)	Population % (5)	Value (6)	Sample % (7)	Value (8)	Population % (9)
A	145269	36.1	145268	36.1	112590	33.5	112589	33.5
B	74795	18.6	74795	18.6	62506	18.6	62506	18.6
C	154605	38.4	154604	38.4	135761	40.4	135760	40.4
D	27981	6.9	27980	6.9	24858	7.4	24858	7.4
Total	402649	100.0	402647	100.0	335715	100.0	335713	100.0

I.3.E Changes in average remunerations by category of official in the central government. Price index = 102.3

Cat. (1)	Gross				Net			
	1996 (2)	1995 (3)	Nominal Index (4)	Real Index (5)	1996 (6)	1995 (7)	Nominal Index (8)	Real Index (9)
A	21385	21090	101.4	99.1	16425	16346	100.5	98.2
B	13094	12914	101.4	99.1	10850	10792	100.5	98.3
C	9801	9469	101.4	99.1	8300	8315	99.8	97.6
D	9079	8954	101.4	99.1	7979	7955	100.3	98.0
Total	12706	12531	101.4	99.1	10470	10448	100.2	98.0

I.3.A1 Central government personnel in the sample broken down by category and by grade

Cat. (1)	Grade (2)	Staff 1996 (3)
A	Secretary	18
	Assistant Secr.	89
	Principal	336
	Assistant Princ.	942
	Admin. Officer	83
B	HEO	1730
	EO	2259
C	Staff Officer	1001
	Clerical Off.	4281
	Clerical Assis.	5083
D	Head messenger	17
	Paperkeeper	189
	Messenger	527

I.3.A2 Central government personnel, broken down by category

Cat. (1)	Sample		Population Central administration		Ratio Sample/Population %
	Numbers (2)	% (3)	Numbers (4)	% (5)	
A	1468	8.9	1468	8.9	100.0
B	3989	24.1	3989	24.1	100.0
C	10365	62.6	10365	62.6	100.0
D	733	4.4	733	4.4	100.0
Total	16555	100.0	16555	100.0	100.0

**I.3.B1.1 Monthly rates of pay of central government personnel in 1996
Unmarried official**

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	Secretary	6348	6348	6348	3397	3397	3397
	Assistant Secr.	3762	4138	4326	2130	2314	2406
	Principal	2948	3198	3450	1731	1854	1977
	Assistant Princ.	2209	2455	2620	1369	1490	1570
	Admin. Officer	1167	1706	2039	865	1124	1286
B	HEO	1621	1815	2039	1083	1176	1286
	EO	785	1326	1678	636	941	1111
C	Staff Officer	1239	1422	1543	899	987	1046
	Clerical Off.	691	927	1238	569	717	899
	Clerical Assis.	685	860	1017	565	670	778
D	Head messenger	1031	1073	1105	788	817	835
	Paperkeeper	890	927	1006	691	716	771
	Messenger	878	941	951	682	726	733

**I.3.B1.2 Monthly rates of pay of central government personnel in 1996
Married official with two children**

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	Secretary	6415	6415	6415	3728	3728	3728
	Assistant Secr.	3828	4205	4393	2461	2645	2737
	Principal	3015	3285	3516	2062	2185	2308
	Assistant Princ.	2276	2522	2686	1700	1821	1901
	Admin. Officer	1234	1773	2106	1006	1375	1605
B	HEO	1688	1881	2106	1317	1450	1605
	EO	852	1393	1745	810	1114	1356
C	Staff Officer	1305	1489	1609	1054	1180	1263
	Clerical Off.	758	994	1305	742	872	1053
	Clerical Assis.	739	914	1071	723	826	915
D	Head messenger	1085	1127	1159	922	946	983
	Paperkeeper	944	981	1060	843	864	908
	Messenger	932	995	1005	836	872	878

**I.3.B2.1 Monthly rates of pay of central government personnel in 1995
Unmarried official**

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	Secretary	6254	6254	6254	3337	3337	3337
	Assistant Secr.	3706	4077	4262	2088	2270	2361
	Principal	2904	3151	3399	1695	1817	1938
	Assistant Princ.	2177	2419	2581	1339	1458	1537
	Admin. Officer	1150	1569	1859	842	1044	1183
B	HEO	1587	1729	1872	1052	1121	1190
	EO	774	1244	1548	624	888	1034
C	Staff Officer	1220	1401	1520	876	963	1020
	Clerical Off.	681	914	1220	558	704	876
	Clerical Assis.	675	847	1002	554	658	765
D	Head messenger	1016	1057	1088	774	798	813
	Paperkeeper	877	913	992	678	704	758
	Messenger	865	927	937	670	713	721

**I.3.B2.2 Monthly rates of pay of central government personnel in 1995
Married official with two children**

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	Secretary	6307	6307	6307	3639	3639	3639
	Assistant Secr.	3759	4129	4315	2391	2572	2663
	Principal	2957	3204	3451	1998	2119	2240
	Assistant Princ.	2229	2472	2634	1641	1760	1839
	Admin. Officer	1202	1622	1911	972	1261	1460
B	HEO	1640	1782	1925	1273	1370	1469
	EO	826	1297	1601	775	1037	1246
C	Staff Officer	1273	1454	1573	1020	1145	1226
	Clerical Off.	734	967	1273	718	837	1020
	Clerical Assis.	715	887	1042	699	792	879
D	Head messenger	1056	1097	1128	887	910	927
	Paperkeeper	917	953	1032	809	829	873
	Messenger	905	967	977	802	837	843

I.3.C. Changes in average remuneration by grade of official in central government
Price index = 101.4[#]

Cat. (1)	Grade (2)	Gross				Net			
		Salary 1996 (3)	Salary 1995 (4)	Index nomin. (5)	Index real (6)	Salary 1996 (7)	Salary 1995 (8)	Index nomin. (9)	Index real (10)
A	Secretary	6381	6280	101.6	100.2	3562	3488	102.1	100.7
	Assistant Secr.	4108	4041	101.7	100.3	2449	2391	102.4	101.0
	Principal	3232	3178	101.7	100.3	2019	1988	102.6	101.2
	Assistant Princ.	2461	2419	101.8	100.4	1642	1598	102.9	101.5
	Admin. Officer	1671	1552	107.6	106.1	1210	1127	107.4	105.9
B	HEO	1858	1756	105.8	104.4	1320	1248	105.9	104.5
	EO	1296	1215	106.7	105.2	994	934	106.5	105.0
C	Staff Officer	1434	1407	102.0	100.6	1071	1042	102.8	101.4
	Clerical Off.	986	965	102.2	100.8	809	786	102.9	101.5
	Clerical Assis.	881	861	102.3	100.9	746	725	103.0	101.5
D	Head messenger	1096	1074	102.1	100.7	878	851	103.2	101.7
	Paperkeeper	968	947	102.2	100.8	799	775	103.0	101.6
	Messenger	950	930	102.2	100.8	788	764	103.1	101.6

I.3.D Total emoluments in central government in 1995 (in thousands)

Cat. (1)	Sample		Gross		Sample		Net	
	Value (2)	% (3)	Value (4)	% (5)	Value (6)	% (7)	Value (8)	% (9)
A	3948	19.4	3947	19.4	2534	16.4	2533	16.4
B	5782	28.4	5782	28.4	4265	27.6	4265	27.6
C	9916	48.8	9915	48.8	8089	52.4	8089	52.4
D	687	3.4	687	3.4	564	3.6	563	3.6
Total	20333	100.0	20331	100.0	15452	100.0	15450	100.0

I.3.E Changes in average remunerations by category of official in the central government
Price index = 101.4[#]

Cat. (1)	Gross				Net			
	1996 (2)	1995 (3)	Nominal Index (4)	Real Index (5)	1996 (6)	1995 (7)	Nominal Index (8)	Real Index (9)
A	2741	2689	101.9	100.5	1776	1726	102.9	101.5
B	1540	1450	106.2	104.8	1135	1069	106.2	104.7
C	978	957	102.2	100.8	803	780	102.9	101.5
D	958	938	102.2	100.8	793	769	103.1	101.6
Total	1269	1228	103.3	101.9	969	933	103.6	102.4

[#] Average between May and August.

I.3.A1 Central government personnel in the sample broken down by category and by grade

Cat. (1)	Grade (2)	Staff 1994 (3)
A	Dirigente generale	412
	Dirigente super.	1677
	Primo Dirigente	2984
	IX Qualifica	16218
	VIII Qualifica	7216
B	VII Qualifica	59380
	Segretario princ. VI Qualifica	20985
C	Coadiutore princ. V Qualifica	89270
	Coadiutore princ. IV Qualifica	53481
D	Commesso Capo III Qualifica	25758
	Commesso Capo II Qualifica	700

I.3.A2 Central government personnel, broken down by category

Cat. (1)	Sample		Population Central administration		Ratio Sample/Population % (6)
	Numbers (2)	% (3)	Numbers (4)	% (5)	
A	87887	31.6	89538	32.0	98.2
B	20985	7.5	20985	7.5	100.0
C	142751	51.3	142751	51.0	100.0
D	26458	9.5	26458	9.5	100.0
Total	278081	100.0	279732	100.0	99.4

**I.3.B1.1 Monthly rates of pay of central government personnel in 1996
Unmarried official**

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	Dirigente generale	6091844	0	6870997	3888327	0	4268079
	Dirigente super.	4945890	0	5710237	3256162	0	3673153
	Primo Dirigente	3668414	0	4509891	2513526	0	2981230
	IX Qualifica	3529763	0	3828581	2435220	0	2610966
	VIII Qualifica	3205227	0	3504046	2246121	0	2421966
	VII Qualifica	2921992	0	3185603	2081118	0	2234181
	B	Segretario princ. VI Qualifica	2658357	0	2808797	1917340	0
C	Coadiutore princ. V Qualifica	2489963	0	2630110	1808711	0	1888953
	Coadiutore princ. IV Qualifica	2352390	0	2483871	1719945	0	1793996
D	Commesso Capo III Qualifica	2223614	0	2333031	1636957	0	1695131
	Commesso Capo II Qualifica	2074159	0	2179242	1540270	0	1595365

**I.3.B1.2 Monthly rates of pay of central government personnel in 1996
Married official with two children**

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	Dirigente generale	6091844	0	6870997	3987935	0	4367687
	Dirigente super.	4945890	0	5710237	3355770	0	3772761
	Primo Dirigente	3668414	0	4509891	2613134	0	3080838
	IX Qualifica	3529763	0	3828581	2534826	0	2710574
	VIII Qualifica	3205227	0	3504046	2345728	0	2521574
	VII Qualifica	2921992	0	3185603	2180721	0	2333789
	B	Segretario princ. VI Qualifica	2658357	0	2808797	2016948	0
C	Coadiutore princ. V Qualifica	2489963	0	2630110	1908319	0	1988561
	Coadiutore princ. IV Qualifica	2352390	0	2483871	1819553	0	1893604
D	Commesso Capo III Qualifica	2223614	0	2333031	1736565	0	1794739
	Commesso Capo II Qualifica	2074159	0	2179242	1639878	0	1694873

**I.3.B2.1 Monthly rates of pay of central government personnel in 1995
Unmarried official**

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	Dirigente generale	5970260	0	6727528	3815616	0	4178449
	Dirigente super.	4945890	0	5710237	3251978	0	3662623
	Primo Dirigente	3668414	0	4509891	2511112	0	2971927
	IX Qualifica	3307678	0	3606497	2310483	0	2461593
	VIII Qualifica	3007143	0	3305962	2135545	0	2286754
	VII Qualifica	2742742	0	3006353	1977415	0	2113062
B	Segretario princ. VI Qualifica	2501107	0	2651547	1821320	0	1895181
C	Coadiutore princ. V Qualifica	2346296	0	2486444	1721156	0	1788618
	Coadiutore princ. IV Qualifica	2218140	0	2349621	1638064	0	1700125
D	Commesso Capo III Qualifica	2097697	0	2207114	1560545	0	1608741
	Commesso Capo II Qualifica	1975659	0	2080742	1481352	0	1526864

**I.3.B2.2 Monthly rates of pay of central government personnel in 1995
Married official with two children**

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	Dirigente generale	5970260	0	6727528	3915224	0	4278057
	Dirigente super.	4945890	0	5710237	3351586	0	3762231
	Primo Dirigente	3668414	0	4509891	2610720	0	3071535
	IX Qualifica	3307678	0	3606497	2410091	0	2561202
	VIII Qualifica	3007143	0	3305962	2235153	0	2386362
	VII Qualifica	2742742	0	3006353	2077023	0	2212670
B	Segretario princ. VI Qualifica	2501107	0	2651547	1920927	0	1994789
C	Coadiutore princ. V Qualifica	2346296	0	2486444	1820764	0	1888226
	Coadiutore princ. IV Qualifica	2218140	0	2349621	1737672	0	1799733
D	Commesso Capo III Qualifica	2097697	0	2207114	1660153	0	1708349
	Commesso Capo II Qualifica	1975659	0	2080742	1580960	0	1626472

I.3.C. Changes in average remuneration by grade of official in central government
Price index = 103.9

Cat. (1)	Grade (2)	Gross				Net			
		Salary		Index		Salary		Index	
		1996 (3)	1995 (4)	nomin. (5)	real (6)	1996 (7)	1995 (8)	nomin. (9)	real (10)
A	Dirigente generale	6481421	6348894	102.1	98.3	4128007	4048837	102.0	98.2
	Dirigente super.	5328064	5328064	100.0	96.2	3514462	3507105	100.2	96.4
	Primo Dirigente	4089153	4089153	100.0	96.2	2797182	2791324	100.2	96.4
	IX Qualifica	3679172	3457088	106.4	102.4	2572897	2435842	105.6	101.7
	VIII Qualifica	3354637	3156553	106.3	102.3	2383848	2260954	105.4	101.5
	VII Qualifica	3053798	2874548	106.2	102.2	2207452	2095043	105.4	101.4
B	Segretario princ. VI Qualifica	2733577	2576327	106.1	102.1	2010934	1908054	105.4	101.4
C	Coadiutore princ. V Qualifica	2560037	2416370	105.9	102.0	1898636	1804691	105.2	101.3
	Coadiutore princ. IV Qualifica	2418131	2283881	105.9	101.9	1806775	1718899	105.1	101.2
D	Commesso Capo III Qualifica	2278323	2152406	105.9	101.9	1715848	1634447	105.0	101.0
	Commesso Capo II Qualifica	2126701	2028201	104.9	100.9	1617622	1553912	104.1	100.2

I.3.D Total emoluments in central government in 1995 (in millions)

Cat. (1)	Gross				Net			
	Sample		Population		Sample		Population	
	Value (2)	% (3)	Value (4)	% (5)	Value (6)	% (7)	Value (8)	% (9)
A	273288	37.8	278422	38.3	196101	36.8	199785	37.3
B	54064	7.5	54064	7.4	40041	7.5	40040	7.5
C	337854	46.8	337853	46.5	253033	47.5	253033	47.2
D	56861	7.9	56861	7.8	43188	8.1	43187	8.1
Total	722067	100.0	727200	100.0	532363	100.0	536045	100.0

I.3.E Changes in average remunerations by category of official in the central government
Price index = 103.9

Cat. (1)	Gross				Net			
	1996 (2)	1995 (3)	Nominal Index (4)	Real Index (5)	1996 (6)	1995 (7)	Nominal Index (8)	Real Index (9)
A	3288517	3109542	105.8	101.8	2343337	2231288	105.0	101.1
B	2733577	2576327	106.1	102.1	2010934	1908054	105.4	101.4
C	2506872	2366734	105.9	101.9	1864221	1772549	105.2	101.2
D	2274311	2149120	105.8	101.9	1713249	1632316	105.0	101.0
Total	2752076	2599636	105.9	101.9	2014305	1916286	105.1	101.2

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I.3.A1 Central government personnel in the sample broken down by category and by grade

Cat. (1)	Grade (2)	Staff 1986 (3)
A	18	5
	17	19
	16bis	6
	16	34
	15	10
	14	3
	13	8
	12	38
B	13bis	37
	13	15
	12	56
	11	32
	10	4
	9	26
	8	38
	7	45
C	8ter	13
	8bis	6
	8	11
	7	9
	6	19
D	4	12
	7quater	5
	7	1
	6	11
	5	13
	4	3
	3	9
	2	5

I.3.A2 Central government personnel, broken down by category

Cat. (1)	Sample		Population Central administration		Ratio Sample/Population %
	Numbers (2)	% (3)	Numbers (4)	% (5)	
A	123	24.9	123	24.9	100.0
B	253	51.3	253	51.3	100.0
C	70	14.2	70	14.2	100.0
D	47	9.5	47	9.5	100.0
Total	493	100.0	493	100.0	100.0

I.3.B1.1 Monthly rates of pay of central government personnel in 1996
Unmarried official

Cat. [1]	Grade [2]	Gross			Net		
		Min. [3]	Avg. [4]	Max. [5]	Min. [6]	Avg. [7]	Max. [8]
A	18	218606	0	306049	133132	0	173728
	17	200390	0	284644	124903	0	163799
	16bis	198113	0	281911	123859	0	162519
	16	186727	0	270525	118719	0	157225
	15	173063	0	241379	112536	0	143721
	14	163954	0	234547	108398	0	140543
	13	145738	0	234547	100169	0	140543
	12	145738	0	186727	100169	0	118719
B	13bis	154847	0	221339	104306	0	134409
	13	145738	0	212231	100169	0	130251
	12	132075	0	193558	93985	0	121810
	11	121144	0	179895	88767	0	115827
	10	110214	0	164866	83187	0	108817
	9	99284	0	164866	77212	0	108817
	8	92452	0	136173	73298	0	95865
	7	88353	0	117046	70908	0	86690
C	8ter	103383	0	161222	79506	0	107188
	8bis	96551	0	154391	75684	0	104097
	8	92452	0	141638	73298	0	98331
	7	80156	0	125243	65905	0	90763
	6	74235	0	111125	62182	0	83638
D	4	72868	0	102016	61300	0	78751
	7quarter	84710	0	128431	68691	0	92292
	7	80156	0	123876	65905	0	90084
	6	74235	0	115223	62182	0	85789
	5	70136	0	111125	59558	0	83638
	4	68314	0	102016	58351	0	78751
	3	63304	0	91996	55034	0	73030
2	64671	0	78333	55953	0	64761	

I.3.B1.2 Monthly rates of pay of central government personnel in 1996 Married official with two children

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)	
A	18	240698	0	328141	186028	0	227314	
	17	222482	0	306736	176475	0	217384	
	16bis	220205	0	304003	175260	0	216104	
	16	208819	0	292617	169121	0	210810	
	15	195155	0	263471	161480	0	197286	
	14	186046	0	256639	156211	0	193976	
	13	166427	0	256639	144508	0	193976	
	12	166427	0	208819	144508	0	169121	
	B	13bis	176274	0	243431	150450	0	187410
		13	166427	0	234323	144508	0	182705
12		152346	0	215650	135681	0	172860	
11		141415	0	201987	128664	0	165351	
10		130484	0	186958	121442	0	156750	
9		119554	0	186958	113599	0	156750	
8		112722	0	156444	107782	0	138281	
7		108624	0	137316	103980	0	125963	
C		8ter	123654	0	183165	116710	0	154522
		8bis	116822	0	175781	111541	0	150167
	8	112722	0	161996	107782	0	141736	
	7	100426	0	145514	96376	0	131291	
	6	94506	0	131396	90883	0	122048	
	4	93139	0	122287	89614	0	115673	
D	7quater	104980	0	148702	100600	0	133351	
	7	100426	0	144147	96376	0	130433	
	6	94506	0	135494	90883	0	124750	
	5	90407	0	131396	87080	0	122048	
	4	88585	0	122287	85391	0	115673	
	3	83575	0	112267	80743	0	107359	
	2	84941	0	98604	82010	0	94685	

I.3.B2.1 Monthly rates of pay of central government personnel in 1995
Unmarried official

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	18	209722	0	293610	131035	0	170641
	17	192245	0	273075	122943	0	160907
	16bis	190060	0	270454	121944	0	159693
	16	179138	0	259530	116899	0	154486
	15	166029	0	231568	110854	0	141274
	14	157291	0	225014	106860	0	138183
	13	139815	0	225014	98769	0	138183
	12	139815	0	179138	98769	0	116899
	13bis	148553	0	212343	102815	0	132233
	13	139815	0	203605	98769	0	128188
B	12	126706	0	185691	92644	0	119944
	11	116221	0	172583	87453	0	113904
	10	105734	0	158165	81929	0	107259
	9	95248	0	158165	76007	0	107259
	8	88695	0	130639	72150	0	94498
	7	84763	0	112289	69791	0	85445
	8ter	99180	0	154670	78294	0	105613
	8bis	92627	0	148116	74505	0	102614
C	8	88695	0	135882	72150	0	96975
	7	76898	0	120153	64867	0	89407
	6	71218	0	106608	61152	0	82352
	4	69907	0	97870	60313	0	77541
	7quater	81267	0	123211	67588	0	90960
D	7	76898	0	118842	64867	0	88802
	6	71218	0	110541	61152	0	84509
	5	67285	0	106608	58566	0	82352
	4	65538	0	97870	57390	0	77541
	3	60731	0	88257	54120	0	71882
	2	62043	0	75150	55029	0	63726

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I.3.B2.2 Monthly rates of pay of central government personnel in 1995 Married official with two children

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	18	231277	0	315165	183768	0	224091
	17	213800	0	294630	174381	0	214356
	18bis	211615	0	292009	173124	0	213147
	16	200692	0	281085	167025	0	208153
	15	187584	0	253122	159469	0	194889
	14	178845	0	246568	154228	0	191663
	13	160024	0	246568	142632	0	191663
	12	160024	0	200692	142632	0	167025
	13bis	169470	0	233897	148553	0	185163
	13	160024	0	225160	142632	0	180454
B	12	146514	0	207245	134185	0	170758
	11	136029	0	194138	128207	0	163303
	10	125542	0	179719	120735	0	154765
	9	115056	0	179719	111912	0	154765
	8	108503	0	150446	105711	0	136490
	7	104570	0	132096	101991	0	125518
	8ter	118988	0	176083	115633	0	152585
	8bis	112435	0	168997	109431	0	148241
C	8	108503	0	155774	105711	0	139941
	7	96706	0	139961	94548	0	130128
	6	91026	0	126583	89174	0	121414
	4	89715	0	117678	87934	0	114392
	7quater	101075	0	143019	98681	0	132228
D	7	96706	0	138650	94548	0	129795
	6	91026	0	130349	89174	0	124292
	5	87093	0	126416	85453	0	121414
	4	85345	0	117678	83799	0	114392
	3	80539	0	108065	79252	0	105297
	2	81851	0	94958	80493	0	92895

I.3.C. Changes in average remuneration by grade of official in central government
Price index = 101.2

Cat. (1)	Grade (2)	Gross				Net			
		Salary		Index		Salary		Index	
		1996 (3)	1995 (4)	nomn. (5)	real (6)	1996 (7)	1995 (8)	nomn. (9)	real (10)
A	18	273374	262444	104.2	102.9	180050	177384	101.5	100.3
	17	253563	243438	104.2	102.9	170640	168147	101.5	100.3
	16bis	251058	241035	104.2	102.9	169436	166977	101.5	100.3
	16	239672	230111	104.2	102.9	163969	161641	101.4	100.2
	15	218267	209576	104.1	102.9	153756	151622	101.4	100.2
	14	210297	201930	104.1	102.9	149782	147734	101.4	100.2
	13	200838	192855	104.1	102.9	144799	142812	101.4	100.2
	12	176928	169917	104.1	102.9	133129	131331	101.4	100.2
	13bis	198973	191066	104.1	102.9	144144	142191	101.4	100.2
	13	189680	182151	104.1	102.9	139408	137511	101.4	100.2
B	12	173407	166539	104.1	102.9	131084	129383	101.3	100.1
	11	161110	154743	104.1	102.9	124602	123217	101.1	99.9
	10	148131	142290	104.1	102.9	117549	116172	101.2	100.0
	9	142666	137047	104.1	102.9	114095	112486	101.4	100.2
	8	124448	119571	104.1	102.8	103807	102212	101.6	100.4
	7	112835	108430	104.1	102.8	96885	95686	101.3	100.1
	8ter	142856	137230	104.1	102.9	114482	113031	101.3	100.1
	8bis	135886	130544	104.1	102.9	110372	108698	101.5	100.3
C	8	127202	122214	104.1	102.8	105287	103694	101.5	100.3
	7	112835	108430	104.1	102.8	96084	94738	101.4	100.2
	6	102816	98859	104.0	102.8	89688	88523	101.3	100.1
	4	97578	93793	104.0	102.8	86335	85045	101.5	100.3
	7quater	116706	112143	104.1	102.8	98734	97364	101.4	100.2
	7	112151	107774	104.1	102.8	95700	94503	101.3	100.1
D	6	104865	100784	104.0	102.8	90901	89782	101.2	100.0
	5	100766	96851	104.0	102.8	88081	86946	101.3	100.1
	4	95301	91808	104.0	102.8	84542	83281	101.5	100.3
	3	87786	84398	104.0	102.8	79042	77638	101.8	100.6
	2	81637	78501	104.0	102.8	74352	73036	101.8	100.6

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I.3.D Total emoluments in central government in 1995 (in thousands)

Cat. (1)	Gross				Net			
	Value (2)	Sample %	Value (4)	Population %	Value (6)	Sample %	Value (8)	Population %
A	25909	34.1	25908	34.1	18672	31.3	18671	31.3
B	37635	49.6	37635	49.6	30091	50.5	30091	50.5
C	7891	10.4	7891	10.4	6817	11.4	6817	11.4
D	4463	5.9	4463	5.9	4013	6.7	4012	6.7
Total	75898	100.0	75897	100.0	59594	100.0	59591	100.0

I.3.E Changes in average remunerations by category of official in the central government Price index = 101.2

Cat. (1)	Gross				Net			
	1996 (2)	1995 (3)	Nominal Index (4)	Real Index (5)	1996 (6)	1995 (7)	Nominal Index (8)	Real Index (9)
A	219376	210640	104.1	102.9	153969	151804	101.4	100.2
B	154869	148755	104.1	102.9	120528	118938	101.3	100.1
C	117309	112733	104.1	102.8	98764	97391	101.4	100.2
D	98794	94959	104.0	102.8	86619	85383	101.4	100.2
Total	160284	153952	104.1	102.9	122548	120679	101.4	100.2

I.3.A1 Central government personnel in the sample broken down by category and by grade

Cat. (1)	Grade (2)	Staff 1996 (3)
A	18	100
	17	272
	16	540
	15	1124
	14	2785
	13	3495
	12	5911
	11	10480
	10	7484
	B	9
8		8044
7		18457
6		10554
5		13755
C	4	7179
	3	1827
	3	1827
D	2	395
	1	109

I.3.A2 Central government personnel, broken down by category

Cat. (1)	Sample		Population Central administration		Ratio Sample/Population %
	Numbers (2)	% (3)	Numbers (4)	% (5)	
A	24707	23.2	24707	23.2	100.0
B	56652	53.2	56652	53.2	100.0
C	22761	21.4	22761	21.4	100.0
D	2331	2.2	2331	2.2	100.0
Total	106451	100.0	106451	100.0	100.0

The Netherlands

I.3.B1.1 Yearly rates of pay of central government personnel in 1996 Unmarried official

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	18	136801	0	182046	74319	0	91726
	17	124367	0	165497	69535	0	85359
	16	114615	0	150472	65784	0	79579
	15	105618	0	136801	62332	0	74319
	14	97246	0	124367	58486	0	69535
	13	92546	0	113066	56226	0	65188
	12	80633	0	104108	50125	0	61741
	11	66363	0	91348	43209	0	55850
B	10	49281	0	78133	34471	0	48802
	9	51624	0	71258	35854	0	45520
	8	46898	0	62965	33064	0	41604
	7	41000	0	55595	29584	0	38125
C	6	36296	0	50400	26807	0	35131
	5	34053	0	48109	25484	0	33779
	4	32883	0	45752	24794	0	32388
D	3	32244	0	43409	24420	0	31005
	2	31617	0	39763	24052	0	28854
	1	31001	0	36296	23692	0	26807

I.3.B1.2 Yearly rates of pay of central government personnel in 1996 Married official with two children

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	18	136801	0	182046	82405	0	99811
	17	124367	0	165497	77621	0	93445
	16	114615	0	150472	73869	0	87664
	15	105618	0	136801	69898	0	82405
	14	97246	0	124367	65872	0	77621
	13	92546	0	113066	63612	0	73273
	12	80633	0	104108	57510	0	69172
	11	66363	0	91348	50594	0	63036
B	10	49281	0	78133	40981	0	56188
	9	51624	0	71258	42364	0	52905
	8	46898	0	62965	39574	0	48990
	7	41000	0	55595	36094	0	44707
C	6	36296	0	50400	33317	0	41641
	5	34053	0	48109	31994	0	40289
	4	32883	0	45752	31304	0	38898
D	3	32244	0	43409	30930	0	37515
	2	31617	0	39763	30563	0	35364
	1	31001	0	36296	30202	0	33317

I.3.B2.1 Yearly rates of pay of central government personnel in 1995
Unmarried official

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)	
A	18	136500	0	181635	72937	0	90338	
	17	124097	0	165132	68156	0	83976	
	16	114358	0	150131	64401	0	78192	
	15	105375	0	136500	60398	0	72937	
	14	97032	0	124097	57642	0	68156	
	13	92345	0	112817	55384	0	63807	
	12	80451	0	103887	49222	0	60364	
	11	66220	0	91144	42278	0	54805	
	B	10	49169	0	77957	33901	0	47879
		9	51506	0	71103	35266	0	44566
		8	46793	0	62825	32513	0	40688
7		40904	0	55475	29072	0	37244	
6		36194	0	50292	26320	0	34557	
C	5	33968	0	48007	25020	0	33222	
	4	32795	0	45657	24334	0	31849	
	3	32141	0	43307	23953	0	30476	
D	3	32141	0	43307	23953	0	30476	
	2	31525	0	39677	23592	0	28355	
	1	30908	0	36194	23232	0	26320	

I.3.B2.2 Yearly rates of pay of central government personnel in 1995
Married official with two children

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)	
A	18	136500	0	181635	80375	0	97775	
	17	124097	0	165132	75593	0	91413	
	16	114358	0	150131	71838	0	85630	
	15	105375	0	136500	68375	0	80375	
	14	97032	0	124097	64472	0	75593	
	13	92345	0	112817	62214	0	71244	
	12	80451	0	103887	56052	0	67776	
	11	66220	0	91144	49108	0	61635	
	B	10	49169	0	77957	39981	0	54708
		9	51506	0	71103	41346	0	51396
		8	46793	0	62825	38592	0	47518
7		40904	0	55475	35152	0	43665	
6		36194	0	50292	32400	0	40637	
C	5	33968	0	48007	31099	0	39302	
	4	32795	0	45657	30414	0	37929	
	3	32141	0	43307	30033	0	36556	
D	3	32141	0	43307	30033	0	36556	
	2	31525	0	39677	29672	0	34435	
	1	30908	0	36194	29312	0	32400	

The Netherlands

I.3.C. Changes in average remuneration by grade of official in central government. Price index = 101.8

Cat. (1)	Grade (2)	Gross				Net			
		Salary 1996 (3)	Salary 1995 (4)	Index nomin. (5)	Index real (6)	Salary 1996 (7)	Salary 1995 (8)	Index nomin. (9)	Index real (10)
A	18	159424	159068	100.2	98.5	87065	85356	102.0	100.2
	17	144932	144615	100.2	98.4	81490	79785	102.1	100.3
	16	132544	132245	100.2	98.5	76724	75015	102.3	100.5
	15	121210	120938	100.2	98.5	72239	70521	102.4	100.6
	14	110807	110565	100.2	98.4	67879	66466	102.1	100.3
	13	102806	102581	100.2	98.4	64575	63162	102.2	100.4
	12	92371	92169	100.2	98.4	59637	58354	102.2	100.4
	11	78856	78682	100.2	98.4	53122	51957	102.2	100.4
B	10	63707	63563	100.2	98.5	45111	44118	102.3	100.4
	9	61441	61305	100.2	98.5	44161	43144	102.4	100.5
	8	54932	54809	100.2	98.5	40808	39828	102.5	100.6
	7	48298	48190	100.2	98.5	37128	36283	102.3	100.5
C	6	43348	43243	100.2	98.5	34224	33479	102.2	100.4
	5	41081	40988	100.2	98.5	32887	32161	102.3	100.4
	4	39318	39226	100.2	98.5	31846	31132	102.3	100.5
D	3	37827	37724	100.3	98.5	30968	30255	102.4	100.5
	2	35890	35801	100.2	98.5	29708	29014	102.4	100.6
	1	33649	33551	100.3	98.5	28505	27816	102.5	100.7

I.3.D Total emoluments in central government in 1995 (in thousands)

Cat. (1)	Gross				Net			
	Value Sample (2)	% (3)	Value Population (4)	% (5)	Value Sample (6)	% (7)	Value Population (8)	% (9)
A	2298429	36.5	2298428	36.5	1445302	32.6	1445302	32.6
B	3004991	47.7	3004990	47.7	2196159	49.5	2196159	49.5
C	914308	14.5	914308	14.5	721139	16.3	721139	16.3
D	86641	1.4	86641	1.4	69767	1.6	69767	1.6
Total	6304369	100.0	6304367	100.0	4432367	100.0	4432367	100.0

I.3.E Changes in average remunerations by category of official in the central government. Price index = 101.8

Cat. (1)	Gross				Net			
	1996 (2)	1995 (3)	Nominal Index (4)	Real Index (5)	1996 (6)	1995 (7)	Nominal Index (8)	Real Index (9)
A	93232	93027	100.2	98.4	59799	58498	102.2	100.4
B	53163	53043	100.2	98.5	39668	38766	102.3	100.5
C	40264	40170	100.2	98.5	32404	31683	102.3	100.5
D	37269	37169	100.3	98.5	30639	29930	102.4	100.6
Total	59357	59223	100.2	98.5	42569	41636	102.3	100.5

I.3.A1 Central government personnel in the sample broken down by category and by grade

Cat. [1]	Grade [2]	Staff 1995 [3]
A	A1/8 u.9	76
	A1/6 u.7	401
	A1/4 u.5	865
	A1/2 u.3	1620
	A1/G u.1	89
B	A2/7 u.8	106
	A2/5 u.6	872
	A2/3 u.4	980
	A2/G,1 u.2	237
C	A3/7 u.8	18
	A3/5 u.6	93
	A3/3 u.4	452
	A3/G,1,2, A4/2	1277
D	A4/G u.1, A5	1059
	A6, A7	387

I.3.A2 Central government personnel, broken down by category

Cat. [1]	Sample		Population Central administration		Ratio Sample/Population % [6]
	Numbers [2]	% [3]	Numbers [4]	% [5]	
A	3051	35.8	3051	35.8	100.0
B	2195	25.7	2195	25.7	100.0
C	1840	21.6	1840	21.6	100.0
D	1446	16.9	1446	16.9	100.0
Total	8532	100.0	8532	100.0	100.0

Austria

I.3.B1.1 Yearly rates of pay of central government personnel in 1996 Unmarried official

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	A1/8 u.9	0	952796	0	0	627512	0
	A1/8 u.7	0	598644	0	0	444973	0
	A1/4 u.5	0	472928	0	0	316200	0
	A1/2 u.3	0	322307	0	0	235247	0
	A1/G u.1	0	375594	0	0	274184	0
B	A2/7 u.8	0	338564	0	0	247253	0
	A2/5 u.6	0	278898	0	0	203707	0
	A2/3 u.4	0	293608	0	0	214451	0
	A2/G,1 u.2	0	272070	0	0	198720	0
C	A3/7 u.8	0	0	0	0	0	0
	A3/5 u.6	0	260748	0	0	190554	0
	A3/3 u.4	0	241733	0	0	178617	0
	A3/G,1,2, A4/2	0	228018	0	0	171219	0
D	A4/G u.1, A5	0	213252	0	0	160174	0
	A6, A7	0	202513	0	0	152432	0

I.3.B1.2 Yearly rates of pay of central government personnel in 1996 Married official with two children

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	A1/8 u.9	0	1082622	0	0	755995	0
	A1/8 u.7	0	833203	0	0	589991	0
	A1/4 u.5	0	687770	0	0	488211	0
	A1/2 u.3	0	495140	0	0	331248	0
	A1/G u.1	0	484142	0	0	359766	0
B	A2/7 u.8	0	416348	0	0	303976	0
	A2/5 u.6	0	359030	0	0	262128	0
	A2/3 u.4	0	338320	0	0	247041	0
	A2/G,1 u.2	0	286018	0	0	208036	0
C	A3/7 u.8	0	346329	0	0	253028	0
	A3/5 u.6	0	283802	0	0	207403	0
	A3/3 u.4	0	251286	0	0	186213	0
	A3/G,1,2, A4/2	0	243715	0	0	182518	0
D	A4/G u.1, A5	0	226134	0	0	170346	0
	A6, A7	0	199747	0	0	150629	0

**I.3.B2.1 Yearly rates of pay of central government personnel in 1995
Unmarried official**

Cat. [1]	Grade [2]	Gross			Net		
		Min. [3]	Avg. [4]	Max. [5]	Min. [6]	Avg. [7]	Max. [8]
A	A1/8 u.9	0	946796	0	0	623560	0
	A1/6 u.7	0	592644	0	0	440513	0
	A1/4 u.5	0	466928	0	0	312188	0
	A1/2 u.3	0	316307	0	0	230968	0
	A1/G u.1	0	369594	0	0	269804	0
B	A2/7 u.8	0	332564	0	0	242871	0
	A2/5 u.6	0	272898	0	0	199325	0
	A2/3 u.4	0	276514	0	0	201966	0
	A2/G,1 u.2	0	234186	0	0	171049	0
C	A3/7 u.8	0	0	0	0	0	0
	A3/5 u.6	0	236312	0	0	172697	0
	A3/3 u.4	0	233201	0	0	172312	0
	A3/G,1,2, A4/2	0	209521	0	0	157330	0
D	A4/G u.1, A5	0	188288	0	0	141423	0
	A6, A7	0	182166	0	0	137116	0

**I.3.B2.2 Yearly rates of pay of central government personnel in 1995
Married official with two children**

Cat. [1]	Grade [2]	Gross			Net		
		Min. [3]	Avg. [4]	Max. [5]	Min. [6]	Avg. [7]	Max. [8]
A	A1/8 u.9	0	1076622	0	0	751805	0
	A1/6 u.7	0	827203	0	0	585742	0
	A1/4 u.5	0	681770	0	0	483852	0
	A1/2 u.3	0	489140	0	0	327234	0
	A1/G u.1	0	478142	0	0	355307	0
B	A2/7 u.8	0	410348	0	0	299595	0
	A2/5 u.6	0	353030	0	0	257747	0
	A2/3 u.4	0	328256	0	0	239692	0
	A2/G,1 u.2	0	293072	0	0	214089	0
C	A3/7 u.8	0	309575	0	0	226175	0
	A3/5 u.6	0	259165	0	0	189397	0
	A3/3 u.4	0	254972	0	0	188960	0
	A3/G,1,2, A4/2	0	240176	0	0	179867	0
D	A4/G u.1, A5	0	222554	0	0	167650	0
	A6, A7	0	189553	0	0	142942	0

Austria

I.3.C. Changes in average remuneration by grade of official in central government Price index = 101.6

Cat. (1)	Grade (2)	Gross				Net			
		Salary		Index		Salary		Index	
		1996 (3)	1995 (4)	nomin. (5)	real (6)	1996 (7)	1995 (8)	nomin. (9)	real (10)
A	A1/8 u.9	1017709	1011709	100.6	99.0	691754	687683	100.6	99.0
	A1/6 u.7	715924	709924	100.8	99.3	517482	513128	100.8	99.3
	A1/4 u.5	580349	574349	101.0	99.5	402206	398020	101.1	99.5
	A1/2 u.3	408724	402724	101.5	99.9	283248	279101	101.5	99.9
	A1/G u.1	429868	423868	101.4	99.8	316975	312556	101.4	99.8
B	A2/7 u.8	377456	371456	101.6	100.0	275615	271233	101.6	100.0
	A2/5 u.6	318964	312964	101.9	100.3	232918	228536	101.9	100.3
	A2/3 u.4	315964	302385	104.5	102.8	230746	220829	104.5	102.8
	A2/G,1 u.2	279044	263629	105.8	104.2	203378	192569	105.6	103.9
C	A3/7 u.8	173165	154788	111.9	110.1	126514	113088	111.9	110.1
	A3/5 u.6	272275	247739	109.9	108.2	198979	181047	109.9	108.2
	A3/3 u.4	246510	244087	101.0	99.4	182415	180636	101.0	99.4
	A3/G,1,2, A4/2	235867	224849	104.9	103.2	176869	168599	104.9	103.3
D	A4/G u.1,A5	219693	205421	106.9	105.3	165260	154537	106.9	105.3
	A6,A7	201130	185860	108.2	106.5	151531	140029	108.2	106.5

I.3.D Total emoluments in central government in 1995 (in thousands)

Cat. (1)	Gross				Net			
	Sample		Population		Sample		Population	
	Value (2)	% (3)	Value (4)	% (5)	Value (6)	% (7)	Value (8)	% (9)
A	1548517	52.8	1548517	52.8	1082276	51.4	1082276	51.4
B	671096	22.9	671096	22.9	490085	23.3	490085	23.3
C	423285	14.4	423284	14.4	315821	15.0	315820	15.0
D	289468	9.9	289468	9.9	217845	10.3	217845	10.3
Total	2932367	100.0	2932365	100.0	2106028	100.0	2106026	100.0

I.3.E Changes in average remunerations by category of official in the central government Price index = 101.6

Cat. (1)	Gross				Net			
	1996 (2)	1995 (3)	Nominal Index (4)	Real Index (5)	1996 (6)	1995 (7)	Nominal Index (8)	Real Index (9)
A	513544	507544	101.2	99.6	358919	354728	101.2	99.6
B	316139	305739	103.4	101.8	230820	223274	103.4	101.8
C	239708	230046	104.2	102.6	178856	171642	104.2	102.6
D	214725	200186	107.3	105.6	161586	150654	107.3	105.6
Total	353059	343690	102.7	101.1	253687	246839	102.6	101.2

I.3.A1 Central government personnel in the sample broken down by category and by grade

Cat. (1)	Grade (2)	Staff 1988 (3)
A	Director-geral	85
	Director de serviços	418
	Chefe de divisão	590
	Assessor	512
	Tecnico superior principal	1195
	Tecnico superior 1a classe	2450
	Tecnico principal	417
	Tecnico superior 2a classe	1190
	Tecnico de 1a classe	2094
	Tecnico de 2a classe	1298
B	Tecnico adj. especialista	515
	Tecnico adjunto principal	640
	Tecnico auxiliar principal	1081
	Tecnico adjunto 1a classe	281
	Tecnico auxiliar 1a classe	1555
	Tecnico auxiliar 2a classe	1301
C	Chefe de Secção	595
	Primeiro oficial	1471
	Segundo oficial	1995
	Terceiro oficial	1798
D	Operario qualif. principal	145
	Operario semiquualificado	152
	Auxiliar administrativo	6799
	Servente	285

I.3.A2 Central government personnel, broken down by category

Cat. (1)	Sample		Population Central administration		Ratio Sample/Population %
	Numbers (2)	% (3)	Numbers (4)	% (5)	
A	10249	35.5	13486	33.1	76.0
B	5373	18.6	5985	14.7	89.8
C	5859	20.3	8979	22.0	65.3
D	7361	25.5	12334	30.2	59.7
Total	28842	100.0	40784	100.0	70.7

Portugal

I.3.B1.1 Monthly rates of pay of central government personnel in 1996 Unmarried official

Cat. [1]	Grade [2]	Min. [3]	Gross Avg. [4]	Max. [5]	Min. [6]	Net Avg. [7]	Max. [8]
A	Director-geral	674225	0	674225	421747	0	421747
	Director de serviços	541691	0	541691	349614	0	349614
	Chefe de divisão	475308	0	475308	311378	0	311378
	Assessor	376958	0	450108	254730	0	296862
	Tecnico superior principal	315941	0	401341	221553	0	268774
	Tecnico superior 1a classe	279425	0	337291	201901	0	233043
	Tecnico principal	242791	0	294591	181239	0	210063
	Tecnico superior 2a classe	242791	0	282458	181239	0	203533
	Tecnico de 1a classe	206275	0	258075	157953	0	190410
	Tecnico de 2a classe	172675	0	206275	136527	0	157953
B	Tecnico adj. especialista	175708	0	200091	138462	0	154010
	Tecnico adjunto principal	154358	0	187958	124847	0	146273
	Tecnico auxiliar principal	145258	0	175708	119044	0	138462
	Tecnico adjunto 1a classe	136158	0	169641	112796	0	134593
	Tecnico auxiliar 1a classe	133125	0	163575	110560	0	130724
	Tecnico auxiliar 2a classe	120875	0	148291	101530	0	120979
C	Chefe de Secção	194025	0	224475	150142	0	169556
	Primeiro oficial	145258	0	175708	119044	0	138462
	Segundo oficial	133125	0	163575	110560	0	130724
	Terceiro oficial	120875	0	148291	101530	0	120979
D	Operario qualif. principal	120875	0	148291	101530	0	120979
	Operario semiqualficado	84358	0	136158	74610	0	112796
	Auxiliar administrativo	78175	0	133125	70052	0	110560
	Servente	75725	0	114808	68384	0	97057

I.3.B1.2 Monthly rates of pay of central government personnel in 1996 Married official with two children

Cat. [1]	Grade [2]	Min. [3]	Gross Avg. [4]	Max. [5]	Min. [6]	Net Avg. [7]	Max. [8]
A	Director-geral	679625	0	679625	460801	0	460801
	Director de serviços	547091	0	547091	385519	0	385519
	Chefe de divisão	480708	0	480708	347811	0	347811
	Assessor	382358	0	455508	284902	0	333107
	Tecnico superior principal	321341	0	406741	246134	0	300870
	Tecnico superior 1a classe	284825	0	342691	223081	0	259529
	Tecnico principal	248191	0	299991	199954	0	232655
	Tecnico superior 2a classe	248191	0	287858	199954	0	224996
	Tecnico de 1a classe	211675	0	263475	174760	0	209602
	Tecnico de 2a classe	178075	0	211675	150119	0	174760
B	Tecnico adj. especialista	181108	0	205491	152344	0	170225
	Tecnico adjunto principal	159758	0	193358	136687	0	161327
	Tecnico auxiliar principal	150658	0	181108	130013	0	152344
	Tecnico adjunto 1a classe	141558	0	175041	123340	0	147895
	Tecnico auxiliar 1a classe	138525	0	168975	121115	0	143446
	Tecnico auxiliar 2a classe	126275	0	153691	112131	0	132238
C	Chefe de Secção	199425	0	229875	165776	0	188107
	Primeiro oficial	150658	0	181108	130013	0	152344
	Segundo oficial	138525	0	168975	121115	0	143446
	Terceiro oficial	126275	0	153691	112131	0	132238
D	Operario qualif. principal	126275	0	153691	112131	0	132238
	Operario semiqualficado	89758	0	141558	81437	0	123340
	Auxiliar administrativo	83575	0	138525	75956	0	121115
	Servente	81125	0	120208	73784	0	107682

**I.3.B2.1 Monthly rates of pay of central government personnel in 1995
Unmarried official**

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	Director-geral	646670	0	646670	404700	0	404700
	Director de serviços	519386	0	519386	335277	0	335277
	Chefe de divisão	455803	0	455803	298654	0	298654
	Assessor	361448	0	431525	244306	0	284670
	Tecnico superior principal	302876	0	384807	212284	0	257761
	Tecnico superior 1a classe	267781	0	323389	193396	0	223323
	Tecnico principal	232802	0	282483	173665	0	201308
	Tecnico superior 2a classe	232802	0	270744	173665	0	194991
	Tecnico de 1a classe	197706	0	247387	151286	0	182421
	Tecnico de 2a classe	165457	0	197706	130721	0	151286
B	Tecnico adj. especialista	168420	0	191779	132611	0	147506
	Tecnico adjunto principal	147908	0	180157	119530	0	140095
	Tecnico auxiliar principal	141655	0	170940	115543	0	134218
	Tecnico adjunto 1a classe	130361	0	162610	107939	0	128906
	Tecnico auxiliar 1a classe	127326	0	156541	105701	0	125036
	Tecnico auxiliar 2a classe	115589	0	141862	97049	0	115675
C	Chefe de Secção	185967	0	215253	143800	0	162475
	Primeiro oficial	141655	0	170940	115543	0	134218
	Segundo oficial	127326	0	156541	105701	0	125036
	Terceiro oficial	115589	0	141862	97049	0	115675
D	Operario qualif. principal	115776	0	142098	97187	0	115825
	Operario semiqualficado	80680	0	130312	71315	0	107903
	Auxiliar administrativo	74870	0	127512	67032	0	105839
	Servente	72441	0	109966	65405	0	82904

**I.3.B2.2 Monthly rates of pay of central government personnel in 1995
Married official with two children**

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	Director-geral	651830	0	651830	436837	0	436837
	Director de serviços	524546	0	524546	365603	0	365603
	Chefe de divisão	460963	0	460963	332773	0	332773
	Assessor	366608	0	436685	271158	0	316431
	Tecnico superior principal	308036	0	389967	234198	0	286411
	Tecnico superior 1a classe	272941	0	328549	212278	0	247010
	Tecnico principal	237962	0	287643	190431	0	221461
	Tecnico superior 2a classe	237962	0	275904	190431	0	214129
	Tecnico de 1a classe	202866	0	252547	166849	0	189541
	Tecnico de 2a classe	170617	0	202866	143329	0	166849
B	Tecnico adj. especialista	173580	0	196939	145490	0	162526
	Tecnico adjunto principal	153068	0	185317	130530	0	154050
	Tecnico auxiliar principal	146815	0	176100	125969	0	147328
	Tecnico adjunto 1a classe	135521	0	167770	117733	0	141253
	Tecnico auxiliar 1a classe	132486	0	161701	115519	0	136826
	Tecnico auxiliar 2a classe	120749	0	147022	106959	0	126121
C	Chefe de Secção	191127	0	220413	158287	0	179470
	Primeiro oficial	146815	0	176100	125969	0	147328
	Segundo oficial	132486	0	161701	115519	0	136826
	Terceiro oficial	120749	0	147022	106959	0	126121
D	Operario qualif. principal	120936	0	147258	107095	0	126293
	Operario semiqualficado	85840	0	135472	77868	0	117697
	Auxiliar administrativo	80030	0	132672	72718	0	115655
	Servente	77601	0	115126	70565	0	102858

Portugal

I.3.C. Changes in average remuneration by grade of official in central government Price index = 103.6

Cat. (1)	Grade (2)	Gross				Net			
		Salary		Index		Salary		Index	
		1996 (3)	1995 (4)	nomín. (5)	real (6)	1996 (7)	1995 (8)	nomín. (9)	real (10)
A	Director-geral	676925	649250	104.3	100.6	441274	420769	104.9	101.2
	Director de serviços	544391	521966	104.3	100.7	367567	350440	104.9	101.2
	Chefe de divisão	478008	458383	104.3	100.7	329595	315714	104.4	100.8
	Assessor	416233	399067	104.3	100.7	292400	279141	104.7	101.1
	Técnico superior principal	361341	346422	104.3	100.7	259358	247664	104.7	101.1
	Técnico superior 1a classe	311058	298165	104.3	100.7	229389	219002	104.7	101.1
	Técnico principal	271391	260223	104.3	100.7	205978	196716	104.7	101.1
	Técnico superior 2a classe	265325	254353	104.3	100.7	202431	193304	104.7	101.1
	Técnico de 1a classe	234875	225127	104.3	100.7	183181	175024	104.7	101.0
	Técnico de 2a classe	192175	184162	104.4	100.7	154840	148046	104.6	101.0
B	Técnico adj. especialista	190600	182680	104.3	100.7	153760	147033	104.6	100.9
	Técnico adjunto principal	173858	166613	104.3	100.7	142284	136051	104.6	100.9
	Técnico auxiliar principal	163183	158878	102.7	99.1	134966	130765	103.2	99.6
	Técnico adjunto 1a classe	155600	149066	104.4	100.8	129656	123958	104.6	101.0
	Técnico auxiliar 1a classe	151050	144514	104.5	100.9	126461	120771	104.7	101.1
	Técnico auxiliar 2a classe	137283	131306	104.6	100.9	116720	111451	104.7	101.1
C	Chefe de Secção	211950	203190	104.3	100.7	168395	161008	104.6	101.0
	Primeiro oficial	163183	158878	102.7	99.1	134966	130765	103.2	99.6
	Segundo oficial	151050	144514	104.5	100.9	126461	120771	104.7	101.1
	Terceiro oficial	137283	131306	104.6	100.9	116720	111451	104.7	101.1
D	Operário qualif. principal	137283	131517	104.4	100.8	116720	111600	104.6	101.0
	Operário semiqualeficado	112958	108076	104.5	100.9	98046	93696	104.6	101.0
	Auxiliar administrativo	108350	103771	104.4	100.8	94421	90311	104.6	100.9
	Servente	97967	93784	104.5	100.8	86727	82933	104.6	100.9

I.3.D Total emoluments in central government in 1995 (in thousands)

Cat. (1)	Gross				Net			
	Sample		Population		Sample		Population	
	Value (2)	% (3)	Value (4)	% (5)	Value (6)	% (7)	Value (8)	% (9)
A	3014263	55.1	3966275	52.9	2214680	51.7	2914154	49.4
B	809893	14.8	902141	12.0	671779	15.7	748296	12.7
C	878999	16.1	1347077	18.0	729480	17.0	1117938	19.0
D	765889	14.0	1283314	17.1	666426	15.6	1116654	18.9
Total	5469044	100.0	7498807	100.0	4282366	100.0	5897042	100.0

I.3.E Changes in average remunerations by category of official in the central government Price index = 103.6

Cat. (1)	Gross				Net			
	1996 (2)	1995 (3)	Nominal Index (4)	Real Index (5)	1996 (6)	1995 (7)	Nominal Index (8)	Real Index (9)
A	306791	294103	104.3	100.7	226227	216087	104.7	101.1
B	156903	150734	104.1	100.5	130482	125029	104.4	100.7
C	156056	150025	104.0	100.4	129865	124506	104.3	100.7
D	108641	104047	104.4	100.8	94658	90535	104.6	100.9
Total	191684	183866	104.3	100.6	151172	144592	104.6	100.9

I.3.A1 Central government personnel in the sample broken down by category and by grade

Cat. [1]	Grade [2]	Staff 1996 [3]
A	A28	153
	A27	191
	A26	241
	A25	277
	A24	323
	A23	254
	A22	185
B	A20	78
	A19	87
	A18	135
	A17	138
	A16	140
	A15	109
C	A15	80
	A14	210
	A13	241
	A12	131
D	A13	33
	A12	48
	A11	42
	A10	41
	A09	27
	A08	26

I.3.A2 Central government personnel, broken down by category

Cat. [1]	Sample		Population Central administration		Ratio
	Numbers [2]	% [3]	Numbers [4]	% [5]	Sample/Population % [6]
A	1824	50.9	1950	52.0	83.3
B	685	21.5	745	19.9	91.9
C	662	20.8	796	21.2	83.2
D	217	6.8	257	6.9	84.4
Total	3188	100.0	3748	100.0	85.1

**I.3.B1.1 Monthly rates of pay of central government personnel in 1996
Unmarried official**

Cat. (1)	Grade (2)	Min. (3)	Gross		Min. (6)	Net	
			Avg. (4)	Max. (5)		Avg. (7)	Max. (8)
A	A28	18391	0	23488	10279	0	12327
	A27	16759	0	21403	9623	0	11489
	A26	15255	0	19482	9019	0	10717
	A25	13990	0	17867	8471	0	10088
	A24	13011	0	16619	8013	0	9567
	A23	12189	0	15566	7621	0	9144
	A22	11581	0	14791	7331	0	8833
B	A20	9768	0	12474	6468	0	7757
	A19	9257	0	11823	6218	0	7446
	A18	8770	0	11200	5960	0	7149
	A17	8322	0	10626	5721	0	6875
	A16	7960	0	10166	5529	0	6655
	A15	7658	0	9780	5368	0	6474
C	A15	7658	0	9780	5368	0	6474
	A14	7431	0	9492	5246	0	6339
	A13	7232	0	9238	5138	0	6208
	A12	7076	0	9039	5052	0	6103
D	A13	7232	0	9238	5138	0	6208
	A12	7076	0	9039	5052	0	6103
	A11	6917	0	8833	4965	0	5994
	A10	6775	0	8652	4888	0	5897
	A09	6660	0	8507	4822	0	5820
	A08	6538	0	8350	4750	0	5736

**I.3.B1.2 Monthly rates of pay of central government personnel in 1996
Married official with two children**

Cat. (1)	Grade (2)	Min. (3)	Gross		Min. (6)	Net	
			Avg. (4)	Max. (5)		Avg. (7)	Max. (8)
A	A28	19681	0	24778	11569	0	13617
	A27	18049	0	22693	10913	0	12779
	A26	16545	0	20772	10309	0	12007
	A25	15280	0	19157	9761	0	11358
	A24	14301	0	17909	9303	0	10857
	A23	13479	0	16856	8911	0	10434
	A22	12871	0	16081	8621	0	10123
B	A20	11058	0	13764	7758	0	9047
	A19	10547	0	13113	7508	0	8736
	A18	10060	0	12490	7250	0	8439
	A17	9612	0	11916	7011	0	8165
	A16	9250	0	11456	6819	0	7945
	A15	8948	0	11070	6658	0	7764
C	A15	8948	0	11070	6658	0	7764
	A14	8721	0	10782	6536	0	7629
	A13	8522	0	10528	6428	0	7498
	A12	8366	0	10329	6342	0	7393
D	A13	8522	0	10528	6428	0	7498
	A12	8366	0	10329	6342	0	7393
	A11	8207	0	10123	6255	0	7284
	A10	8065	0	9942	6178	0	7187
	A09	7950	0	9797	6112	0	7110
	A08	7828	0	9640	6040	0	7026

**I.3.B2.1 Monthly rates of pay of central government personnel in 1995
Unmarried official**

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	A28	17886	0	22845	9892	0	11836
	A27	16300	0	20818	9270	0	11042
	A26	14836	0	18948	8697	0	10309
	A25	13605	0	17375	8167	0	9692
	A24	12655	0	16181	7724	0	9216
	A23	11855	0	15141	7351	0	8816
	A22	11265	0	14386	7075	0	8518
B	A20	9469	0	12094	6245	0	7470
	A19	8963	0	11445	5990	0	7159
	A18	8480	0	10830	5738	0	6872
	A17	8038	0	10265	5507	0	6607
	A16	7679	0	9807	5320	0	6396
	A15	7380	0	9425	5162	0	6221
	A15	7380	0	9425	5162	0	6221
C	A14	7154	0	9138	5040	0	6081
	A13	6959	0	8888	4934	0	5951
	A12	6803	0	8690	4850	0	5848
	A13	6959	0	8888	4934	0	5951
D	A12	6803	0	8690	4850	0	5848
	A11	6647	0	8489	4765	0	5743
	A10	6505	0	8306	4682	0	5647
	A09	6393	0	8165	4616	0	5574
	A08	6270	0	8008	4544	0	5492

**I.3.B2.2 Monthly rates of pay of central government personnel in 1995
Married official with two children**

Cat. (1)	Grade (2)	Gross			Net		
		Min. (3)	Avg. (4)	Max. (5)	Min. (6)	Avg. (7)	Max. (8)
A	A28	19176	0	24135	11182	0	13126
	A27	17590	0	22108	10580	0	12332
	A26	16126	0	20238	9987	0	11599
	A25	14895	0	18665	9457	0	10982
	A24	13945	0	17451	9014	0	10506
	A23	13145	0	16431	8641	0	10106
	A22	12555	0	15676	8365	0	9808
B	A20	10759	0	13384	7535	0	8760
	A19	10253	0	12735	7280	0	8449
	A18	9770	0	12120	7028	0	8162
	A17	9328	0	11555	6797	0	7897
	A16	8969	0	11097	6610	0	7686
	A15	8670	0	10715	6452	0	7511
	A15	8670	0	10715	6452	0	7511
C	A14	8444	0	10428	6330	0	7371
	A13	8249	0	10178	6224	0	7241
	A12	8093	0	9980	6140	0	7138
	A13	8249	0	10178	6224	0	7241
D	A12	8093	0	9980	6140	0	7138
	A11	7937	0	9779	6055	0	7033
	A10	7795	0	9596	5972	0	6937
	A09	7683	0	9455	5906	0	6864
	A08	7560	0	9298	5834	0	6782

I.3.C. Changes in average remuneration by grade of official in central government. Price index = 100.4

Cat. (1)	Grade (2)	Gross				Net			
		Salary		Index		Salary		Index	
		1996 (3)	1995 (4)	nomin. (5)	real (6)	1996 (7)	1995 (8)	nomin. (9)	real (10)
A	A28	21585	21011	102.7	102.3	11948	11509	103.8	103.4
	A27	19726	19204	102.7	102.3	11201	10801	103.7	103.3
	A26	18014	17537	102.7	102.3	10513	10148	103.6	103.2
	A25	16574	16135	102.7	102.3	9915	9575	103.6	103.1
	A24	15460	15053	102.7	102.3	9435	9115	103.5	103.1
	A23	14523	14143	102.7	102.3	9028	8728	103.4	103.0
	A22	13831	13471	102.7	102.3	8727	8442	103.4	103.0
B	A20	11766	11427	103.0	102.6	7758	7503	103.4	103.0
	A19	11185	10849	103.1	102.7	7477	7220	103.6	103.2
	A18	10630	10300	103.2	102.8	7200	6950	103.6	103.2
	A17	10119	9797	103.3	102.9	6943	6702	103.6	103.2
	A16	9708	9388	103.4	103.0	6737	6503	103.6	103.2
	A15	9364	9048	103.5	103.1	6566	6337	103.6	103.2
C	A15	9364	9048	103.5	103.1	6566	6337	103.6	103.2
	A14	9107	8791	103.6	103.2	6438	6206	103.7	103.3
	A13	8880	8569	103.6	103.2	6318	6088	103.8	103.4
	A12	8703	8392	103.7	103.3	6223	5994	103.8	103.4
D	A13	8880	8569	103.6	103.2	6318	6088	103.8	103.4
	A12	8703	8392	103.7	103.3	6223	5994	103.8	103.4
	A11	8520	8213	103.7	103.3	6125	5899	103.8	103.4
	A10	8359	8051	103.8	103.4	6038	5810	103.9	103.5
	A09	8229	7924	103.8	103.4	5966	5740	103.9	103.5
	A08	8089	7784	103.9	103.5	5888	5663	104.0	103.6

I.3.D Total emoluments in central government in 1995 (in thousands)

Cat. (1)	Gross				Net			
	Sample		Population		Sample		Population	
	Value (2)	% (3)	Value (4)	% (5)	Value (6)	% (7)	Value (8)	% (9)
A	26525	64.9	31849	65.9	15645	61.0	18785	62.1
B	6855	16.8	7455	15.4	4663	18.2	5070	16.8
C	5734	14.0	6894	14.3	4062	15.8	4884	16.1
D	1777	4.3	2104	4.4	1277	5.0	1512	5.0
Total	40891	100.0	48302	100.0	25646	100.0	30251	100.0

I.3.E Changes in average remunerations by category of official in the central government. Price index = 100.4

Cat. (1)	Gross				Net			
	1996 (2)	1995 (3)	Nominal Index (4)	Real Index (5)	1996 (6)	1995 (7)	Nominal Index (8)	Real Index (9)
A	16775	16333	102.7	102.3	9977	9633	103.6	103.2
B	10334	10008	103.3	102.8	7050	6807	103.6	103.2
C	8975	8662	103.6	103.2	6367	6137	103.8	103.3
D	8497	8188	103.8	103.4	6111	5884	103.9	103.5
Total	13271	12888	103.0	102.6	8363	8072	103.6	103.2

I.3.A1 Central government personnel in the sample broken down by category and by grade

Cat. (1)	Grade (2)	Staff 1996 (3)
A	A	15496
B	B	3132
C	C	5714
D	D	2099

I.3.A2 Central government personnel, broken down by category

Cat. (1)	Sample		Population Central administration		Ratio Sample/Population %
	Numbers (2)	% (3)	Numbers (4)	% (5)	
A	15496	58.6	15496	58.6	100.0
B	3132	11.8	3132	11.8	100.0
C	5714	21.6	5714	21.6	100.0
D	2099	7.9	2099	7.9	100.0
Total	26441	100.0	26441	100.0	100.0

Sweden

I.3.B1.1 Monthly rates of pay of central government personnel in 1996 Unmarried official

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	A	0	21809	0	0	13744	0
B	B	0	16601	0	0	11012	0
C	C	0	15580	0	0	10384	0
D	D	0	15279	0	0	10203	0

I.3.B1.2 Monthly rates of pay of central government personnel in 1996 Married official with two children

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	A	0	21809	0	0	13744	0
B	B	0	16601	0	0	11012	0
C	C	0	15580	0	0	10384	0
D	D	0	15279	0	0	10203	0

I.3.B2.1 Monthly rates of pay of central government personnel in 1995 Unmarried official

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	A	0	20951	0	0	13414	0
B	B	0	15944	0	0	10743	0
C	C	0	14815	0	0	10036	0
D	D	0	14477	0	0	9825	0

I.3.B2.2 Monthly rates of pay of central government personnel in 1995 Married official with two children

Cat. (1)	Grade (2)	Min. (3)	Gross Avg. (4)	Max. (5)	Min. (6)	Net Avg. (7)	Max. (8)
A	A	0	20951	0	0	13414	0
B	B	0	15944	0	0	10743	0
C	C	0	14815	0	0	10036	0
D	D	0	14477	0	0	9825	0

I.3.C. Changes in average remuneration by grade of official in central government
Price index = 100.8

Cat. (1)	Grade (2)	Gross				Net			
		Salary		Index		Salary		Index	
		1996 (3)	1995 (4)	nomin. (5)	real (6)	1996 (7)	1995 (8)	nomin. (9)	real (10)
A	A	21809	20951	104.1	103.3	13744	13414	102.5	101.6
B	B	16601	15944	104.1	103.3	11012	10743	102.5	101.7
C	C	15580	14815	105.2	104.3	10384	10036	103.5	102.6
D	D	15279	14477	105.5	104.7	10203	9825	103.8	103.0

I.3.D Total emoluments in central government in 1995 (in thousands)

Cat. (1)	Gross				Net			
	Sample		Population		Sample		Population	
	Value (2)	% (3)	Value (4)	% (5)	Value (6)	% (7)	Value (8)	% (9)
A	324657	66.3	324656	66.3	207863	65.1	207863	65.1
B	49937	10.2	49936	10.2	33647	10.5	33647	10.5
C	84653	17.3	84652	17.3	57346	17.9	57345	17.9
D	30387	6.2	30387	6.2	20623	6.5	20622	6.5
Total	489633	100.0	489631	100.0	319479	100.0	319477	100.0

I.3.E Changes in average remunerations by category of official in the central government
Price index = 100.8

Cat. (1)	Gross				Net			
	1996 (2)	1995 (3)	Nominal Index (4)	Real Index (5)	1996 (6)	1995 (7)	Nominal Index (8)	Real Index (9)
A	21809	20951	104.1	103.3	13744	13414	102.5	101.6
B	16601	15944	104.1	103.3	11012	10743	102.5	101.7
C	15580	14815	105.2	104.3	10384	10036	103.5	102.6
D	15279	14477	105.5	104.7	10203	9825	103.8	103.0
Total	19328	18518	104.4	103.5	12413	12063	102.7	101.8

United Kingdom

I.3.A1 Central government personnel broken down by category

Cat. (1)	Grade (2)	Staff 1996 (3)
A	A	24775
B	B	367053
C	C	77951
D	D	36458

I.3.A2 Central government personnel in the sample

(a) Total UK civil servants	506237	
(b) Total Employees of selected departments	149898	29.6% of (a)

I.3.B1 Changes in remunerations by category of officials in the selected central government departments. Price index = 102.1. Unmarried Officials. *Department I.*

Cat. (1)	Gross				Net			
	1996 (2)	1995 (3)	Nominal Index (4)	Real Index (5)	1996 (6)	1995 (7)	Nominal Index (8)	Real Index (9)
A	31962	27890	114.6	112.2	22888	19956	114.7	112.3
B	16808	16167	104.0	101.8	12460	11846	105.2	103.0
C	11352	10901	104.1	102.0	8824	8387	105.2	103.0
D	11352	10901	104.1	102.0	8824	8387	105.2	103.0

I.3.B2 Changes in remunerations by category of officials in the selected central government departments. Price index = 102.1. Unmarried Officials. *Department II.*

Cat. (1)	Gross				Net			
	1996 (2)	1995 (3)	Nominal Index (4)	Real Index (5)	1996 (6)	1995 (7)	Nominal Index (8)	Real Index (9)
A	32980	31835	103.6	101.5	23490	22340	105.2	103.0
B	16891	16237	104.0	101.9	12516	11892	105.3	103.1
C	11200	10782	103.9	101.7	8722	8310	105.0	102.8
D	11200	10782	103.9	101.7	8722	8310	105.0	102.8

I.3.B3 Changes in remunerations by category of officials in the selected central government departments. Price index = 102.1. Unmarried Officials. *Department III.*

Cat.	Gross				Net			
	1996	1995	Nominal Index	Real Index	1996	1995	Nominal Index	Real Index
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A	37176	36270	102.5	100.4	25970	24962	104.0	101.9
B	19024	18525	102.7	100.6	13938	13394	104.1	101.9
C	11597	11282	102.8	100.7	8987	8637	104.1	101.9
D	11597	11282	102.8	100.7	8987	8637	104.1	101.9

I.3.C1 Changes in remunerations by category of officials in the selected central government departments. Price index = 102.1. Married Officials with two children. *Department I.*

Cat.	Gross				Net			
	1996	1995	Nominal Index	Real Index	1996	1995	Nominal Index	Real Index
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A	31962	27890	114.6	112.2	23157	20214	114.6	112.2
B	16808	16167	104.0	101.8	12729	12104	105.2	103.0
C	11352	10901	104.1	102.0	9092	8645	105.2	103.0
D	11352	10901	104.1	102.0	9092	8645	105.2	103.0

I.3.C2 Changes in remunerations by category of officials in the selected central government departments. Price index = 102.1. Married Officials with two children. *Department II.*

Cat.	Gross				Net			
	1996	1995	Nominal Index	Real Index	1996	1995	Nominal Index	Real Index
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A	32980	31835	103.6	101.5	23758	22598	105.1	103.0
B	16891	16237	104.0	101.9	12785	12150	105.2	103.1
C	11200	10782	103.9	101.7	8991	8568	104.9	102.8
D	11200	10782	103.9	101.7	8991	8568	104.9	102.8

United Kingdom

I.3.C3 Changes in remunerations by category of officials in the selected central government departments. Price index = 102.1. Married Officials with two children. *Department III.*

Cat.	Gross				Net			
	1996	1995	Nominal Index	Real Index	1996	1995	Nominal Index	Real Index
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A	37176	36270	102.5	100.4	26238	25220	104.0	101.9
B	19024	18525	102.7	100.6	14206	13652	104.1	101.9
C	11597	11282	102.8	100.7	9256	8895	104.1	101.9
D	11597	11282	102.8	100.7	9256	8895	104.1	101.9

I.3.D Changes in average remunerations of senior A-grade officials in the central government. Price index = 102.1.

Senior Staff	Gross		Net	
	Nominal Index	Real Index	Nominal Index	Real Index
A	103.9	101.8	104.9	102.7

I.3.E Changes in average remunerations by category of officials in the central government. Price index = 102.1.

Cat.	Gross		Net	
	Nominal Index	Real Index	Nominal Index	Real Index
(1)	(4)	(5)	(8)	(9)
A	104.5	102.4	105.7	103.6
B	103.6	101.5	104.9	102.7
C	103.7	101.5	104.8	102.6
D	103.7	101.5	104.8	102.6
Total	103.7	101.6	104.9	102.8

**Trends in working hours in
central government in the
Member States**

Table III.2.A Statutory or contractual weekly working hours in central government in Member States

Country	Weekly working hours		REMARKS
	Jul-96	Jul-96	
B	38	38	
DK	37	37	
D	38.5	38.5	
GR	37.5	37.5	Differences for mothers
E	37.5	37.5	
F	39	39	
IRL	41	41	
I	36	36	
L	40	40	
NL	38	38	
A	40	40	
P	35	35	40 hours for manual and auxiliary staff
FIN	36.25	36.25	
S	40	40	
UK	41	41	42 hours elsewhere than in the London area

Table III.2.B Number of days annual leave

Country	Number of days		REMARKS
	Jul-96	Jul-96	
B	24 - 31	24 - 31	Difference depending on age
DK	25	25	
D	26 - 30	26 - 30	26 days till 30 years old; 29 days till 40 years old; 30 days after 40 years old
GR	20 - 26	20 - 26	If 5 days/week: 20 - 22 days depending on seniority If 6 days/week: 24 - 26 days depending on seniority
E	30	30	
F	25	25	
IRL	18 - 31	18 - 31	Difference depending on grade and, for certain grades, on lengths of service in grade
I	32	32	
L	25 - 28	25 - 28	25 days till 50 years old; 27 days till 55 years old; 28 days after 55 years old
NL	23 - 24	23 - 24	23 days before grade 9, 24 days if equal or higher than grade 9. Bonuses depending on age
A	25 - 30	25 - 30	Differences depending on age
P	22	22	
FIN	30-36	30-36	First year 24, week = 6days
S	30-38	30-38	
UK	from 4 weeks and 2 days to 6 weeks	from 4 weeks and 2 days to 6 weeks	Difference depending on grade and, for certain grades, on length of service in grade

Table III.2.C

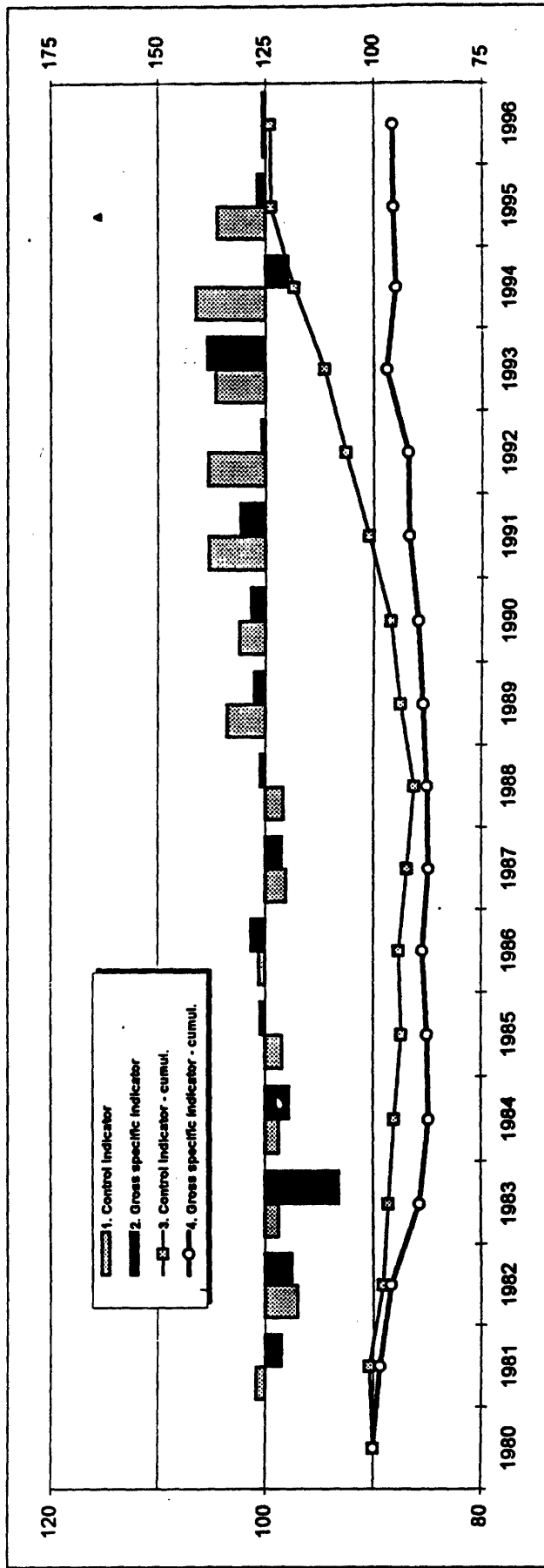
Number of public holidays per year (statutory, contractual, etc.)

Country	Number of days		REMARKS
	Jul-95	Jul-96	
B	13.5	13.5	Time off in lieu when the public holiday falls on Saturday or Sunday
DK	8	10	
D	11	10	
GR	12	12	
E	14	14	
F	10-11	10-11	Non-systematic time off in lieu when the public holiday falls on a Saturday or a Sunday (decided each year)
IRL	11	11	Time off in lieu when the public holiday falls on a Saturday or Sunday
I	10	10	
L	10	10	Time off in lieu when the public holiday falls on a Saturday or Sunday
NL	11	11	
A	13	13	
P	14	14	
FIN	7	8	
S	8	11	Only counted, if on a working day
UK	10.5	10.5	Time off in lieu when the public holiday falls on a Saturday and Sunday

**Real changes in the gross
specific indicator and the control
indicator in the period
1980 - 1996**

GRAPH IV.1.A Real changes in the gross specific indicator and the control indicator in the period 1980 - 1996 Belgium

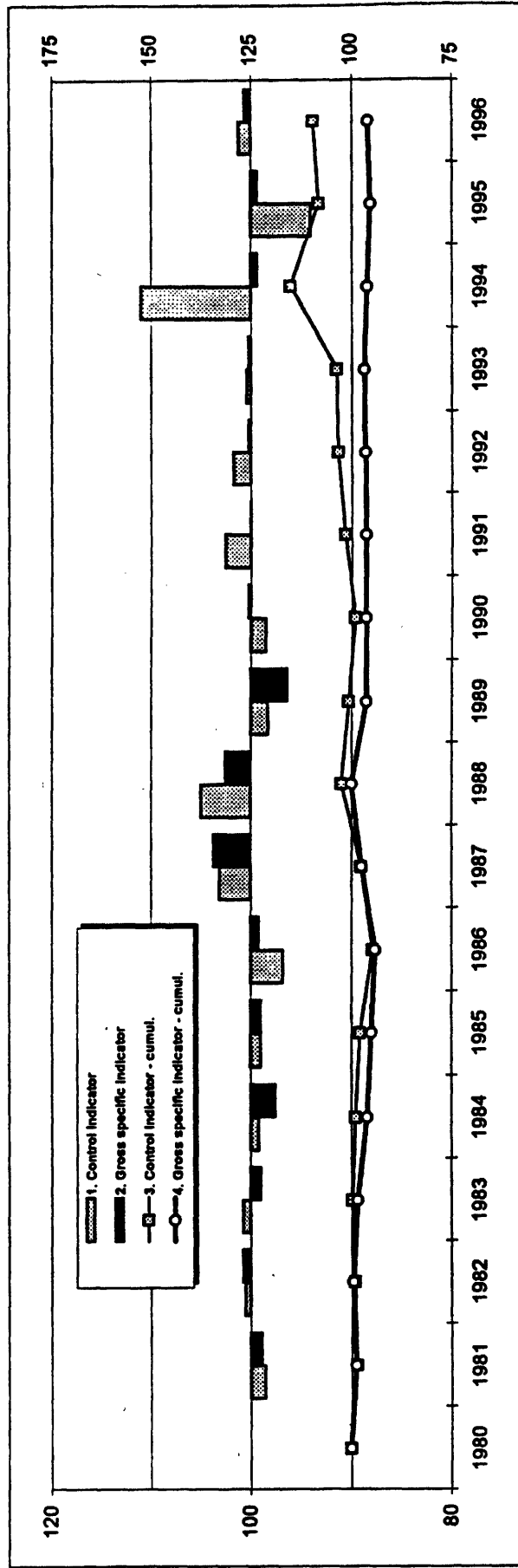
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1. Control indicator	100.0	100.8	96.9	98.7	98.6	98.4	100.6	98.0	98.2	103.5	102.4	105.3	104.6	106.4	106.4	104.4	100.2
2. Gross specific indicator	100.0	98.4	97.4	93.1	97.7	100.4	101.3	98.4	100.4	101.0	101.3	102.3	100.3	105.4	97.8	100.7	100.2
Difference		2.4	-0.5	5.6	0.9	-2.0	-0.7	-0.4	-2.2	2.5	1.1	3.0	5.0	-0.8	8.6	3.7	0.0
3. Control indicator - cumul.	100.0	100.8	97.7	96.4	95.0	93.5	94.0	92.2	90.5	93.7	95.9	101.0	106.3	111.2	118.3	123.6	123.8
4. Gross specific indicator - cumul.	100.0	98.4	95.8	89.2	87.2	87.5	88.7	87.2	87.6	88.5	89.6	91.7	92.0	96.9	94.8	95.5	95.6
Difference		2.4	1.8	7.1	7.9	6.0	5.4	4.9	2.9	5.3	6.3	9.3	14.4	14.3	23.6	28.1	28.2



A

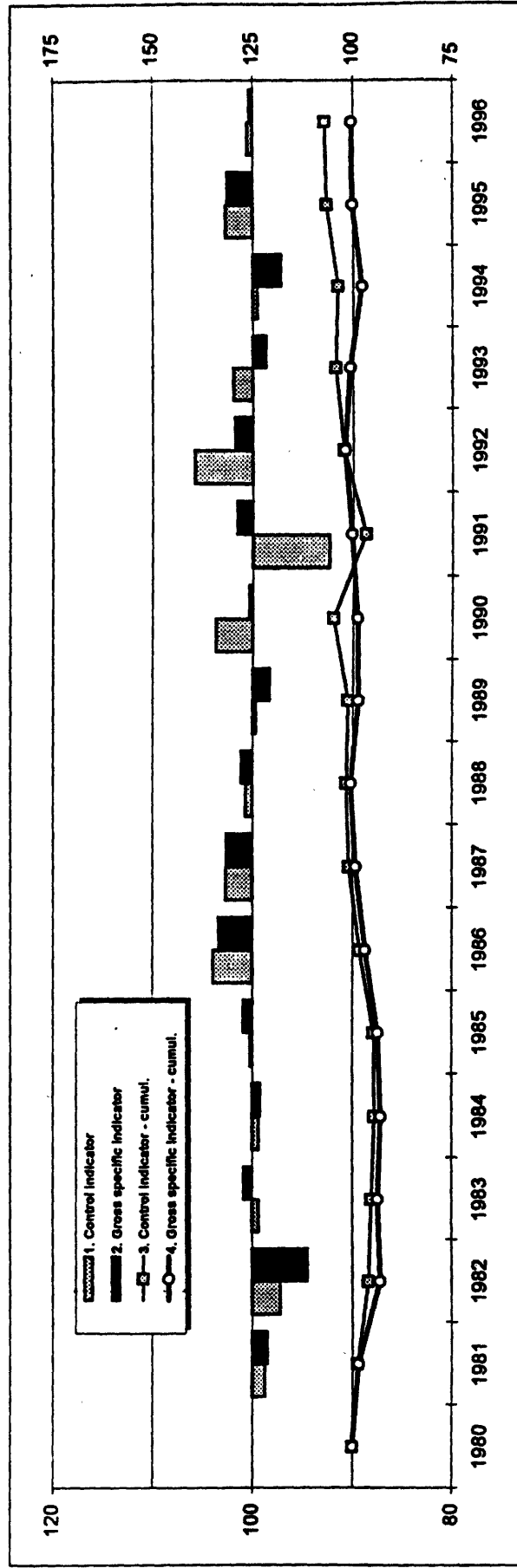
GRAPH IV.1.B Real changes in the gross specific indicator and the control indicator in the period 1980 - 1996 Denmark

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1. Control indicator	96.5	100.5	100.7	100.7	99.1	98.9	96.8	103.1	105.0	98.2	98.4	102.5	101.7	100.4	111.0	94.0	101.2
2. Gross specific indicator	98.8	100.7	98.9	98.9	97.5	98.9	99.1	103.7	102.5	96.3	100.2	99.9	100.2	100.2	99.3	99.3	100.6
Difference	-0.3	-0.2	1.8	1.6	1.6	0.0	-2.3	-0.6	2.5	1.9	-1.8	2.6	1.5	0.2	11.7	-5.3	0.6
3. Control indicator - cumul.	100.0	98.5	99.0	99.7	98.8	97.8	94.6	97.6	102.4	100.6	99.0	101.5	103.3	103.7	115.1	108.2	109.5
4. Gross specific indicator - cumul.	100.0	98.8	99.5	98.4	95.9	94.9	94.0	97.5	99.9	96.2	96.4	96.3	96.5	96.7	96.1	95.4	96.0
Difference	-0.3	-0.5	1.3	2.9	2.9	0.6	0.1	2.5	4.4	2.6	5.2	6.7	6.7	7.0	19.1	12.8	13.6



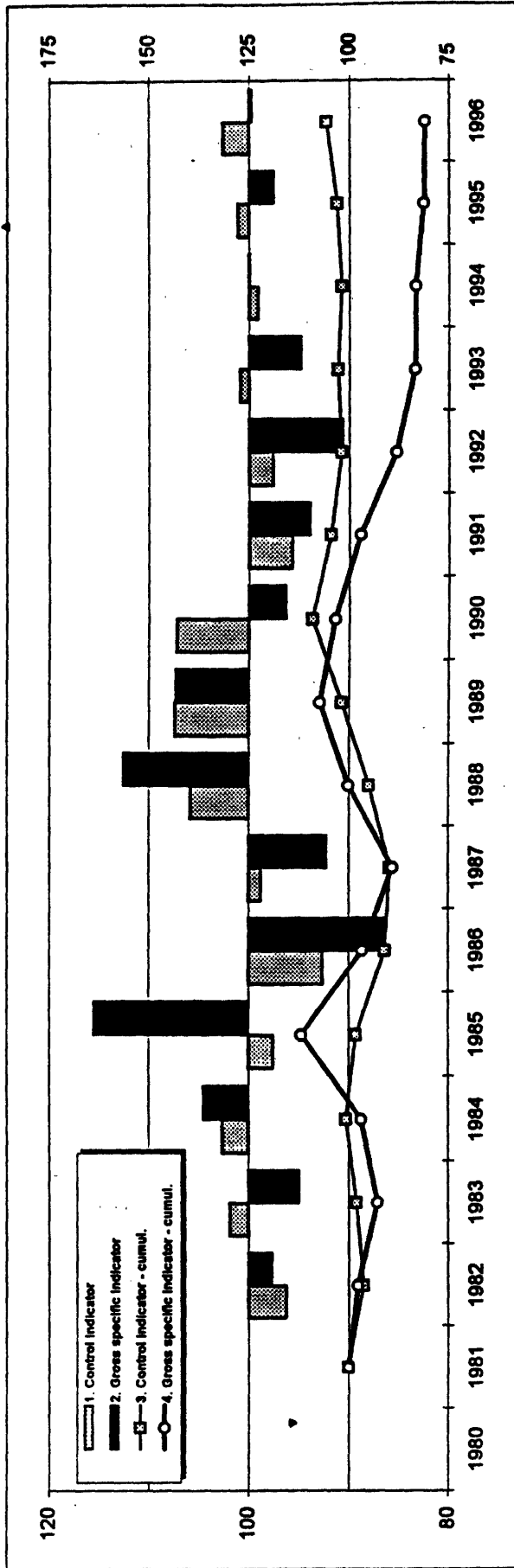
GRAPH IV.1.C Real changes in the gross specific indicator and the control indicator in the period 1980 - 1996 Germany

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1. Control indicator																	
2. Gross specific indicator		98.7	97.1	99.3	99.3	100.2	103.9	102.6	100.7	99.6	103.6	92.3	105.8	101.9	99.4	102.7	100.5
Difference		0.3	2.7	-1.5	0.2	-0.7	0.6	0.0	-0.4	1.4	3.3	-9.2	4.1	3.3	2.3	0.2	0.2
3. Control indicator - cumul.	100.0	98.7	95.8	95.1	94.4	94.6	98.3	100.9	101.5	101.1	104.8	96.7	102.3	104.2	103.6	106.4	107.0
4. Gross specific indicator - cumul.	100.0	98.4	92.9	93.6	92.8	93.6	96.7	99.2	100.3	98.5	98.8	100.3	102.0	100.6	97.7	100.1	100.4
Difference		0.3	2.9	1.5	1.6	1.0	1.6	1.6	1.2	2.6	6.0	-3.6	0.3	3.6	6.0	6.3	6.6



GRAPH IV.1.D Real changes in the gross specific indicator and the control indicator in the period 1980 - 1996 Greece

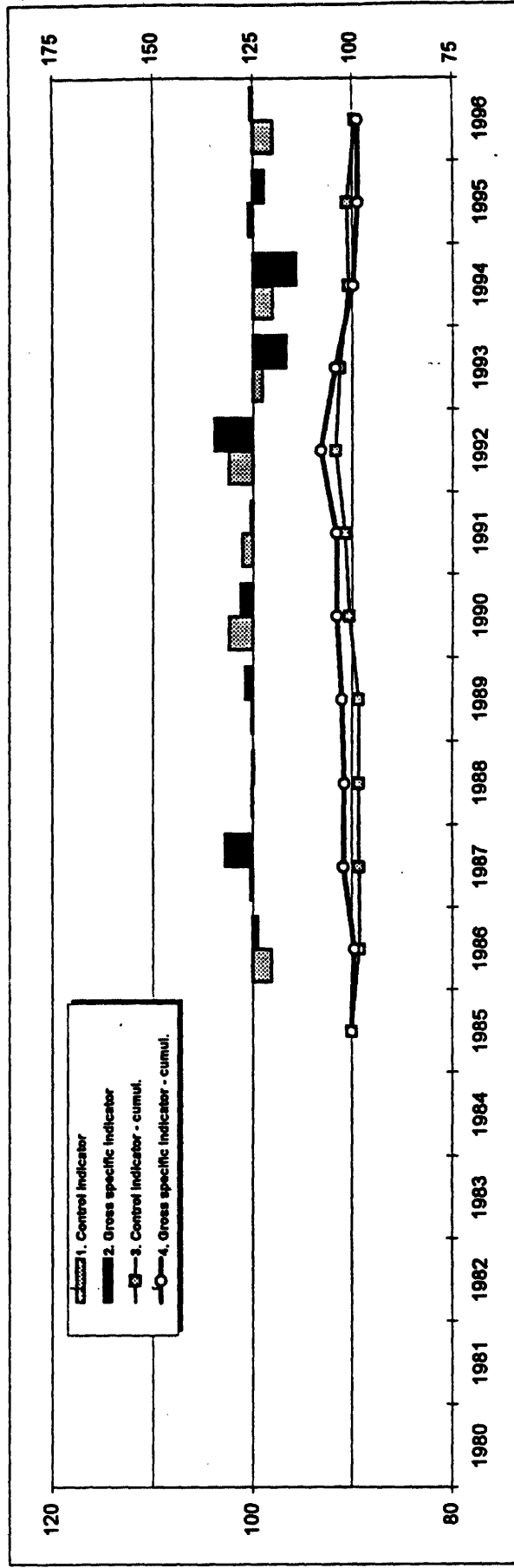
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1. Control indicator		96.2	101.9	102.7	97.5	92.5	98.7	105.9	107.4	107.2	95.6	97.6	100.9	99.1	101.1	102.6	
2. Gross specific indicator		97.6	94.9	104.5	115.5	86.3	92.2	112.5	107.3	98.3	93.9	90.6	94.8	99.9	97.5	99.7	
Difference		-1.4	7.0	-1.8	-18.0	6.2	6.5	-6.6	0.1	10.9	1.7	7.0	6.1	-0.8	3.6	2.9	
3. Control indicator - cumul.	100.0	98.2	98.0	100.6	98.1	90.8	89.6	94.9	101.9	104.5	101.9	102.8	101.9	103.0	105.7		
4. Gross specific indicator - cumul.	100.0	97.6	92.6	96.8	111.8	96.5	89.0	100.1	107.4	103.4	97.1	88.0	83.4	83.3	81.2	81.0	
Difference		-1.4	5.4	3.8	-13.7	-5.7	0.7	-5.2	-5.5	5.8	7.4	13.9	19.5	18.6	21.8	24.7	



GRAPH IV.1.E Real changes in the gross specific indicator and the control indicator in the period 1980 - 1996

Spain

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	
1. Control indicator																		
2. Gross specific indicator							98.0	100.2	100.0	100.1	102.4	101.0	102.4	99.0	98.0	100.4	97.9	
Difference							-1.4	-2.5	0.2	-0.6	1.2	0.8	-1.4	2.4	2.4	1.8	-2.3	
3. Control indicator - cumul.							100.0	98.0	98.2	98.2	98.3	100.6	101.7	104.1	103.1	101.0	101.4	99.2
4. Gross specific indicator - cumul.							100.0	99.4	102.1	101.9	102.6	103.8	104.0	108.0	104.3	99.7	98.5	98.7
Difference							-1.4	-3.9	-3.7	-4.3	-3.2	-2.3	-3.8	-1.2	1.3	2.8	0.5	

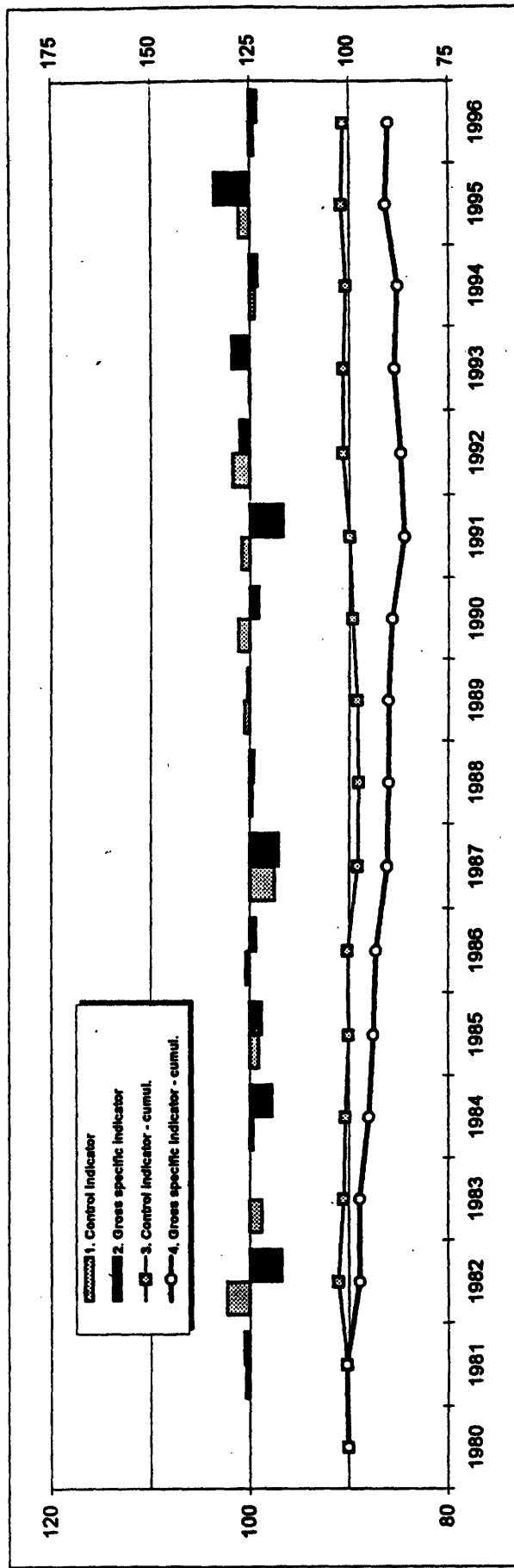


A

GRAPH IV.1.F Real changes in the gross specific indicator and the control indicator in the period 1980 - 1996

France

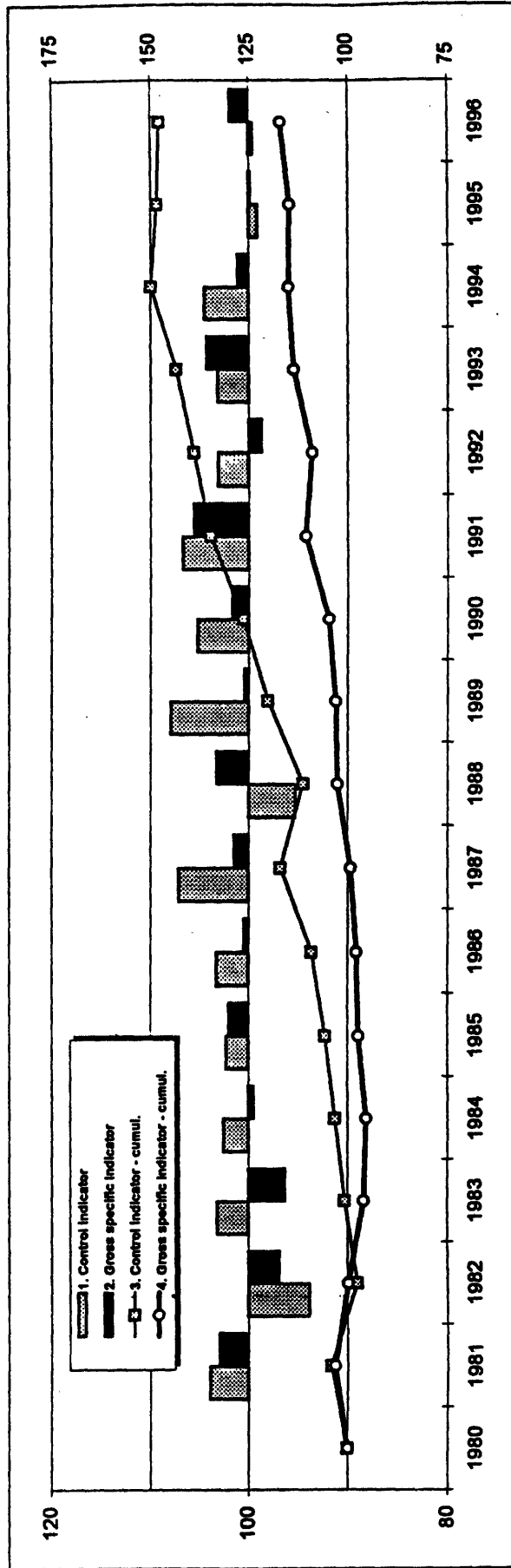
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1. Control indicator	100.4	102.3	98.7	98.7	99.6	99.0	100.4	97.4	99.7	100.5	101.1	100.8	101.7	99.9	99.4	101.1	99.5
2. Gross specific indicator	100.5	96.7	100.0	97.7	96.7	98.7	99.3	97.0	98.5	100.2	99.0	96.6	101.0	101.8	99.1	103.6	99.1
Difference	-0.1	5.6	-1.3	1.9	0.3	1.1	0.4	0.2	0.3	2.1	4.2	0.7	-1.9	0.3	-2.5	0.4	
3. Control indicator - cumulat.	100.0	100.4	102.6	101.3	100.9	99.9	100.3	97.7	97.4	97.9	99.0	99.8	101.5	101.4	100.8	101.9	101.4
4. Gross specific indicator - cumulat.	100.0	100.5	97.2	97.2	94.9	93.7	93.1	90.3	89.8	90.0	89.1	86.1	86.9	88.5	87.7	90.9	90.0
Difference	-0.1	5.4	4.1	4.1	5.9	6.2	7.2	7.4	7.6	7.9	9.9	13.7	14.6	12.9	13.1	11.1	11.4



GRAPH IV.1.G Real changes in the gross specific indicator and the control indicator in the period 1980 - 1996

Ireland

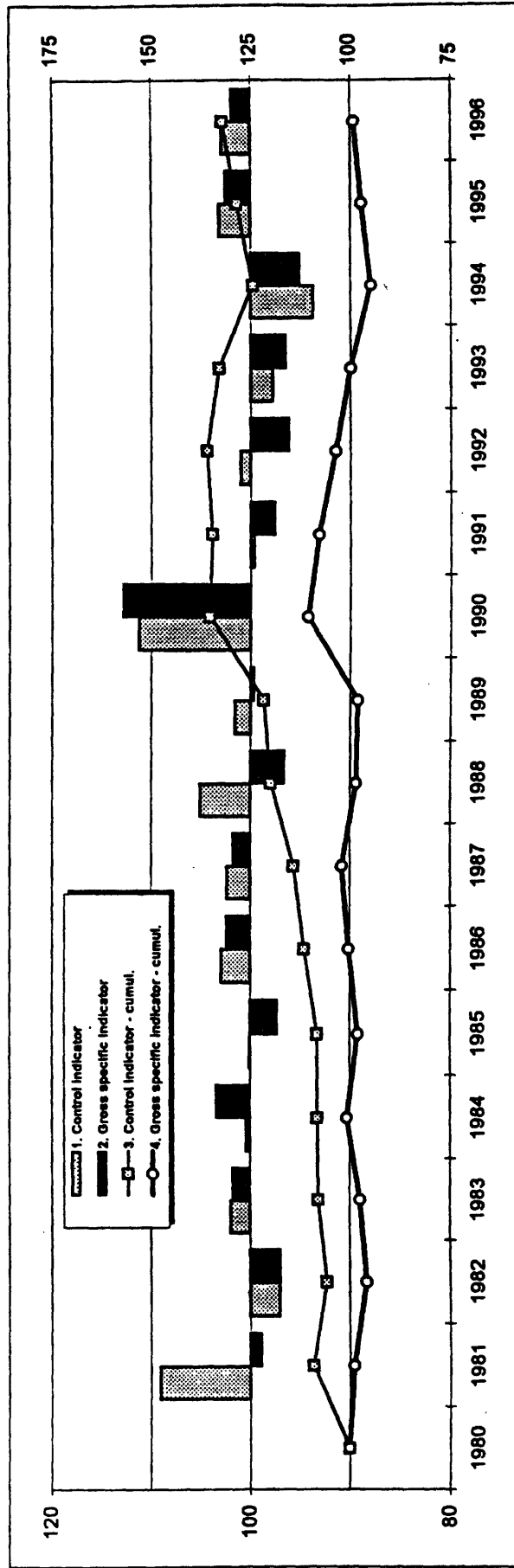
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1. Control Indicator	104.0	93.8	103.2	102.6	102.3	103.3	107.2	95.2	107.9	105.2	106.7	103.1	103.2	104.5	99.0	99.5	
2. Gross specific Indicator	103.0	96.8	96.2	99.4	102.0	100.5	101.5	103.3	100.4	101.7	105.6	98.6	104.3	101.1	99.8	101.9	
Difference	1.0	-3.0	7.0	3.2	0.3	2.8	5.7	-8.1	7.5	3.5	1.1	4.5	-1.1	3.4	-0.8	-2.4	
3. Control Indicator - cumul.	100.0	104.0	97.5	100.6	103.2	105.6	109.0	116.8	111.2	120.0	126.3	134.8	139.0	143.4	149.9	148.4	147.7
4. Gross specific Indicator - cumul.	100.0	103.0	99.7	95.9	95.3	97.2	97.7	99.2	102.5	102.9	104.6	110.5	108.9	113.6	114.9	114.6	116.8
Difference	1.0	-2.2	4.7	7.9	8.3	11.3	17.7	8.8	17.2	21.7	24.3	24.3	30.1	29.8	35.0	33.8	30.9



GRAPH IV.1.H Real changes in the gross specific indicator and the control indicator in the period 1980 - 1996

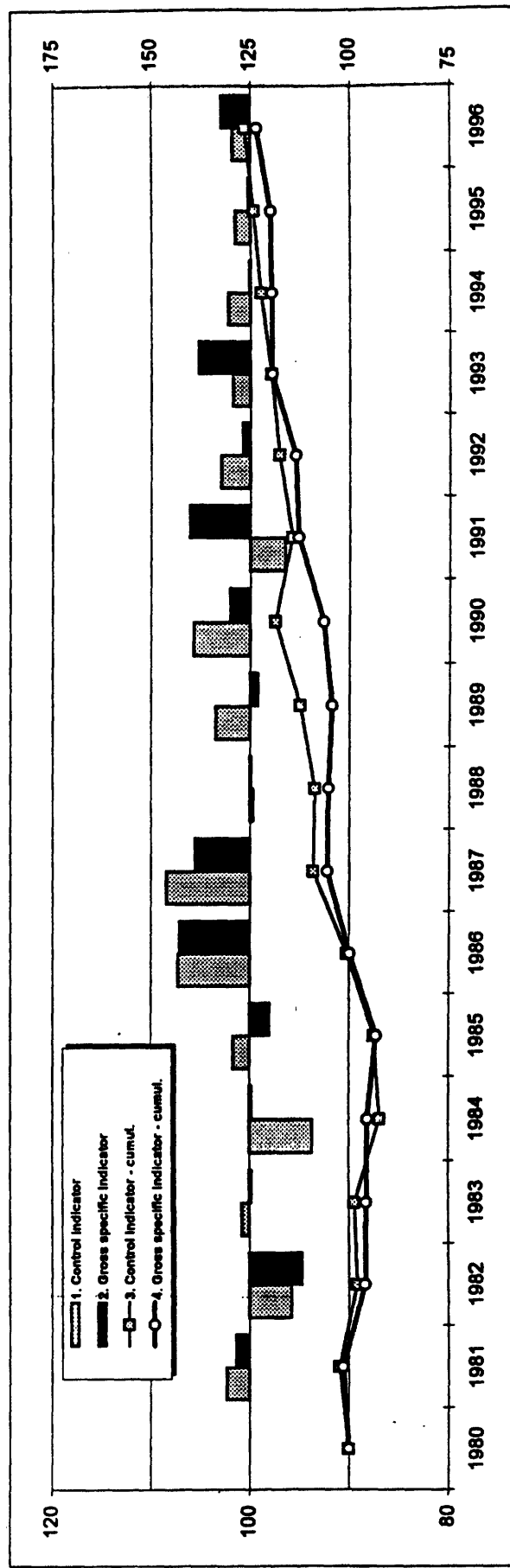
Italy

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1. Control indicator	109.0	109.0	97.0	101.9	100.3	100.0	103.0	102.4	105.1	101.6	111.2	99.5	101.0	97.7	93.7	103.2	102.9
2. Gross specific indicator	98.8	96.9	96.9	101.7	103.4	97.2	102.4	101.7	96.5	99.6	112.8	97.5	96.1	96.4	95.0	102.5	101.9
Difference	10.2	12.1	0.1	0.2	-3.1	2.8	0.6	0.7	8.6	2.0	-1.6	2.0	4.9	1.3	-1.3	0.7	1.0
3. Control indicator - cumul.	100.0	109.0	105.7	107.8	108.1	108.1	111.3	114.0	119.8	121.7	135.3	134.7	136.0	132.9	124.4	128.4	132.1
4. Gross specific indicator - cumul.	100.0	98.8	95.7	97.4	100.7	97.9	100.2	101.9	98.3	97.9	110.5	107.7	103.5	99.8	94.8	97.2	99.0
Difference	10.2	10.2	10.0	10.4	7.5	10.3	11.1	12.1	21.4	23.7	24.8	27.0	32.5	33.1	29.6	31.2	33.0



GRAPH IV.1.1 Real changes in the gross specific indicator and the control indicator in the period 1980 - 1996 Luxembourg

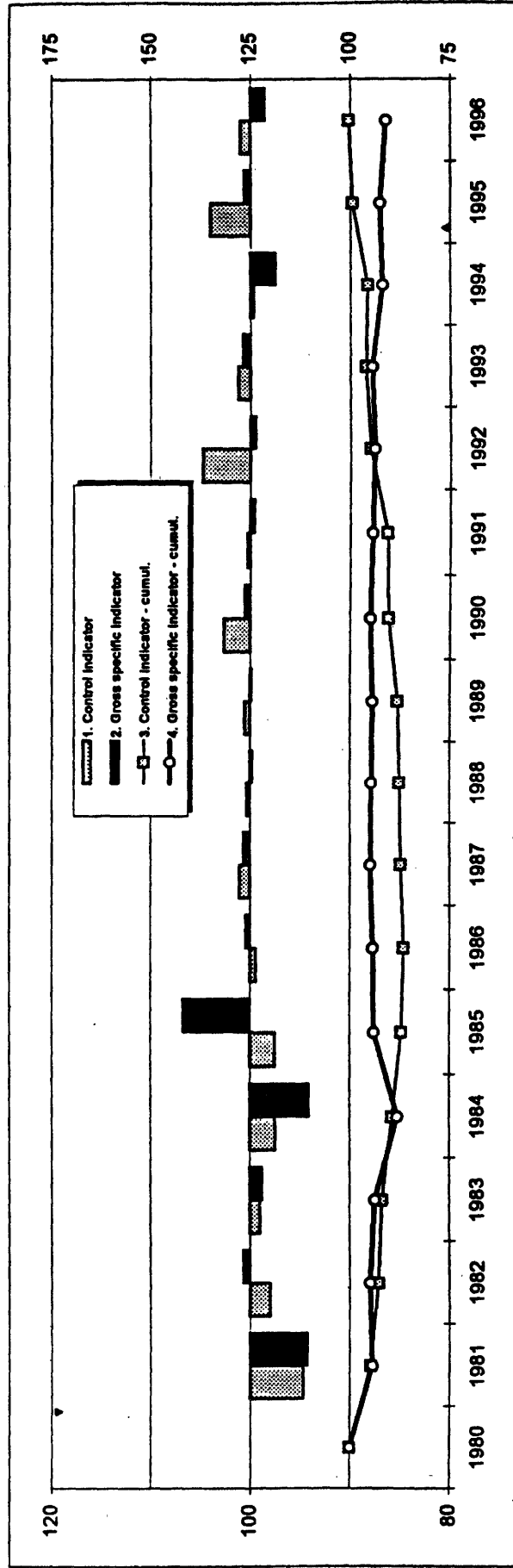
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1. Control indicator																	
102.3	95.7	100.7	93.6	101.6	107.2	108.4	99.6	103.4	105.7	96.4	102.9	101.7	102.2	101.5	101.8		
2. Gross specific indicator																	
101.3	94.6	99.7	99.7	97.9	107.1	105.5	99.8	99.1	102.0	106.1	100.7	105.2	100.1	100.2	102.9		
Difference	1.0	1.1	1.0	-6.1	3.7	0.1	2.9	-0.2	4.3	3.7	-9.7	2.2	-3.5	2.1	1.3	-1.1	
3. Control indicator - cumul.																	
100.0	102.3	97.8	98.5	92.2	93.7	100.5	109.0	108.5	112.3	118.6	114.3	117.7	119.7	122.3	124.1	126.4	
4. Gross specific indicator - cumul.																	
100.0	101.3	95.8	95.5	95.3	93.3	99.9	105.4	105.2	104.2	106.3	112.8	113.6	119.5	119.6	119.8	123.3	
Difference	1.0	2.0	3.0	3.0	-3.0	0.5	0.6	3.6	3.4	8.0	12.3	1.5	4.1	0.2	2.7	4.3	3.1



A

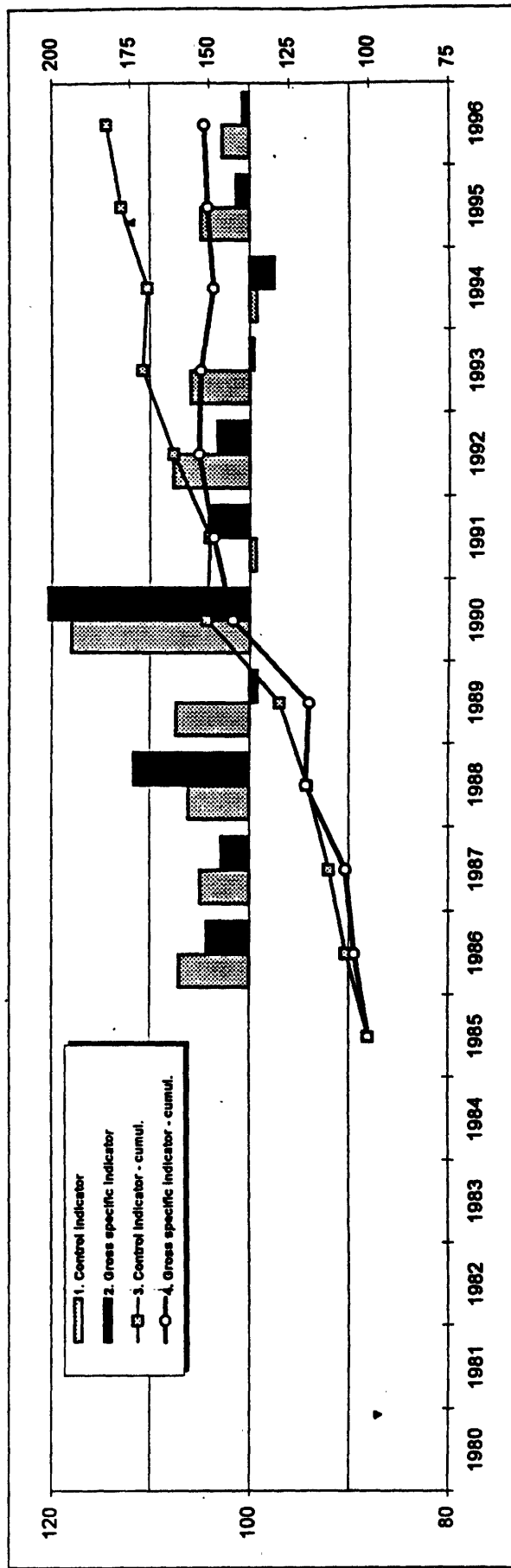
GRAPH IV.1.J Real changes in the gross specific indicator and the control indicator in the period 1980 - 1996 Netherlands

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1. Control indicator	94.6	97.9	98.9	97.3	97.4	99.3	101.1	100.3	100.5	102.6	100.2	104.8	101.2	99.6	104.0	101.0	
2. Gross specific indicator	94.2	100.6	98.7	94.0	106.7	100.4	100.6	99.7	99.8	100.5	99.5	99.4	100.7	97.4	100.6	98.5	
Difference	0.4	-2.7	0.2	3.3	-9.3	-1.1	0.5	0.6	0.7	2.1	0.7	5.4	0.5	2.2	3.4	2.5	
3. Control indicator - cumul.	100.0	94.6	92.7	91.7	89.2	86.9	86.4	87.3	87.5	88.0	90.3	90.5	94.8	96.0	95.6	99.4	100.4
4. Gross specific indicator - cumul.	100.0	94.2	94.8	93.5	87.9	93.8	94.2	94.8	94.5	94.3	94.8	94.3	93.7	94.4	91.9	92.5	91.1
Difference	0.4	-2.1	-1.9	1.3	-6.9	-7.8	-7.5	-6.9	-6.3	-4.4	-3.8	1.1	1.6	3.7	6.9	9.3	



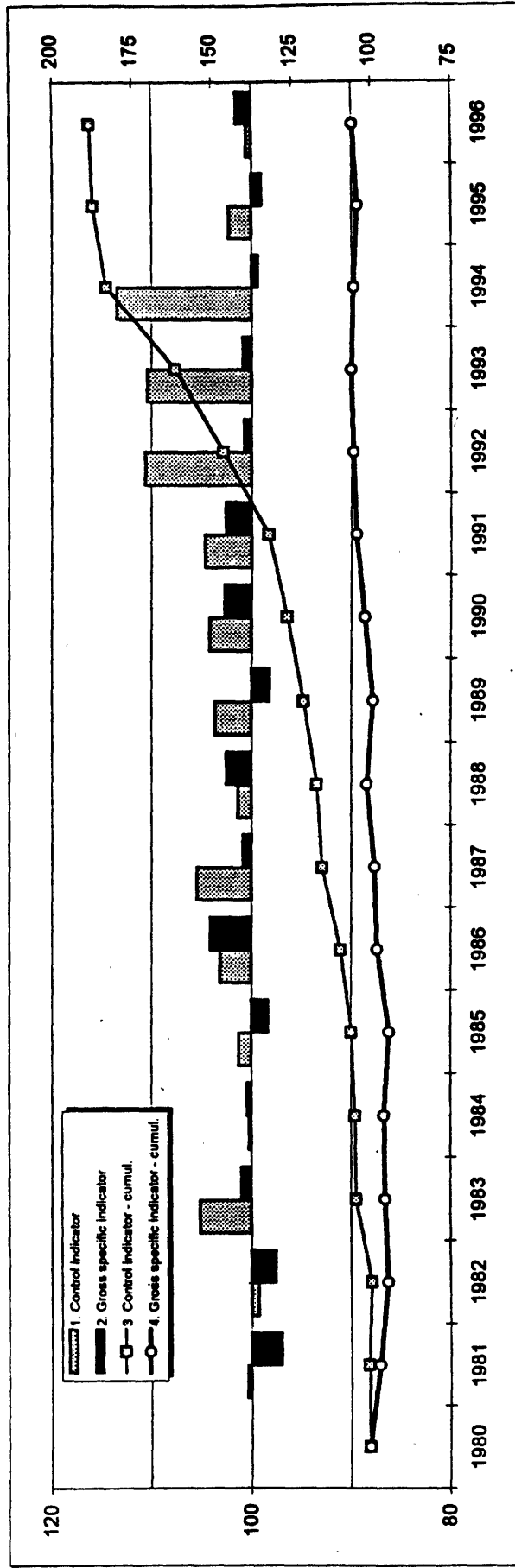
GRAPH IV.1.K Real changes in the gross specific indicator and the control indicator in the period 1980 - 1996 Portugal

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	
1. Control indicator																		
2. Gross specific indicator							107.0	104.9	106.1	107.4	118.0	99.3	107.7	105.9	99.2	104.9	102.7	
Difference							104.3	102.8	111.6	99.1	120.4	104.1	103.2	99.5	97.4	101.3	100.6	
							2.7	2.1	-5.5	8.3	-2.4	-4.8	4.5	6.4	1.8	3.6	2.1	
3. Control indicator - cumul.							100.0	107.0	112.3	119.1	127.9	150.9	149.8	161.3	170.9	169.4	177.7	182.5
4. Gross specific indicator - cumul.							100.0	104.3	107.2	119.7	118.6	142.8	148.6	153.4	152.6	148.6	150.6	151.5
Difference							2.7	5.1	-0.5	9.3	8.1	1.2	7.9	18.3	20.8	27.1	31.0	



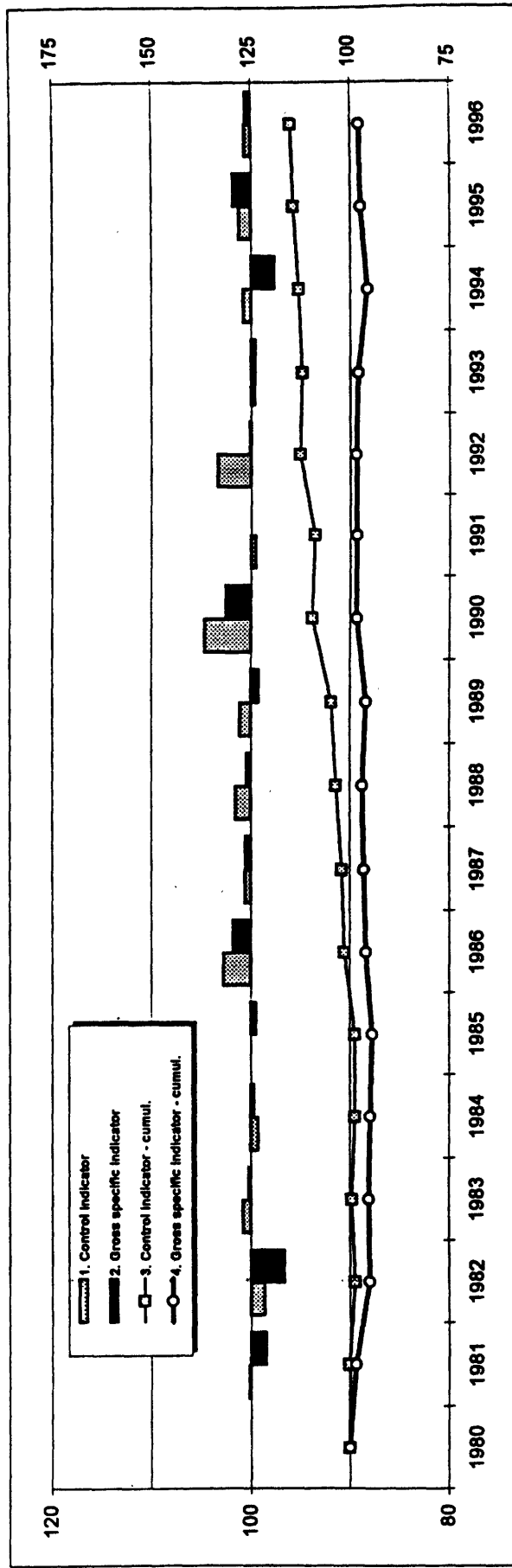
GRAPH IV.1.L Real changes in the gross specific indicator and the control indicator in the period 1980 - 1996 United Kingdom

	1980	1981	1982	1983	1984	1985	1986	1986	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1996	
1. Control indicator		100.3	99.2	105.1	100.2	101.2	103.2	105.4	101.3	103.6	104.2	104.7	110.6	110.4	113.5	102.2	100.5				
2. Gross specific indicator		96.9	97.5	101.0	100.4	98.2	104.1	100.8	102.5	98.1	102.7	102.6	100.7	100.9	99.3	98.9	101.5				
Difference		3.4	1.7	4.1	-0.2	3.0	-0.9	4.6	-1.2	5.5	1.5	2.1	9.9	9.5	14.2	3.3	-1.0				
3. Control indicator - cummul.	100.0	100.3	99.5	104.6	104.8	106.1	109.4	115.4	116.9	121.2	126.3	132.2	146.2	161.4	183.1	187.2	188.1				
4. Gross specific indicator - cummul.	100.0	96.9	94.5	95.4	95.8	94.1	97.9	98.7	101.2	99.3	101.9	104.6	105.3	106.3	105.5	104.4	105.9				
Difference		3.4	5.0	9.2	9.0	12.0	11.5	16.7	15.7	21.9	24.3	27.6	40.9	55.1	77.6	82.8	82.2				



GRAPH IV.1.M Real changes in the gross specific indicator and the control indicator in the period 1980 - 1996 EUR 15

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1. Control indicator																	
2. Gross specific indicator	100.1	98.5	100.8	99.2	100.0	102.8	100.6	101.1	101.5	101.1	104.7	99.5	103.3	99.6	100.8	101.2	100.6
Difference	1.7	2.0	0.6	-0.4	0.6	1.0	0.1	1.1	2.0	2.2	-0.5	3.2	0.1	3.2	-0.6	0.1	
3. Control indicator - cummul.	100.0	100.1	98.7	99.4	98.6	101.3	101.9	103.5	104.6	109.5	108.9	112.5	112.0	112.0	112.9	114.3	115.0
4. Gross specific indicator - cummul.	100.0	98.4	95.0	95.1	94.8	94.2	95.9	96.4	96.8	95.9	98.3	98.3	98.4	97.9	95.5	97.3	97.7
Difference	1.7	3.7	4.3	4.3	3.9	4.4	5.4	5.5	6.7	8.7	11.2	10.6	14.2	14.2	17.4	17.0	17.2



**Total Emoluments in the Central
Governments of the Member
States and other Economic and
Social Indicators#**

1996 provisional

Eurostat - ANNEX

**SALARIES OF SECTOR S61 (CENTRAL GOVERNMENT)
TOTAL**

TABLE IV.2.A

**AT CURRENT PRICES
NATIONAL CURRENCY**

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
B	303080	334410	353723	359544	374441	396906	409136	409046	408846	434297	460312	498445	528047	562709	593048	619317	633575
DK	20909	24007	27606	29897	31290	32522	32692	35547	39014	40624	41134	42870	44500	45088	49946	48143	50926
D	111540	118490	121690	125570	127900	132220	137830	142500	146050	149610	157680	189560	206570	217030	220780	227680	229422
GR	144409	180331	233255	288815	363211	471804	571689	665969	797498	1004401	1267640	1446562	1591499	1853773	2048254	2313114	2603278
E	928167	1044398	1142545	1261233	1247547	1352989	1470180	1587381	1733100	1920331	2185540	2420846	2713664	2830780	2888437	3081500	3262125
F	234387	269241	315233	347381	377338	403261	422429	427176	441342	461007	483624	507480	537884	567543	590670	613906	623123
IRL	636300	828733	1014118	1097579	1196447	1270711	1362461	1447743	1446534	1521850	1637430	1797569	1934719	2050471	2143428	2205995	2263668
I	24831	32725	37685	44700	51443	56737	62796	69404	78765	85344	100497	107128	114708	116721	111716	114878	123289
L	11445	12699	13414	14637	15818	16759	18216	20059	20507	22005	25919	27545	29092	30358	32614	34700	36310
NL	17700	18150	18790	18990	18790	18950	19040	19480	19580	19720	20250	20880	22340	22780	25170	26127	26589
A	48426	53198	58281	62400	65965	70309	74730	77799	79388	83177	87759	95761	102188	109218	113972	117038	117497
P	129020	157659	191095	241111	295248	369199	449900	528800	665100	821300	1103300	1257100	1508000	1653300	1705200	1879500	1992270
FIN	5763	6718	7764	8945	9726	10689	11322	12770	14532	15555	17080	17983	18225	17454	17516	17575	18312
S	21900	23200	24200	25200	26200	27200	29800	31200	32400	35900	41600	44400	45700	47200	48100	49742	52160
UK	15849	17888	19087	20899	21762	23213	24655	26846	28707	31423	34571	36694	39042	36318	30549	28584	28999
EUR15	170391	193056	208879	221700	234464	248635	259665	270479	286734	306182	333247	365150	389022	391696	389352	396086	410089

National currency unit: millions
except • Ireland: 1000
• Italy: billions

European Union in PPS

**EMPLOYEES IN CENTRAL GOVERNMENT S61
TOTAL**

TABLE IV.2.B

1000

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
B	446	452	458	442	440	448	454	452	453	448	449	448	441	436	418	411	412
DK	146	152	158	159	158	159	160	161	162	165	165	164	164	165	162	162	166
D	2601	2635	2655	2679	2677	2709	2730	2733	2739	2757	2734	3434	3372	3336	3316	3223	3175
GR	150	152	169	174	181	204	219	223	221	227	224	225	221	224	226	231	234
E	673	698	693	647	607	629	636	648	673	698	729	751	772	772	766	779	813
F	2549	2576	2636	2682	2707	2757	2792	2805	2823	2828	2843	2862	2911	2998	3026	3066	3069
IRL	85	89	101	97	96	95	95	94	95	89	89	89	91	91	89	91	92
I	1857	1900	1937	1953	2002	2025	2048	2100	2145	2152	2144	2150	2166	2153	2128	2006	1999
L	12	12	12	12	13	13	13	13	13	13	14	15	15	15	15	16	16
NL	312	319	321	319	318	322	325	328	327	324	317	316	313	313	315	316	312
A	305	309	310	315	315	318	318	316	315	318	312	305	303	304	237	235	233
P	386	403	421	438	447	459	469	478	509	522	532	545	550	533	526	530	530
FIN	128	132	138	142	141	144	145	148	150	149	149	152	152	146	145	144	144
S	319	322	314	306	312	301	305	291	285	287	281	280	275	267	257	254	253
UK	2440	2464	2443	2429	2406	2406	2383	2357	2365	2361	2361	2225	2045	1669	1205	1075	1058
EUR 15	12409	12614	12766	12794	12819	12989	13092	13147	13276	13339	13343	13961	13791	13421	12832	12538	12506

**SALARIES OF SECTOR S61 (CENTRAL GOVERNMENT)
PER WAGE AND SALARY EARNER**

TABLE IV.2.C

**AT CURRENT PRICES
NATIONAL CURRENCY**

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
B	679552	739845	772321	813448	851002	895951	901181	904969	902530	969413	1025194	1112600	1197385	1290617	1418775	1506954	1540005
DK	143212	157941	174722	188031	198038	204541	204325	220789	240827	246206	249297	261402	271341	273261	308309	297179	306689
D	42884	44968	45834	46872	47777	48808	50487	52141	53322	54266	57674	55201	61260	65057	66580	70642	72267
GR	962725	1186390	1380208	1659857	2006690	2312765	2610452	2986408	3608588	4424674	5659107	6429164	7201353	8264151	9067677	10019784	11131980
E	1379149	1496272	1648694	1949355	2055267	2150674	2310151	2448906	2574803	2750009	2997997	3223068	3514654	3669190	3768837	3955205	4010578
F	91945	104531	119588	129504	139409	146279	151284	152291	156321	162992	170092	177304	184757	189295	195179	200254	203058
IRL	7486	9312	10041	11315	12463	13376	14342	15402	15227	17099	18398	20197	21378	22434	24056	24297	24734
I	13372	17224	19559	22888	25696	28018	30662	33050	36720	39658	46874	49827	52958	54213	52498	57267	61276
L	953750	1058250	1117833	1219750	1216769	1289154	1401231	1543000	1577462	1692692	1851357	1836333	1939467	2042258	2123949	2202535	2279623
NL	56731	56897	58536	59530	59088	58851	58585	59390	59878	60864	63880	66076	71374	72780	79856	82810	85211
A	158774	172162	188003	198095	209413	221097	235000	246199	252025	261563	281279	313970	337254	359736	480659	498072	503550
P	334248	391213	453908	550481	660509	804355	959480	1107203	1305854	1574276	2075042	2304914	2743315	3103623	3243058	3544889	3757582
FIN	45023	50894	56188	62993	69979	74229	78083	86284	96880	104396	114631	118309	119901	119548	120800	122049	127419
S	66652	72162	77021	82407	84109	90246	97801	107253	113684	125044	148201	158855	166001	176912	187378	195681	206639
UK	6495	7260	7813	8604	9045	9648	10346	11390	12138	13309	14643	16492	19091	21764	25356	26597	27395
EUR 15	13731	15305	16362	17328	18290	19142	19833	20574	21598	22955	24976	26155	28209	29185	30343	31592	32540

National currency unit: I
except Italy: 1000

EUR 15 in PPS

**FINAL NATIONAL CONSUMPTION OF HOUSEHOLDS (P3A)
TOTAL**

TABLE IV.2.D

**PRICE INDICES
1990 = 100**

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
B	63.6	68.7	74.0	79.0	83.8	88.7	89.7	91.9	93.3	96.8	100.0	103.1	105.4	108.6	112.2	114.1	116.4
DK	56.9	63.7	70.1	74.9	79.6	83.1	85.8	89.9	93.4	97.2	100.0	102.3	104.4	104.7	106.4	109.1	111.7
D	77.9	82.8	86.9	89.5	91.9	93.7	93.3	93.9	95.4	97.5	100.0	103.7	108.8	113.4	116.7	119.0	120.9
GR	18.7	22.9	27.7	32.7	38.5	45.5	55.5	64.3	73.4	83.8	100.0	118.8	136.4	155.1	171.8	187.7	203.3
E	40.7	46.6	53.4	60.1	67.3	72.2	79.1	83.7	88.0	93.9	100.0	106.4	113.3	119.5	125.3	131.0	135.8
F	53.5	60.6	67.8	74.4	80.4	85.2	87.8	90.7	93.4	96.9	100.0	103.4	105.9	108.6	110.5	112.3	114.3
IRL	51.4	61.5	70.7	77.2	82.9	87.0	90.3	90.5	94.0	97.8	100.0	102.9	105.6	107.4	110.2	112.4	115.0
I	38.6	45.6	53.4	61.3	68.6	74.8	79.5	83.7	88.5	94.1	100.0	106.8	112.4	117.8	121.8	128.8	134.0
L	61.1	66.3	73.2	79.3	84.5	88.1	89.3	90.7	93.1	96.6	100.0	102.9	105.6	109.4	111.8	114.0	116.0
NL	80.2	85.0	89.3	91.8	93.6	95.7	95.9	96.2	96.7	97.8	100.0	103.2	106.4	108.5	111.4	113.5	115.9
A	70.0	75.2	79.6	82.5	87.2	90.2	92.1	93.2	94.7	97.0	100.0	103.4	107.6	111.5	115.3	117.8	120.3
P	21.0	25.2	30.4	38.1	48.9	58.5	65.2	71.7	79.7	89.5	100.0	111.9	123.7	132.1	139.2	145.1	149.7
FIN	53.6	60.0	65.5	70.9	75.9	80.2	82.7	85.8	89.8	94.4	100.0	105.5	109.3	113.6	115.3	115.8	116.9
S	45.8	51.3	56.5	62.5	67.3	72.2	75.9	80.0	85.0	90.9	100.0	110.6	113.2	118.8	122.4	125.7	127.8
UK	56.0	62.4	67.7	70.9	74.4	78.4	81.5	85.1	89.5	94.7	100.0	107.6	112.6	116.3	119.4	122.5	125.8
EUR 15	60.2	67.0	72.7	76.4	81.3	85.1	85.8	88.5	91.5	96.2	100.0	105.3	109.9	114.2	117.8	121.2	124.9

**SALARIES OF SECTOR S61 (CENTRAL GOVERNMENT)
PER WAGE AND SALARY EARNER**

TABLE IV.2.E

**AT 1990 PRICES
NATIONAL CURRENCY**

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
B	1068478	1076921	1043677	1029681	1015516	998817	1004661	984732	967342	1001460	1025194	1079146	1136039	1188413	1264505	1320643	1323284
DK	251691	247945	249247	251043	248791	246138	238141	245594	257845	253298	249297	255525	259905	260994	289764	272391	275859
D	55050	54309	52743	52371	51988	52050	54113	55528	55893	55657	57674	53231	56305	57369	57052	58592	58885
GR	5148262	5180742	4982700	5076015	5212182	5083000	4703517	4644491	4916332	5280041	5659107	5411754	5279584	5328273	5278042	5338191	5476983
E	3388572	3210884	3087442	3243519	3053889	2978773	2920545	2925814	2925913	2928657	2997997	3029199	3102076	3070452	3007851	3019240	2955835
F	171860	172493	176383	174065	173394	171689	172305	167906	167367	168206	170092	171474	174464	174305	173259	175165	174289
IRL	14564	15141	14202	14657	15034	15375	15882	17018	16199	17484	18398	19628	20244	20888	21830	21617	21509
I	34641	37771	36627	37337	37457	37458	38569	39486	41492	42145	48874	46654	47116	46021	43102	44462	45751
L	1560966	1596154	1527094	1538146	1439963	1463285	1569128	1701213	1694374	1752269	1851357	1784580	1836616	1867838	1908930	1937564	1972440
NL	70737	66938	65550	64847	63128	61495	61090	61736	61921	62233	63880	64027	67081	67886	67614	70319	71022
A	226820	228939	238185	240115	240153	245119	255157	264162	266130	269653	281279	303646	313433	322633	416877	422812	419007
P	1591657	1552433	1493118	1444832	1350734	1374966	1471595	1544216	1638211	1758968	2075042	2059798	2217716	2349450	2329783	2443066	2509029
FIN	83998	84823	85783	88848	90881	92555	94417	100564	107884	110589	114631	112141	109699	105236	104770	105396	109085
S	149895	140667	136320	131851	124976	124994	128855	134066	133746	137562	148201	143630	146644	148916	153087	155673	161589
UK	11598	11635	11541	12135	12157	12306	12694	13384	13562	14054	14543	15327	16955	18714	21236	21712	21821
EUR 15	22809	22843	22506	22681	22497	22494	23115	23247	23604	23862	24976	24839	25668	25556	25758	26066	26222

National currency unit: 1
except Italy: 1000

EUR 15 in PPS

Deflated by price index of household consumption

**SALARIES OF SECTOR S61 (CENTRAL GOVERNMENT)
PER WAGE AND SALARY EARNER (%)**

TABLE IV.2.F

**AT 1990 PRICES
T/T-1 %**

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
B		100.8	96.9	98.7	98.6	98.4	100.6	98.0	98.2	103.5	102.4	105.3	105.3	104.6	106.4	104.4	100.2
DK		98.5	100.5	100.7	99.1	98.9	98.8	103.1	105.0	98.2	98.4	102.5	101.7	100.4	111.0	94.0	101.2
D		98.7	97.1	99.3	99.3	100.2	103.9	102.6	100.7	99.6	103.6	92.3	105.8	101.9	99.4	104.1	100.5
GR		100.6	96.2	101.9	102.7	97.5	92.5	98.7	105.9	107.4	107.2	95.6	97.6	100.9	99.1	101.1	102.6
E		94.8	96.2	105.1	94.2	97.5	98.0	100.2	100.0	100.1	102.4	101.0	102.4	99.0	98.0	100.4	97.9
F		100.4	102.3	98.7	99.6	99.0	100.4	97.4	99.7	100.5	101.1	100.8	101.7	99.9	101.3	100.1	99.5
IRL		104.0	93.8	103.2	102.6	102.3	103.3	107.2	95.2	107.9	105.2	106.7	103.1	103.2	104.5	99.0	99.5
I		109.0	97.0	101.9	100.3	100.0	103.0	102.4	105.1	101.6	111.2	99.5	101.0	97.7	93.7	103.2	102.9
L		102.3	95.7	100.7	93.6	101.6	107.2	108.4	99.6	103.4	105.7	96.4	102.9	101.6	101.8	101.7	101.8
NL		94.6	97.9	98.9	97.3	97.4	99.3	101.1	100.3	100.5	102.6	100.2	104.8	100.0	106.9	101.8	101.0
A		100.9	103.2	101.7	100.0	102.1	104.1	103.5	100.7	101.3	104.3	108.0	103.2	102.9	129.2	101.4	99.1
P		97.5	96.2	96.8	93.5	101.8	107.0	104.9	106.1	107.4	118.0	99.3	107.7	105.9	99.2	104.9	102.7
FIN		101.0	101.1	103.6	102.3	101.8	102.0	106.5	107.3	102.5	103.7	97.8	97.8	95.9	99.6	100.6	103.5
S		93.8	96.9	96.7	94.8	100.0	103.1	104.0	99.8	102.9	107.7	96.9	102.1	101.5	102.8	101.7	103.8
UK		100.3	99.2	105.2	100.2	101.2	103.2	105.4	101.3	103.6	104.2	104.7	110.6	110.4	113.5	102.2	100.5
EUR 15		100.2	98.5	100.8	99.2	100.0	102.8	100.6	101.5	101.1	104.7	99.4	103.3	99.6	100.8	101.2	100.6

Deflated by price index of household consumption

**SALARIES OF SECTOR S61 (CENTRAL GOVERNMENT)
% OF EACH COUNTRY WITH RESPECT TO THE EUR 15**

TABLE IV.2.G

**EUR 15 = 100
ECU**

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
B	4.38	4.19	3.79	3.57	3.51	3.55	3.60	3.51	3.28	3.27	3.26	3.23	3.26	3.55	3.84	4.06	3.96
DK	1.57	1.57	1.62	1.66	1.64	1.63	1.59	1.67	1.71	1.65	1.57	1.48	1.46	1.52	1.70	1.66	1.68
D*	25.93	24.41	24.52	24.95	24.37	23.89	24.94	25.43	24.55	23.60	23.06	25.31	26.28	28.61	29.46	30.67	29.38
GR	1.43	1.52	1.71	1.67	1.75	1.79	1.60	1.58	1.66	1.83	1.89	1.76	1.66	1.76	1.83	1.93	2.06
E	5.46	5.27	5.09	4.46	4.20	4.21	4.12	4.13	4.39	4.81	5.07	5.16	5.26	4.85	4.67	4.77	5.01
F	23.44	23.09	23.47	23.14	23.42	23.87	23.92	22.79	21.87	21.44	20.99	19.93	20.19	21.84	23.04	23.75	24.02
IRL	0.55	0.62	0.70	0.69	0.70	0.71	0.72	0.69	0.65	0.64	0.64	0.64	0.65	0.65	0.69	0.68	0.68
I	12.25	13.42	13.70	14.94	15.88	15.76	16.54	17.17	17.87	18.45	19.81	19.13	18.48	16.18	14.99	13.62	14.77
L	0.17	0.16	0.14	0.15	0.15	0.15	0.16	0.17	0.16	0.17	0.18	0.18	0.18	0.19	0.21	0.23	0.23
NL	3.76	3.39	3.44	3.38	3.18	3.04	3.05	3.09	2.92	2.76	2.63	2.47	2.52	2.67	2.99	3.14	3.06
A	1.58	1.56	1.67	1.76	1.79	1.81	1.92	1.98	1.90	1.86	1.82	1.82	1.85	2.05	2.16	2.24	2.12
P	1.09	1.19	1.17	1.10	1.09	1.14	1.18	1.20	1.36	1.55	1.83	1.93	2.22	2.24	2.22	2.42	2.49
FIN	0.65	0.73	0.79	0.82	0.88	0.92	0.88	0.93	1.03	1.08	1.06	0.98	0.81	0.67	0.73	0.78	0.74
S	2.19	2.13	1.89	1.67	1.72	1.68	1.64	1.58	1.56	1.65	1.66	1.63	1.56	1.31	1.35	1.35	1.49
UK	15.54	16.75	16.30	16.06	15.71	15.85	14.14	14.08	15.07	15.24	14.53	14.34	13.61	11.89	10.11	8.71	8.33
EUR 15	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

* West Germany

**SALARIES OF SECTOR S60 (GENERAL GOVERNMENT)
PER WAGE AND SALARY EARNER (%)**

TABLE IV.2.H

**AT 1990 PRICES
T/T-1 %**

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
B		99.6	97.6	96.3	98.4	99.0	100.4	98.9	98.7	103.2	101.5	107.1	104.3	101.7	99.4	101.2	100.2
DK		98.6	102.7	100.0	98.2	100.1	100.2	104.4	103.8	98.2	100.5	101.9	102.1	100.8	100.4	100.7	101.4
D		98.7	97.2	99.2	99.2	100.6	103.4	102.4	100.5	99.3	102.5	73.5	105.8	101.7	99.2	103.1	100.5
GR		102.0	98.2	100.3	103.5	96.1	85.9	98.5	103.9	103.7	104.5	94.9	95.7	98.3	99.5	100.5	103.2
E		98.2	98.0	102.1	96.5	101.5	98.9	100.3	101.0	100.4	102.4	102.9	103.4	100.4	99.0	98.8	96.9
F		100.3	102.5	98.9	99.5	97.6	101.1	99.1	100.4	100.9	101.7	100.9	102.1	100.3	100.7	101.8	99.5
IRL		101.4	97.3	101.8	103.3	103.7	102.8	99.1	102.9	104.9	104.7	106.4	103.1	106.5	101.9	102.4	104.3
I		109.5	98.1	100.9	99.2	100.2	102.7	103.8	104.7	100.7	110.7	101.4	100.9	97.6	99.7	97.9	102.9
L		102.5	96.1	95.2	101.0	102.1	100.9	107.7	95.8	101.3	105.8	104.6	104.7	101.6	101.8	101.7	101.6
NL		94.3	97.9	97.8	97.1	97.8	100.2	101.4	99.3	99.8	101.6	101.9	102.5	99.2	99.0	101.8	101.0
A		100.5	102.1	102.2	99.4	102.0	102.9	102.6	100.4	101.5	102.2	104.9	100.8	100.5	99.3	100.6	99.0
P		97.0	97.7	95.9	93.0	102.8	105.0	106.0	105.2	106.8	105.3	108.1	105.8	103.7	98.2	102.2	103.7
FIN		101.5	101.2	103.1	103.3	102.6	103.8	103.2	103.9	103.2	103.2	100.8	98.8	95.9	98.5	102.8	103.5
S		95.2	96.8	97.2	97.4	98.7	105.4	102.8	98.8	101.3	105.0	97.2	105.0	97.8	99.6	99.5	103.9
UK		103.1	99.4	103.6	100.1	102.1	100.6	103.8	100.9	106.0	102.9	102.8	104.9	104.7	101.7	100.5	100.5
EUR 15		101.5	99.3	100.4	99.2	100.2	101.5	102.0	101.6	102.0	103.9	102.6	102.5	102.3	99.9	99.1	100.6

Deflated by price index of household consumption

**COMPENSATION OF EMPLOYEES (R10)
PER WAGE AND SALARY EARNER (%)**

TABLE IV.2.1

**AT 1990 PRICES
T/T-1 %**

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
B		101.6	100.6	100.5	101.4	98.7	100.5	99.4	100.4	98.7	104.5	104.7	102.3	100.3	101.4	100.2	99.7
DK		99.2	101.2	100.5	99.9	100.4	99.8	103.0	101.6	99.6	101.2	101.3	102.2	101.5	101.6	100.7	102.1
D		101.1	99.8	100.4	101.3	100.9	100.4	101.3	101.5	100.4	101.6	90.5	106.0	101.2	100.3	101.8	100.8
GR		101.4	102.2	101.9	100.3	104.8	96.2	97.9	106.4	105.6	101.3	96.0	94.9	95.5	101.0	103.0	102.5
E		102.4	99.8	101.8	98.5	100.2	98.6	100.8	101.4	99.4	100.9	101.3	102.5	101.0	98.3	97.9	100.2
F		102.4	101.6	100.2	100.8	100.5	98.9	100.5	101.1	100.8	101.9	101.2	102.1	100.0	100.1	100.8	100.3
IRL		93.0	80.2	103.2	104.0	106.8	98.7	104.1	103.3	102.1	106.0	103.7	104.9	105.2	98.6	99.9	101.7
I		103.0	99.1	100.8	100.2	101.1	99.7	102.1	101.9	102.4	102.9	101.0	101.0	98.9	99.6	99.5	101.9
L		100.9	96.5	100.7	101.9	100.6	99.7	99.6	104.7	100.1	102.6	103.9	101.0	101.5	101.2	101.9	101.7
NL		98.0	99.9	101.2	98.2	99.4	101.9	102.0	99.7	99.5	100.9	101.6	101.9	101.1	99.6	101.1	99.3
A		100.3	100.3	101.6	101.6	102.0	103.5	103.0	101.7	101.7	101.7	101.1	100.5	100.4	99.6	101.6	100.9
P		103.4	100.7	96.9	95.7	99.8	102.5	107.2	104.9	101.8	108.3	99.9	102.7	101.0	99.6	101.4	101.4
FIN		102.1	100.4	101.7	103.3	104.4	104.2	104.0	104.2	105.2	103.1	100.1	97.5	97.2	102.0	104.2	103.1
S		97.4	96.0	97.3	100.3	100.5	103.4	101.4	101.3	104.0	101.3	96.8	102.5	93.6	100.9	101.9	103.9
UK		102.3	100.8	103.4	101.4	101.6	104.7	102.3	101.8	101.7	102.4	101.6	100.8	100.4	100.8	100.3	100.8
EUR 15		100.7	99.8	100.7	100.2	101.1	101.9	101.2	101.0	100.3	101.7	97.1	102.4	96.2	96.9	97.2	100.8

Deflated by price index of household consumption

**GROSS DOMESTIC PRODUCT AT MARKET PRICES (N1)
PER OCCUPIED PERSON**

TABLE IV.2.J

**VOLUME CHANGE
T/T-1 %**

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
B		100.2	103.0	101.2	102.4	100.1	101.0	101.7	103.4	101.8	102.2	101.4	102.2	99.7	103.0	101.5	100.8
DK		100.4	102.6	102.2	102.6	101.7	101.0	99.5	101.7	101.1	102.5	102.9	100.9	102.5	105.0	101.1	101.0
D		100.2	100.3	103.2	102.6	101.3	100.9	100.7	102.9	102.1	102.7	88.3	104.1	100.6	103.6	102.2	101.3
GR		95.3	101.2	99.4	102.4	102.1	101.5	100.6	103.2	103.8	97.9	105.3	99.0	96.9	100.3	101.1	100.8
E		102.5	102.5	102.7	104.0	100.9	101.8	101.1	101.7	101.3	100.1	101.3	102.2	102.6	102.7	100.3	100.5
F		101.1	101.9	100.9	102.2	102.1	102.0	101.9	103.3	102.5	101.3	100.7	101.8	99.6	102.8	101.0	101.0
IRL		104.2	102.3	101.7	106.3	105.4	103.7	104.6	104.1	105.8	103.2	102.6	103.6	101.5	103.5	104.6	103.1
I		100.6	99.7	100.3	102.3	101.7	102.1	102.7	103.1	102.8	101.2	100.4	101.8	101.7	103.7	103.8	101.8
L		98.8	101.8	103.0	106.2	112.3	104.2	101.5	103.3	103.7	98.6	100.4	99.9	103.6	101.3	100.7	100.9
NL		100.8	101.5	103.7	103.1	101.2	100.7	99.7	101.0	102.7	101.7	100.9	101.0	100.4	102.6	101.0	100.8
A		99.9	102.5	102.9	101.2	102.1	100.9	101.8	103.8	102.5	102.3	101.1	101.5	100.8	102.9	101.9	101.4
P		101.1	104.0	100.1	98.0	102.0	90.0	104.0	102.6	102.3	103.5	99.6	100.0	103.4	101.3	103.1	102.4
FIN		100.7	102.1	102.3	102.5	103.3	102.9	103.6	104.2	104.9	100.6	98.0	103.7	105.7	105.6	103.2	99.8
S		99.8	101.2	101.5	103.2	100.9	101.7	102.3	100.9	99.3	102.0	100.4	103.2	102.8	103.2	101.4	100.9
UK		102.7	103.4	104.9	99.8	102.3	104.5	102.8	101.7	99.6	99.3	101.1	101.4	103.7	103.8	101.7	101.5
EUR 15		101.2	101.6	102.3	102.2	101.5	101.7	101.5	102.6	101.8	101.3	98.3	101.6	101.3	102.3	102.0	101.3

Deflated by price index of household consumption

Report of Eurostat Studies on Remuneration 1995/1996

November 1996

A. Introduction

1. The annual adjustment of the remuneration of officials of the European Communities is determined by the principle of parallel development of their purchasing power with national central government civil servants.
2. To determine the purchasing power of national officials, the Statistical Office of the European Communities is providing an annual report. The legal basis for this report are Article 64 and 65 and Annex XI of the Staff Regulations for the European Communities.
3. According to Annex XI of the Staff Regulations the Statistical Office is authorised to carry out any study concerning remuneration issues, if necessary.

"It shall be the task of the Statistical Office of the European Communities to monitor the quality of basic data and statistical methods used to work out the factors taken into account for the adjustment of remuneration. In particular, it shall make any assessments or to carry out any studies required for such monitoring." (Annex XI, Article 11)

4. On the basis of this obligation Eurostat launched two studies in 1995. Study No1: *Examination of national systems of remunerating civil servants*. The aim of this study is to examine in detail the recent evolution of national systems of remunerating civil servants. Study No2: *Divergence between specific indicator and control indicator*. The aim of this study is to assess and quantify the causes of the divergence between the specific indicator and the control indicator.

B. Study No1: Examination of national systems of remunerating civil servants

5. Recently the remuneration systems of civil servants in Member States go through a period of reform. To be able to maintain the principle of parallel development between the purchasing power of civil servants in Member States and EC officials, Eurostat needs detailed information of these changes.
6. The aim of the study was to observe in detail recent changes in national remuneration systems and to evaluate their impact on the application of Article 65 and Annex XI of the Staff Regulations. The principal conclusions for the countries under consideration can be summarised as follows:
7. For France before 1983 salary negotiations were finalised towards a strict maintenance of the purchasing power of earnings. After that date the notion of wage-bill change includes the effects of the career advancements, the maintenance of real purchasing power is granted (on average) only to the individuals who progress in the occupational ladder. After 1989 the composition of pay has gone through a significant change. In the late 80's and in the 90's the evolution of the 'additional' components of pay progressively gained in importance. The average rate for the premia, in 1992, was 18 percent of net pay. In recent years Eurostat took

into account the premiums that are paid in the French civil service. Therefore, the specific indicator is able to record correctly the change in the development of the purchasing power in the French civil service.

8. For Italy in the 80's the existence of a mechanism of indexation has determined a fast increase in total remuneration of public sector employees. Recent changes in pay determination practices have significantly altered the composition of pay, eliminating almost all automatic components of pay increases. Indemnities still represent an important component of pay and can vary a lot across sectors and occupations. The indemnities, that are now published officially, are taken into account by Eurostat in the calculation of the specific indicator. Therefore, the specific indicator is representing correctly the change in the purchasing power for Italian civil servants.

9. In Sweden agencies have been an administrative feature for several hundred years, but only recently they have gained powers over budgets and pay, which we now associate with this administrative form. In 1989 the highly centralised system of wage determination in the Swedish public sector was abandoned. Today in fact it is local negotiations which set pay levels. Local negotiations also determine the scope for any pay increases beyond the general scope identified in the central agreements. Although there exist local negotiations, the outcome is still followed centrally by the Ministry of Finance and Statistics Sweden. Eurostat makes use of these central data, and therefore the decentralisation poses no problems to Eurostat.

10. Pay reform in the United Kingdom civil service has taken two main forms, decentralisation and individualisation. Under decentralisation decisions over pay and grading have been progressively delegated to newly formed agencies and to existing government departments. Under individualisation, the procedures for adjusting pay have been changed to produce a closer link between increases in pay and improvements in performance. In a first step executive agencies, more commonly known as 'Next Steps' agencies, were created and from April 1996 the principles governing pay in these agencies were to be extended to the rest of the civil service. In April 1995 executive Agencies covered just over 50 per cent of all full-time staff in the civil service. Departments, like agencies, will be free to construct pay and grading structures to fit the needs of their organisation and in consequence the common grading structure will disappear. The most recent performance pay agreements have two distinguishing features. Firstly, satisfactory performance is regarded as a necessary condition for the receipt of any general pay increase. Secondly, the old pay scales have been replaced by pay spines, within which different pay bands are identified for each grade of civil servants and progress up the band is determined solely by performance. In the UK there exists no longer a central data base due to the decentralisation efforts. Therefore, Eurostat approached directly some of the big agencies and governmental departments to be able to monitor the development of pay in the UK civil service. With respect to the individualisation of pay, Eurostat calculated the specific indicator (whenever possible) on a matched pairs basis to avoid structural effects. With respect to performance pay Eurostat excluded all components that are considered to be equivalent to the former step increases and promotions. With this adjustment of the practical procedure, Eurostat is able to record the development of the purchasing power as requested in the Staff Regulations.

11. The conclusion for the countries that were examined is that the current 'method' is able to record the change in the purchasing power of national civil servants. Eurostat is planning to continue the studies for the rest of the Member States.

C. Study No2: Divergence between specific indicator and control indicator

12. For the purpose of measuring the percentage change in the purchasing power of salaries in the national civil services, the Statistical Office calculates specific indicators reflecting those changes in the remuneration of civil servants.

13. Annex XI of the Staff Regulations states:

"Besides the specific indicators, the Statistical Office shall submit control indicators in the form of data on real per capita emoluments in general government and in central government, drawn up in accordance with national accounts definitions. The Statistical Office report on the specific indicators shall be accompanied by explanations of the differences between these indicators and the abovementioned control indicators."(Annex XI, Article 1, 4(d))

14. In recent years it turned out that in some Member States there was a difference between the specific indicator and the control indicator for central government.

15. Eurostat identified the reasons for this divergence, since there are conceptual differences between the two indicators: (i) social contributions of the employers are included in the control indicator, but not in the specific indicator; (ii) there is a structural effect. If e.g. the average age of the reference population changes, the specific indicator must not change, if it should reflect properly the principle of parallelism, but the control indicator will change. Further, the specific indicator is excluding some elements of pay, e.g. regional allowances, because it should be avoided that the specific indicator will change, if people simply move in or out London. But the control indicator is including such elements; (iii) control indicator and specific indicator refer to a different reference population.

16. The control indicator has the function of a check indicator. If the conceptual differences between the both indicators would be netted out, they should develop in the same way. For four countries (Germany, France, Italy and the United Kingdom) Eurostat conducted the exercise of netting out numerically the conceptual differences between the two indicators. It turned out that the different reasons for the divergence are different between Member States and even differ over time. But if the conceptual differences are netted out, the two indicators are developing in the same way.

17. For the practical purpose of annually checking the specific indicator, the control indicator is not very convenient, since there are conceptual differences. Data on the various components of these differences become available with a considerable time-lag. On the other hand, there is no EC-wide alternative for the control indicator.

18. For some Member States, however, specific solutions for the checking procedure might be found. For example in the case of France, where the 'l'indice INSEE des traitements' may be an additional indicator for checking.

19. For the following years Eurostat will continue to publish the control indicator and explain the development of it, and the differences between the control indicator and the specific indicator. Eurostat will elaborate different possibilities of checking and will make proposals, if it turns out that a valuable alternative to the control indicator is available. This is at present not the case.

References (available in EN, FR, DE):

Elliott, R. (1996), Pay reform in Sweden and the UK and the Adjustment of Commission Salaries: The Impact of Changes in the Procedures for Determining the Pay of Civil Servants in Sweden and the UK on the Construction of the Specific Indicator.

Lucifora, C. (1996), ART. 65: Examination of National Systems of Remunerating Civil Servants: the Case of France and Italy.

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**PAY REFORM IN SWEDEN AND THE UK AND THE ADJUSTMENT OF
COMMISSION SALARIES: The Impact of Changes in the Procedures for Determining
the Pay of Civil Servants in Sweden and the UK on the Construction of the Specific
Indicator**

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1. INTRODUCTION

- 1.1 The annual adjustment of Commissions salaries results from the application of rules set out in staff regulations (a legal document). Eurostat's task is to interpret these rules in a practical and appropriate manner and thereby identify the annual adjustment that is warranted. The method they employ to achieve this is set out in the construction of the specific indicator.
- 1.2 The basic aim of the method employed to construct the specific indicator is enshrined in the concept of parallelism. EC salaries are supposed to change in line with changes in the average remuneration of civil servants in the fifteen member states. At present this is achieved by comparing 'snapshot' values of remuneration for each of the principal grades of civil servants at the 1st July each year.
- 1.3. For the most part member states provide details of gross remuneration at various scale points for each of the selected grades, although some countries, the UK among them, have recently supplied data which more directly measures the average size of the change in the remuneration per grade. Details of net remuneration or the change in net remuneration are also supplied where the gross has been adjusted by the deduction of tax, social security and pension contributions and any other statutory deductions. These calculations are made separately for those civil servants who are single and those who are married with two children.
- 1.4 The several figures that emerge from these calculations are then combined, for the most part using employment numbers as weights, compared to previous year values and deflated using the national consumer price index to produce measures of changes in the average gross real remuneration and the average net remuneration of civil servants in each member state. Of these two figures it is the one measuring the change in the average net real remuneration of civil servants which is the most significant. These figures from each member state are then weighted together using as weights the share of each country in the total central government remuneration in the European Union. This produces a single overall figure, the specific indicator, which can then serve as the basis for adjusting commissions salaries.
- 1.5 However the simple comparison of remuneration at different points on the salary scales on which civil servants are paid is no longer possible in Sweden and the UK. In the former country salary scales have been replaced by a system of individual and differentiated pay while in the latter country salary scales have been replaced by pay bands. Significantly the maximum and minimum points on these pay bands can now be changed without such changes having any immediate impact on the average remuneration of civil servants in that grade.
- 1.6 Both Sweden and the UK have decentralised the process of determining the pay of civil servants and as a result there is no longer a comprehensive grading structure for civil servants in either country. Although central negotiations between representatives of government employers and employees continue in Sweden these now result in the conclusion of a framework agreement, and it is subsequent negotiations at the level of each government agency which determine both the level of pay and the size of any increase in pay. From April 1996 government departments and executive agencies which employ the civil servants in the UK will assume delegated responsibility for pay and grading. Over the next few years those which have not already done so, are likely

to introduce pay and grading structures specific to their needs and which may well therefore be different from those of other departments and agencies.

- 1.7 These change in the procedures for determining the pay of civil servants in Sweden and the UK mean that the data supplied by these countries to inform the construction of the specific indicator must take a different form to that supplied by the other member states. The report which follows details the appropriate procedures for obtaining the data which most accurately measures changes in the real remuneration of civil servants in the central governments of the two countries. It details both the information necessary to identify the percentage changes in the purchasing power of salaries in the national civil services and how this may be obtained and most appropriately processed. While the information provided to Eurostat may take a different form to that provided by other member states it does not represent a departure from the principles that inform the construction of the specific indicator. Indeed the procedures recommended are likely to more accurately capture changes in the real remuneration of civil servants in the central governments of the two countries.
- 1.8 The second part of the report summarises the method used to construct the specific indicator prior to commenting upon particular aspects of this method. The third part details recent changes in the procedures for determining the pay of civil servants in Sweden before proceeding to discuss the implications of these changes for the data they will supply to Eurostat. The fourth part of the report focuses on the UK. Again it discusses the nature of the innovations that have occurred in recent years in the procedures for determining the pay of civil servants prior to identifying the necessary changes in the nature and sources of data supplied to Eurostat by the UK which are a consequence of these innovations. The fifth and concluding part contains some more general remarks about the method used to construct the specific indicator.

2. CONSTRUCTION OF THE SPECIFIC INDICATOR

The Method

- 2.1 The basic aim of the method used in the annual adjustment of commission salaries is enshrined in the concept of parallelism. EC salaries are supposed to change in line with the average salaries of civil servants in member states. The method that Eurostat use at present may briefly be described as follows:
- (i) Eurostat request data on the remuneration of all permanent central government employees as at 1st July each year from all member states.
 - (ii) Each country sends this data for two representative types of central government employees, those who are married with two children and those who are single. The data are requested for each of the main grades of central government employees, so that the returns are representative of the remuneration of central government employees in each country. Details of the remuneration on the first step on the salary scale and the last step on the salary scale (and where possible the middle step) are requested for each grade.
 - (iii) Eurostat request that the returns distinguish between gross and net remuneration. Gross remuneration is defined as basic salary plus

bonuses plus allowances plus increases affecting the maxima, the final step, of any pay scale. Net remuneration is defined as gross remuneration after deducting employee's national social security contributions, employee's occupational pension scheme contributions, taxes on income deducted at source and other statutory deductions.

- (iv) Eurostat request details of the gross and net remuneration for each of four categories of employees, A to D, where staff are assigned to these categories according to the nature and importance of the duties they undertake. The categories in descending order of rank are defined as follows:
- A Staff engaged in administrative and advisory duties which require university education or equivalent professional experience.
 - B Staff engaged in executive duties which require an advanced level of secondary education or equivalent professional experience.
 - C Staff engaged in clerical duties which require secondary education or equivalent professional experience.
 - D Staff engaged in manual or service duties which require primary education, if necessary supplemented by some technical training.
- It is anticipated that each of these categories will comprise several grades.
- (v) Eurostat also request the number of employees in each of the above grades on the 1st July or as close to that date as possible, for these serve as the weights in their subsequent calculations.
- (vi) Eurostat then calculates the average gross remuneration per grade by adding gross remuneration at the minimum and maximum (and where supplied, middle) and dividing by 2(3). This exercise is conducted for both single and married employees, and the average of these then calculated to give a single figure for the average gross remuneration of each grade. The grades are then weighted together, using the number of employees in each grade to give a single figure for the gross remuneration in each of the categories A, B, C and D.
- (vii) Eurostat also calculate the net remuneration for each of the categories, A, B, C and D using exactly the same procedure as in (vi) above, but using the data on net remuneration for each grade as defined at (iii) above.
- (viii) Having thus calculated both gross and net remuneration in the current year for each of the categories A, B, C and D, Eurostat then compare this data with the data for these same categories in the previous year and calculate the annual changes in gross and net remuneration. They then deflate these figures by the change in the consumer price index over the same interval, July to July, in order to distinguish the real changes in gross and net remuneration. The most important of the two figures thus calculated is the change in real net remuneration, the 'national net real specific indicator'.

- (ix) At the final step the 'net real specific indicators' for each of the member countries are weighted together according to each country's share of the total community central government wage bill as reported in sector S61 of the published national accounts within the European System of Integrated National Accounts (ESA). The resulting figure is the 'net real specific indicator' used to adjust commission salaries.

Comments on the Method

- 2.2 An assumption implicit in the method described above is that changes in the weighted average of remuneration, either gross or net, at the top and bottom of the salary scale for each grade (and where included middle point) accurately capture changes in the average remuneration of central government employees in that grade. This will only be true either when in any year the percentage changes in remuneration are the same at each point on the salary scale for a particular grade or where the weights applied to the two, or three, points on the scale included in the calculation, accurately reflect the distribution of employees receiving the increases recorded at these points. In fact neither of these conditions is likely to be met. The percentage changes in remuneration often vary at different points on the scale; this will be true where either flat rate increases are awarded or the number of scale points are changed in such a way that they change remuneration at either or both the top and bottom of the scale. Also the proportion of employees on the max, typically substantially exceeds the proportion on any other scale point including the minimum. In the UK, for example over half of all employees in most of the grades recorded by Eurostat in earlier years, were 'on the max' and less than 10 per cent were at the minimum.
- 2.3 Thus the method employed by Eurostat measures only approximately the average changes in remuneration in each of categories A to D for it captures only approximately the average change in remuneration in each of the underpinning grades. The adjustments to this method which will be proposed later for Sweden and the UK, capture more accurately changes in average remuneration in categories A to D than does the existing method.
- 2.4 The method described above takes no account of incremental progression, pay progression related to 'years-of-service', where a pay increase is triggered by a further year of service and the employee advances to a higher point on the salary scale. Until recently such progression was a feature of the pay systems in the UK civil service and, although the Swedish system allowed less scope for such progression it was also a feature of their system during the nineteen eighties.
- 2.5 Incremental progression is no longer a feature of either the Swedish or the UK payment systems for civil servants. However in the UK, aside from the annual pay settlement negotiated between the appropriate employers and trade unions, there now exists the opportunity for most civil servants to achieve some additional pay progression as a consequence of their annual performance appraisal. On one view the automatic pay progression once enjoyed by many civil servants as a result of the operation of incremental scales has now been replaced by discretionary pay progression although it should be noted that these new arrangements still provide many civil servants with a source of pay progression. Nonetheless because this aspect

of performance related pay progression has effectively replaced the old incremental pay progression (and it should be noted the consequences of both for the pay bill are treated as broadly similar - both are regarded as self financing) and the old incremental progression was and still is ignored by the Eurostat method, this aspect of the new UK pay system will not be captured by the procedures recommended for the UK.

PAY DETERMINATION IN THE CIVIL SERVICE IN SWEDEN

The Size of the Civil Service

- 3.1 In February 1995 the state sector, central government, employed just over 250,000 people in Sweden. They were employed in more than 200 agencies which are directly responsible to government and which vary substantially in size: the largest employing several thousand and the smallest less than ten.
- 3.2 The state sector includes the police, armed forces and universities but once these are excluded from the total, the reference population for construction of the specific indicator is approximately 100,000. The distribution of this number across the main ministries and departments is shown in Table 1.

Table 1

Employment in the Swedish Civil Service in 1995

Main Ministries and Departments	Numbers Employed
Justice(Justitiedepartementet)*	16,023
Social (Socialdepartementet)	6,091
Transport (Kommunikationsdepartementet)	15,652
Finance (Finansdepartementet)	21,878
Education# (Utbildningsdepartementet)	3,087
Agriculture (Jordbruksdepartementet)	9,472
Labour (Arbetsmarknadsdepartementet)	14,225
Culture (Kulturdepartementet)	5,429
Trade (Näringsdepartementet)	2,087
Home (Civildepartementet)	6,227
Environment (Miljö-o-naturesurdepartementet)	2,207
Total	102,378

Notes:

*excludes the police and prisons

excludes Universities

Recent Pay Reforms in the Civil Service

- 3.3 Agencies have been an administrative feature of the Swedish state for several hundred years, but only recently have they assumed the devolved powers over budgets and pay which we now associate with this administrative form. Decentralised negotiations started on a small scale in 1977 when the central agreement for the first time included provision for small reserves which could be distributed following local negotiations with trade unions.
- 3.4 In 1989 the highly centralised system of wage determination in the Swedish public sector was abandoned. Central negotiations between the National Agency for Government Employers (SAV) and employees representatives continue but these now result in the conclusion of framework agreements which identify the scope for pay increases and the period over which the formal agreement and therefore the agreed

increase is to operate. The framework agreements to date have also specified a minimum size of increase that is guaranteed to all employees, but the size of this minimum can be modified in local negotiations. In fact it is local negotiations, negotiations at the level of the separate agencies and government departments - which for bargaining purpose are also known as agencies - which set pay levels.

- 3.5 Negotiations at the level of the agency between local management and local trade unions, determine both the level of pay and the size of any increase in pay for every individual in an agency. An employees' pay is now set by reference to the difficulty of the work they are performing, the level of responsibility and other work demands, and the results obtained in relation to organisational goals. This system of 'individual and differentiated' pay has replaced the previous system under which employees were paid under a tariff or incremental pay system. These previous incremental scales were relatively short, typically four, at the most eight points, and as a result, under the previous system, the vast majority of employees, over seventy-five per cent in most cases, were already on the maximum.
- 3.6 The introduction of the new system of fixed salary points in 1990 was accompanied by the guarantee that existing employees would be moved to a salary no less than that they received before and therefore in almost all cases the starting point for the system of individual pay was the previous grade maximum. Transitional arrangements, stretching in some cases over a number of years, were agreed to move those below the old grade maximum on to the appropriate salary point. Subsequent adjustments of individual salaries are the subject of negotiations at the agency level.
- 3.7 Local negotiations also determine the scope for any pay increases beyond the general scope identified in the central agreements; they identify opportunities for increasing individual salaries or for promotion, where this does not increase the pay bill of the agency. Such opportunities may arise from efficiency savings and staff turnover. Thus for example although the most recently completed agreement, the one introduced in 1993, identified scope for an average increase of 3.1% for the central government sector as a whole, this is likely to understate the average size of salary increase because agency agreements will have identified further scope for increasing salaries which did not increase agency salary bills.
- 3.8 Each agencies running costs (salary bill and other variable costs) are controlled by a system of 'frame grants'. These are marked-up, the frame grant is increased, according to a formula based on the recorded pay increases in the private sector but they contain no guarantee that the calculated costs of the central agreement for government employees will be centrally financed. The introduction of these frame grants in 1993 effectively meant that the Government and the Financial Committee of Parliament no longer had to endorse the central agreement.

The Implications of the Reforms for the Returns to Eurostat

- 3.9 The recent pay reforms in Sweden have important implications for the data that can be provided to Eurostat to inform the method of adjusting Commission salaries. These are that:

- (i) Because of the absence of salary scales for each main grade it will not be possible to provide details of salaries at the maximum and the minimum of scales.
- (ii) Because the average size of settlement identified in the central agreement is likely to understate the average size of the settlements individuals receive it will be necessary to obtain data at a level which captures the outcome of local negotiations.
- (iii) Because there is no longer any uniform grading structure across the whole of the Swedish civil service it is unlikely to be practical to report pay by grade within categories A, B, C and D.

Swedish Data on the Salaries of Civil Servants

- 3.10 Statistics Sweden, the central statistical office for Sweden, reports the remuneration of salaried employees in central government four times a year (for the middle month of each quarter of the year). The report is divided into two parts, one part concerns salaries and the other employment. It is based on monthly data from administrative registers obtained by SAV and the registers include individual data on monthly salaries plus other allowances, working hours (per cent of hours worked), sex, educational levels, job description, and area of public service.
- 3.11 The statistics are based on data reporting the remuneration of all civil servants in Sweden, they are not obtained from a sample. Once the armed forces, police, higher education and clergy are excluded this leaves a population of around 100,000. These groups excepted coverage is complete. A minority of this number, around 25,000 work in Stockholm but if only data for Stockholm is recorded the numbers in some of the categories A to D may be too small. For this reason and because there are no rules requiring that civil servants in Stockholm be paid differently from those in other parts of the country it is proposed to include data on pay for civil servants throughout Sweden.
- 3.12 With the assistance of the SAV it should be possible to classify the population of civil servants into four categories A to D, but it will not be possible to divide the employees in the register into single officials and those who are married with two dependent children; indeed marital status and the number of dependent children have no impact on gross salary in Sweden and therefore the same data will be delivered for both these groups. Gross basic salary is recorded for all individuals on the register and to this can be added allowances excluding overtime pay to obtain gross remuneration.
- 3.13 The Swedish tax system is relatively straight forward, marital status and the number of dependent children have no effect on tax liability. Data on net earnings can be supplied by Statistics Sweden. Net salary will comprise gross salary plus allowances (excluding overtime pay) minus social security payments, statutory pension contributions, contributions to the health insurance scheme and tax payments. Again the same data will be delivered for both single officials and those married with two dependent children.
- 3.14 It should be noted that at present the Swedish tax system does offer some additional individual allowances which can be offset against tax (interest payments on housing loans and contributions to pension schemes are examples) and which therefore reduce

some individuals tax liabilities. However any change in an individuals tax liability as a result of the application of such allowances is determined through a separate system of self assessment, the outcome of which is unknown to the employer. No adjustment for changes in tax deductions due to such individual and household characteristics can be made, nor indeed should be made for these are not statutory compulsory contributions for which tax allowance is given.

- 3.15 Any changes in the occupational or grade composition of the four categories A to D are likely to affect the average level of salaries (gross and net) reported by Statistics Sweden. It is therefore desirable, that Statistics Sweden report where possible the average salaries and number of employees by grade within category.
- 3.16 Salary statistics are available four times a year. The quarters surrounding the 1st July are May and August and an average of these two figures could therefore be taken. However the August figures would not be available until November and it is therefore proposed to report the May figures only. Even so there is often a significant delay after the central agreement has been reached before local negotiations are complete and therefore the figures for May may still not capture all settlements consequent upon the most recent central negotiations.
- 3.17 Applying the above method to data for civil servants in the Stockholm area only Statistics Sweden have produced the data in Tables 2 and 3 for November 1993 and November 1994. A number of points are worth making about these preliminary results.
- (i) The change in gross salaries over the twelve months to November 1994 exceeds the change in net salaries over the same period. This is in large part because in 1994 individuals were for the first time required to make compulsory payments towards the unemployment insurance scheme.
 - (ii) Category A contains the largest share of employees over 45 per cent in both 1993 and 1994. This is surprising but is explained by the fact that the registers from which the salary data is obtained record only the individual's educational qualifications, not those required for the job they occupy. The Swedish civil service employs a high proportion of university graduates, many of whom are not working in jobs which require university education or equivalent professional experience. However because in this exercise individuals were assigned to categories A, B, C and D according to the qualifications they possess all graduates were allocated to Category A. Statistics Sweden recognise that this is not appropriate and further analysis by Statistics Sweden in conjunction with the SAV will produce a more appropriate allocation of employees to categories A, B and C.

Table 2
Average Salaries of Civil Servants in Sweden in 1993 and 1994

Cat	Gross Salary (SEK)			Net Salary (SEK)		
	1993	1994	% change	1993	1994	% change
A	20,538	21,192	3.2	13,903	14,028	0.9
B	16,065	16,472	2.5	11,487	11,602	1.0
C	14,102	14,757	4.6	10,172	10,465	2.9
D	14,329	14,738	2.9	10,325	10,451	1.2
Av	17,425	18,124	4.0	12,345	12,505	1.3

Net salary 1994 = Gross salary minus income tax, individual contributions to the health insurance scheme and individual contributions to the unemployment insurance scheme (introduced in 1994). Net salary 1993 = Gross salary minus income tax and individual contributions to the health insurance scheme.

Table 3
Number of Civil Servants in Stockholm

Cat	1993		1994	
	1993	Share	1994	Share
A	11,767	46.4	11,810	48.3
B	3,812	15.0	3,737	15.3
C	5,331	21.0	4,862	19.9
D	4,432	17.5	4,045	16.5
Total	25,342	100.0	24,454	100.0

The categories A-D are not based on ISCO codes because of problems with the ISCO standard. The ISCO classification system has not yet been introduced. By autumn 1995 this should be accomplished and the ISCO codes can then be used. This should help resolve problems associated with allocating employees to these categories.

Conclusions

- 3.18 A number of details remain to be clarified but it would appear that Statistics Sweden in conjunction with the Finance Ministry, who retain ultimate responsibility for the returns to Eurostat, will be able to supply data appropriate for the construction of the specific indicator. The data will accurately reflect changes in the gross and net remuneration of civil servants throughout Sweden, and will do so with greater accuracy than the procedures adopted for other member states which record changes at only certain points on the scales under which civil servants are paid.

PAY DETERMINATION IN THE CIVIL SERVICE IN THE UK

The Size of the Civil Service

- 4.1 On the 1st April 1995 there were 516,893 permanent civil servants in the UK. Two-thirds of this number, 345,342, were employed in 'Agencies' while the remaining staff were employed in government departments.¹ The number of staff employed in each of the main government departments at this date are detailed in Table 4. From this it can be seen that four of the largest departments employing staff based predominantly in the UK are the Ministry of Defence employing 83,736, the Home Office employing 9,566, the Ministry of Agriculture, Fisheries and Food at 6,403, and the Employment Department employing 4,886. Subsequent to the compilation of these statistics the Employment Department and Department for Education have been merged to form the Department for Education and Employment which seems likely to employ around 6,500 staff and become the third largest department. After this amalgamation the four largest departments listed above account for 62 per cent of the total civil service not employed in agencies, or government departments operating along next step lines.
- 4.2 Associated with each department are, in most cases, a number of Agencies. These Agencies and the number of staff they employ are detailed in Table 5. It can be seen from this table that the four largest agencies which employ civil servants are the Benefits Agency employing 66,650 permanent staff, the Inland Revenue 54,562, the Employment Service 39,852 and Customs and Excise employing 24,132. Together these four account for 54 per cent of all civil servants employed by 'Agencies' in the UK.

Table 4
Number of Civil Servants in Main Government Departments in the UK at 1st April 1995

Government Department	Total Staff in Post Full-time equivalent
<i>Ministry of Agriculture, Fisheries and Food</i>	6,403
Cabinet Office (excl. OPSS)	640
OPSS	890
Treasury	1,127
<i>Ministry of Defence</i>	83,736
<i>Department for Education</i>	1,635
<i>Employment Department</i>	4,886
Department of the Environment	4,513
Foreign and Commonwealth	5,948
Department of Health	3,437
<i>Home Office</i>	9,566
Lord Chancellors	1,222
National Heritage	369
Northern Ireland Office	210
Scottish Office	4,268

¹ Two of the organisations called 'agencies' in this report are strictly speaking 'departments operating along next step lines'. These are HM Customs and Excise and the Inland Revenue.

Department of Social Services	2,793
Department of Trade and Industry	5,144
Trade	2,300
Welsh Office	1,997
Total in ALL Departments	171,551

Note: These Numbers exclude those employed in associated Agencies and organisation operating along next steps lines and the smaller departments.

Source Civil Service Statistics, 1995.

Table 5
Number of Civil Servants in Agencies in the UK at 1st April 1995

Agency	Total Staff in Post Full-time equivalent
ADAS Agency	1,851
Central Science Laboratory	607
Central Veterinary Laboratory	635
Meat Hygiene Service	813
Chessington Computer Centre	397
Civil Service College	259
Occupational Health and Safety Agency	99
Recruitment & Assessment Services Agency	132
Central Office of Information	507
HMSO	2,913
Central Statistical Office	1,274
<i>Customs & Excise</i>	<i>24,132</i>
<i>Inland Revenue</i>	<i>54,562</i>
Valuation Office	4,531
Royal Mint	972
Paymaster	600
Army Base Repair Organisation	3,257
Defence Animal Centre	41
Defence Clothing & Textile Agency	494
Defence Evaluation Postal & Courier Services	251
Defence Analytical Services Agency	101
Defence Accounts Agency	1,790
Defence Evaluation & Research Agency	11,248
Disposal Sales Agency	67
Duke of York's Royal Military School	95
Flag Officer Naval Training/Reserves	1,474
Hydrographic Office	786
Logistic Information Systems Agency	314
Maintenance Group Defence Agency	4,486
Meteorological Office	2,194
Military Survey	773
Naval Aircraft Repair Organisation	1,528
Queen Victoria School	69
RAF Signals Engineering Establishment	720
RAF Training Group Defence Agency	2,077
Service Children's School (NW Eur)	638

Teachers Pension Agency	391
<i>Employment Service Agency</i>	39,852
Building Research Establishment	667
Planning Inspector	584
QEII Conference Centre	60
Security Facilities Executive (2)	1,117
The Buying Agency	113
Natural Resources Institute	380
NHS Estates	103
NHS Pensions Agency	450
Medical Devices Agency	162
Medicines Control Agency	343
Fire Service College	258
Forensic Science Service	665
UK Passport Agency	1,463
HM Prisons Service	38,936
Court Service (3)	538
HM Land Registry	8,508
Public Record Office	437
Historic Scotland	634
Scottish Fish Protection Agency	238
Scottish Office Pensions Agency	161
Student Awards Agency for Scotland	135
Scottish Prison Service	4,233
Scottish Court Service	831
Registers of Scotland	1,076
Scottish Record Office	121
<i>Benefits Agency</i>	66,650
Child Support Agency	5,984
Contributions Agency	8,899
IT Services Agency	3,535
Resettlement Agency	91
War Pensions Agency	1,296
Companies House	946
Insolvency Service	1,500
Laboratory of the Government Chemist	267
National Engineering Laboratory	249
National Physical Laboratory	670
National Weights & Measures Laboratory	46
Patent Office	884
Radiocommunications Agency	541
Driver & Vehicle Licensing Agency	3,779
Driving Standards Agency	1,679
Marine Safety Agency	383
Coastguard	535
Highways Agency	2,129
Transport Research Laboratory	423
Vehicle Certification Agency	76
Vehicle Inspectorate	1,483
Welsh History Monuments	227

Source: *Civil Service Statistics, 1995*

- 4.3 The system of delegated pay bargaining to be described in the next section, means that initially there will be no central source of information on the remuneration of civil servants in the UK. Accordingly the procedure outlined later in this part of the report proposes gathering the information directly from the four largest government departments and agencies which cover 62 and 54 per cent of civil servants working in departments and 'agencies' respectively.

Recent Pay Reform in the Civil Service

- 4.4 Pay reform in the UK civil service has taken two main forms, decentralisation and individualisation. Under decentralisation decisions over pay and grading have been progressively delegated to newly formed agencies and to existing government departments. Under individualisation, the procedures for adjusting pay have been changed to produce a closer link between increases in pay and improvements in performance.

Decentralisation

- 4.5 The first steps down the road to the decentralisation of bargaining in the UK Civil Service began with the award of different sized pay settlements to groups of workers who had previously been covered by the same negotiating machinery. During 1987 five separate agreements were implemented for clerical and secretarial grades, executive grades, senior Civil Servants (Grades 5-7), tax inspectors and scientists and engineers. Subsequently decentralisation of pay determination in the UK has proceeded in two main ways. First executive agencies were created² and second from April 1996 the principles governing pay in these agencies are to be extended to the rest of the civil service.
- 4.6 In April 1995 executive Agencies covered just over 50 per cent of all full-time staff in the civil service. These agencies are set key financial and quality of service targets, and have greater financial and management freedom than government departments. On the 1st April 1994 twenty three of these, covering the vast majority of civil servants employed in agencies assumed formal responsibility for the pay and conditions of their employees, and in 1994 conducted their own pay negotiations. In 1995 a further eight agencies joined the list of those who conducted their own pay negotiations. The largest of those which assumed delegated responsibility for pay were the Social Security Benefits Agency, Customs and Excise, the Employment Service and Inland Revenue. Full details of those who conducted their own pay negotiations in 1994 and 1995 are shown in Table 6 while Table 7 reveals that by March 1995 fifteen of the twenty three agencies recorded in Table 6 had introduced new pay and grading arrangements, for the civil servants they employed.

² More commonly known as 'Next Steps' Agencies after the report "Improving Management in Government: The Next Steps" which led to the establishment of these agencies. See Goldsworthy, D. (1991) *Setting Up Next Steps*, HMSO, London.

Table 6
Agencies Which Conducted Their Own Pay Negotiations

Agency	In 1994	No. of Employees
Social Security Benefits Agency		66,650
Social Security Contributions Agency		8,899
HM Land Registry		8,508
Customs and Excise		24,132
Defence Research Agency		11,248
Meteorological Office		2,194
Social Security Information Technology Services Agency		3,535
Royal Mint		972
Agricultural & Development Advisory Services		1,851
Valuation Office		4,531
Scottish Prison Service		4,233
Ordnance Survey		1,989
Employment Service		39,852
Health and Safety Executive		4,233
HM Prison Service		38,936
Inland Revenue		54,562
Driver & Vehicle Licensing Agency		3,779
Vehicle Inspectorate		1,479
Driving Standards Agency		1,679
HM Stationery Office		2,913
Fire Service College		258
Forensic Science Service		665
		<hr/>
		287,098
		<hr/>
		In 1995
Child Support Agency		5,984
Highways Agency		2,129
Historic Scotland		634
Intervention Board		
Meat Hygiene Service		813
PAYMASTER		600
Service Children Schools (North West Europe)		638
War Pensions Agency		1,296
		<hr/>
		299,192

Table 7
Agencies Which Had Introduced New Pay and Grading Arrangements by March 1995

Agency	No of Employees
Inland Revenue	54,562
Employment Service	39,852
Customs and Excise	24,132
HMSO	2,913
ADAS	1,851

Royal Mint	972
HM Land Registry	8,508
Meteorological Office	2,194
Information Technology Services Agency	3,535
Ordnance Survey	1,989
Health and Safety Executive	4,233
Driver and Vehicle Licensing Agency	3,779
QEII Conference Centre	60
Forensic Science Service	665
Scottish Prison Service	4,233
	153,478

4.7 The principles of New Step agencies are now to be extended throughout the Civil Service. From April 1996 the pay and grading of all middle and junior level civil servants, all those below grade 5, will be delegated to departments and the four national agreements that presently cover these staff will be scrapped.³ Departments, like agencies, will be free to construct pay and grading structures to fit the needs of their organisation and in consequence the common grading structure will disappear. Civil Servants pay and grading will now be determined by the agency or department for which they work.

Individualisation

4.8 The individualisation of pay was a prominent element of the central agreements negotiated for the different grades of civil servants in the early nineteen nineties, although those covering the Inland Revenue staff and the senior civil servants, grades 5-7 have since 1988, made provision for performance payments. However the most recent performance agreements which now cover all civil servants have two distinguishing features. First satisfactory performance is regarded as a necessary condition for the receipt of any general pay increase. Second the old incremental, service related pay scales have been replaced by pay spines, within which different pay bands are identified for each grade of civil servant and progress up the band is determined solely by performance. The performance of each civil servant is assessed at an annual appraisal.

The Implications of the Reforms for the Returns to Eurostat

Decentralisation

4.9 Under the present proposals for delegated pay and grading there will no longer be any central source of information on pay settlements or salary levels in the various agencies and government departments which constitute the UK Civil Service. It is possible that in the future, if HM Treasury decides to monitor in a systematic manner the outcome of negotiations in each agency and government department, such a central source may emerge. In the meantime, there is little alternative but to gather the required information on pay and employment from the agencies and departments themselves. It will clearly be impractical to approach all departments and agencies in the UK, a representative sample will therefore need to be constructed.

³ The Civil Service: Continuity and Change, (CM 2627), HMSO, 1994, pp 25-27.

- 4.10 The delegation of decisions over grading to each agency and department, means the end of the uniform grading structure that was until the last few years a prominent feature of the UK civil service. It will as a result not be possible to select a few key grades which cover most of the civil service nor to expect that changes in the pay of a few grades will necessarily be representative of changes in the real remuneration of the whole of the civil service. Each agency or department providing information to Eurostat will need to select those grades which most appropriately represent their own pay and grading structure, in line with the principles outlined by Eurostat in ART65/19, and supply pay and employment data for each of these.

Individualisation

- 4.11 The abolition of the traditional service, or experience, related incremental scales means that there are no longer identifiable maximum salaries for each grade of civil servant which all staff in that grade can expect to receive provided they achieve the required length of service. Changes in the grade maximum will from now on frequently result from changes in the number of points in the pay band where such changes reflect further modifications to the performance pay scheme. Thus the addition of points to the pay band may occur when it is considered desirable to afford the opportunity for those toward the top of the band to earn additional performance payments. However the addition of such points need have little immediate impact on the average salaries of employees paid within this band, because it may take some years before staff will be able to access all the new points. It follows that the change in salary calculated by a comparison of payments at the top point of any pay band in any two consecutive years may bear little relation to the average change in salaries experienced by that grade during the same period.
- 4.12 It can be claimed that there is no longer any automatic entitlement to an annual pay increase for UK civil servants and that all increases in salaries are conditional on performance. While this is strictly speaking correct, it is still the case that under these new arrangements the vast majority of UK civil servants continue to receive an annual increase in their pay because the performance of the vast majority has been judged to be at least 'satisfactory'. The specific indicator for the UK should capture such across the board increases.
- 4.13 In addition to any general pay increase, some civil servants will under the new arrangements enjoy additional pay progression as a result of their annual performance appraisal. In the past, under the old incremental pay scales, some civil servants also enjoyed additional pay progression as they progressed up the incremental scale. The difference between the old and the new arrangements in this respect is that under the old arrangements such pay progression was automatic for those below the maximum, while under the new arrangements this additional source of pay progression is discretionary, it depends on 'above average' performance. Under both the new and the old system this additional pay progression was and still is enjoyed by a minority of each grade (a majority of all the grades reported in the UK returns to Eurostat were on the maximum scale point) and it was ignored by the procedures for reporting salary changes developed by Eurostat. This additional source of pay progression has not been captured in the 1994 and 1995 UK returns to Eurostat nor is it proposed to

capture this source in the revised procedures for developing the specific indicator for the UK outlined in the following section.

- 4.14 The new central pay agreements, which introduced performance pay for all grades of civil servants included in the UK's returns to Eurostat, were negotiated in 1992 and implemented in the latter part of 1993 and early 1994. As a result of these changes in the nature of the central agreements HM Treasury, which has until now supplied the data to Eurostat, changed the nature of the data they reported in 1994 and 1995. In 1994 they reported the size of the overall pay settlement awarded under each of the main central agreements and spelt out in some detail the several separate elements that accounted for the overall settlement size. Thus for example the settlement for executive and support staff was reported to be worth 2.2 per cent on average. This 2.2 per cent resulted from
- a one-off non-consolidated non-pensionable payment of 1.6 per cent of basic pay for all staff who were in post on 1st April 1994;
 - an increase in the band minima of 1 step for the SGB 2 grade from 1 April 1994;
 - a 2.2 per cent increase in ADP and accountancy allowances from 1 April 1994;
 - a revised performance progression chart for 12 months from September 1994 which gave an additional step to all Box 1 and Box 2 performers. There were also larger payments for all Box 1, 2 and 3 performers towards the top of the band maxima;
 - four steps were added to the current band maxima for all grades from September 1994.
- 4.15 The settlement for grades 5-7 was reported to be worth 1.5 per cent and that for clerical and secretarial staff to be worth 2.2 per cent in the same year. Similar detail to that provided for the executive and support staff was supplied to support these statements. Eurostat then indexed the average salaries for each of the main grades of civil servants as reported in the previous year by the size of these settlements to obtain the average gross salary levels for each grade in 1994.
- 4.16 Where the calculation of the average size of settlement awarded to any grade is sufficiently detailed and the different elements of the award weighted by the number receiving each element, the settlement should measure accurately the change in the average level of remuneration of that grade as required for the method employed by Eurostat to construct the specific indicator. Indeed it will be superior in some respects to the previous procedures. Thus, for example, the 1994 return included an estimate of the impact on average salaries of the addition of four steps to the band maxima. The earlier procedures would have overstated the impact of such changes in the band maxima on average salaries. Where only the maximum and minimum points were being compared they would have weighted changes at the maximum by 0.5 although when several new points are being added to the top of a scale no staff in the grade would be likely to enjoy an immediate increase in salary of the magnitude of four points. Transitional arrangements would typically have been made to allow the steady, though automatic, progression of staff already on the maximum toward the new higher maximum only over a number of years.

- 4.18 The 1994 return contained an estimate of the impact on average salaries of changes in some allowances as required for construction of the specific indicator. It is possible that under the old procedure where such changes in allowances or the allowances themselves applied to a minority of staff they went unrecorded. There was no clear instruction to weight allowances by the proportion of the grade receiving them and where this proportion was a minority some respondents may have chosen to disregard them rather than substantially overstate the size of increase.
- 4.19 Therefore in several respects the 1994 return, and any other precisely calculated pay settlement, provides a more accurate measure of the change in the average salary of civil servants than does the procedure currently recommended by Eurostat. Clearly the accurate calculation of the impact of such changes on average salaries relies on sophisticated pay information systems. These now exist in all government departments and agencies in the UK and similar calculations to those reported above can therefore be made in the future.

UK Data on the Salaries of Civil Servants

- 4.20 The absence of any central source of information on either salaries or pay settlements in the UK civil service means that the required information will have to be gathered directly from the departments and agencies. It would be impractical to ask all agencies and departments to supply the required data and thus a sample will need to be constructed. The four largest government departments and four largest agencies have been approached. All have expressed their willingness to supply appropriate data to Eurostat if a relatively simple procedure can be developed. Those departments and agencies agreeing to participate when taken together employ approximately 56 per cent of all civil servants in the UK⁴. They are:

<i>Government Departments</i>	Staff
Ministry of Agriculture, Fisheries and Food	5,590
Ministry of Defence	83,736
Department for Education and Employment	6,500 app
Home Office	9,566
<i>Agencies</i>	
Customs and Excise	24,132
Inland Revenue	54,562
Employment Service Agency	39,852
Benefits Agency	66,650
Total	290,580

- 4.21 Each of these eight agencies and departments will allocate their employees, all employees, to the four categories A to D according to the specification contained in

⁴ Note from Tables 4 and 5 that after the Prison Service, the next largest agency employs 11,248 and the next largest department, the Department of Trade and Industry, employs 5,144. If these are included in the sample they would increase the share of UK civil servants covered by a mere 2 and 1 per cent respectively.

ART 65/19. Some may identify the specific grades in each of these categories, but these are anyway likely to change over the next few years as agencies and departments undertake regrading.

- 4.22 Each of the eight will supply Eurostat with details of the average size of settlement that has been implemented, for employees in each of the four categories A to D, over the twelve months preceding July 1st each year. The settlement details will take full account of any general increase, such as for example might be awarded to all satisfactory performers, and will also include the impact on average salary levels within each category of changes in the length of the pay bands, and the rate at which the average employee might be expected to progress within that band and changes in the average level of allowances and other additional payments. It will measure changes in the pay of employees in each category net of those elements of their pay which are equivalent to incremental progression and promotion. Some of the agencies and departments may provide these details at the level of the separate grades within each of categories A to D, but this is not really necessary.
- 4.23 In order that changes in net pay may be distinguished it will be necessary for each of the eight departments and agencies to supply Eurostat with details of the average gross salary level in each of categories A to D in either 1995 or 1996. (If the former the 1995 can be indexed by the settlement size to obtain the average salary level for 1996). Note that because marital status and dependent children have no effect on gross earnings no distinction between such household types will be made in the eight returns.
- 4.24 Each of the eight will also supply Eurostat with details of the number of permanent employees in each of categories A to D.
- 4.25 The calculation of net salaries can be achieved by taking the tax and national insurance schedules for the UK each year, identifying the different tax and national insurance liability of employees in each pay range and deducting the appropriate amount from the gross salary in each of the four categories A to D. The same tax and national insurance schedules and the same procedures for calculating the net of tax salaries will be appropriate for each one of the eight departments and agencies. It would therefore be most appropriate if Eurostat developed a routine whereby the calculations could be performed by Eurostat on receipt of the appropriate information.
- 4.26 Eurostat anyway calculates changes in real gross and net pay using data on the change in retail prices obtained from the statistical authorities in the UK. Eurostat could also make arrangements to obtain, on an annual basis, details of the tax and national insurance schedules from the taxation authorities.
- 4.27 The procedure recommended above minimises the burden on the agencies and departments which have agreed to supply the necessary data to inform the construction of the specific indicator for the UK. They will also inform Eurostat of changes in standard hours of work, holiday, pension and sick pay leave entitlements where it is made clear for what purpose these will be used. Changes in these other conditions of employment are increasingly likely under devolved pay bargaining and requests for information on these aspects will need to be kept simple.
- 4.28 The pay of senior civil servants, grades 2-5 seems likely to be centrally determined. Although the system has yet to be finally agreed it seems clear that information on the size of pay increases arising under these arrangements will be collated by the Office of Public Service (OPS) within the Cabinet Office. At this early stage they appear to be

willing to provide the information Eurostat will need although it is impossible to say just what form this will take. An alternative is to seek to obtain the appropriate data for these employees directly from the eight departments and agencies.

Conclusions

- 4.29 The decentralisation of pay bargaining in the UK public sector means that the arrangements for supplying data for the construction of the specific indicator will be more complicated than in the past. But a practical solution has been identified and although this still requires some further 'fine tuning' it should allow Eurostat to adhere to the principles underpinning the construction of the specific indicator.
- 4.30 As a next step Eurostat will need to enter into a dialogue with those responsible for pay and grading in the eight organisations. A questionnaire will need to be devised and a pilot study, a 'dry run', should be undertaken, before the system begins operation in 1996. Eurostat may also wish to consider whether it would be more efficient to have the data from the eight organisations collected and collated in the UK by some organisation contracted for this purpose.

Appendix

Meetings and Discussions have been held with the following individuals in conjunction with this project

MEETINGS HELD WITH

Government Officials

Sweden

Lena Westin, *Ministry of Finance*, Stockholm
 Dr. Nils-Henrik Schager, *Arbetsgivarverket*, Stockholm
 Mr. Anders Emlund, *Statistics Sweden*, Stockholm
 Dr. Jan Magnell, *Statistics Sweden*, Stockholm
 Ms. L. Johansson, *Statistics Sweden*, Stockholm
 Birgitta Selander, *Statistics Sweden*, Orebro
 Peter Swensson, *Statistics Sweden*, Orebro
 Jack Hansson, *Statistics Sweden*.

UK

Mr. Richard Harris, Pay 1, *HM Treasury*
 Mr. Geoff Fogg, Pay 1, *HM Treasury*
 Mr. Peter Dennison, Pay 1, *HM Treasury*

Trade Unions

UK

Mr. Ken Jones, Head of Research NUCPS

Sweden

Statstjänstemannaförbundet (ST) [The Union of Civil Servants]
 Ilkka Pärssinen, International Secretary
 Lena Moberg-Lindwall, Head of Negotiating Unit
 Johan Tengblad, Head of Negotiations
 Peter Stiener, Research

Agencies

UK

Mr. R. MacAfee, *Customs and Excise*
 Mr. K. Nurse, *Customs and Excise*
 Mr. M. Isaac, *Benefits Agency*
 Ms J. Collinson, *Benefits Agency*

Other Consultants

Dr. Dominique Meurs, University Pantheon-Assas, (Paris II)
 Professor Claudio Lucifora, University del Sacro Cuore de Milano

FURTHER CORRESPONDENCE/CONTACT WITH

Agencies

UK

Malcolm Rennard, *Employment Service, Pay Strategy Unit*
 Karen French, *Employment Service, Pay Strategy Unit*
 Stuart Legg, *Home Office*
 Vivian Lacey, *Employment Department*
 Malcolm Lingwood, *Ministry of Defence*
 Timothy Surch, *Ministry of Defence*
 Richard Moore, *Inland Revenue*, Head of Pay Policy Unit
 Joanna Fullick, *Agriculture, Fisheries & Food*, Pay Strategy Unit

Government departments

UK

Jackie Ross, OPS
David Caplan, CSO

Sweden

Margareta Hammerberg, Ministry of Finance

Trade Unions

Paulette Keating, NUCPS

**ART. 65: Examination of National Systems of
Remunerating Civil Servants: the Case of France and
Italy**

Claudio Lucifora
Università Cattolica del "Sacro Cuore" di Milano

1. Introduction

2. General Remarks

2.1. The divergence between the Specific and the Control Indicator

- *Statistical differences: sectoral aggregation and pay definition*
- *Conceptual differences: pay levels versus career profiles*

3. The case of France

3.1. Career profiles

3.2. Pay determination

3.3. Recent evolution of pay in Central Administration and future prospects

4. The case of Italy

4.1. Career profiles

4.2. Pay determination

4.3. Recent evolution of pay in Central Administration and future prospects

5. Proposal for amendments

5.1. How to interpret the principle of "parallelism"

5.2. How to deal with institutional change and institutional differences

5.3. How to amend the Specific and Control Indicators

- *General issues*
- *Specific points*

5.4. Alternative sources of information for remuneration data

6. Concluding Remarks

References

Appendix

1. Introduction

The purpose of this study is to examine the conditions governing the adjustment of the remunerations of officials and other servants of the European Community. When a Single Council and a Single Commission of the European Communities were established, it was initially decided to introduce a common method for the adjustment of the purchasing power of salaries for civil servants and other officials of the Communities. This procedure was intended, firstly, to favour and maintain co-operation between European institutions and their officials; secondly, to avoid any disputes on salary adjustments. In 1991 a new agreement was reached setting the rules for the period 1991-2001, with a possible (marginal) revision after five years. The annexation of new Member States in the Communities and some major institutional changes experienced by several countries in the organisation of the public sector, call for a reflection on the methodology and principles underlying the current procedure of salary adjustment.

The main principle retained in the methodology currently in use is that of "parallelism", according to which any change (both upwards and downwards) in the purchasing power of salaries of national central government civil servants should translate into an equivalent change for officials of the European Communities (EC). The implementation of the principle of "parallelism" consists in the calculation - by the Statistical Office of the EC - of a Specific Indicator (SI), for each member state, reflecting changes in the real purchasing power of salaries during the reference period. Different types of SI are calculated (by occupational category, marital status, etc.) both in gross and net terms (after deduction of direct taxation). Finally, to determine the overall change of remunerations for all Member States together, the results obtained by the IS for each country are weighted by the total wage-bill of central government civil servants (as shown in National Account statistics).

In order to assess the ability of the IS to keep track of the actual evolution of civil servants pay and to check the statistical accuracy of the data used, the EC Statistical Office also computes a so-called Control Indicator (CI) in the form of per capita total wage-bill in Central Administration (as defined in National Accounts). The two indicators (IS and CI) are then compared by the Statistical Office and - under the presumption that their behaviour should be similar (at least in the long run) - some considerations as to why they differ have to be drawn. In particular, the EC Statistical Office has the obligation to report and, eventually, explain the existence of a different evolution over time in the behaviour of the two indicators. Hence, it can be concluded that the monitoring of the evolution of national civil service (real) purchasing power of salaries - as to accomplish the principle of "parallelism" among Member States - is done essentially using the methodology described above and by comparing the Specific and the Control Indicator.

In a number of countries, in the last decade (1985-1995), the performance of the Specific and the Control Indicator have shown an increasing tendency to diverge, with the former showing a flatter profile and the latter shooting up quite substantially. Since there is no reason *a priori* of why the Control Indicator should necessarily exhibit a faster dynamic than the Specific Indicator, the simple observation that this occurs in a similar way and at the same time in different countries must tell us something (for this evidence see, Figure 1). In particular, there must be some systematic factors that have led the two indicators to diverge in such a way. Among the countries which have shown an increasing divergence between the SI and the CI

we find: France, Ireland, Italy, the United Kingdom and to a lesser extent Belgium and Portugal. This evidence has generated preoccupation among EC (and other Co-ordinated Organisations) civil servants whose purchasing power (of salaries) is attached to the performance of the SI. In this respect, it might be useful to assess whether the divergence observed has to be mainly ascribed to a "bad" performance of the SI which (under particular circumstances) is not well suited to follow closely the actual changes of civil servant remunerations, or if it has to be interpreted in the light of the intrinsic differences which underlie the composition and the calculation of the two indicators. If the first hypothesis proves to be correct then it might be useful to amend the SI so as to provide a better description of the evolution of civil servant purchasing power; alternatively, if the second hypothesis is true then a finer definition for the CI might be desirable.

A number of studies have already analysed - for some countries - the observed divergence between the two indicators (i.e. SI and CI) shedding light on various factors which might have contributed to their different behaviour. The main conclusion that can be drawn from these studies is that even if we can explain part of the divergence between the two indicators, an unexplained residual still exists.

This study intends to contribute to this line of research - with particular reference to the recent experience of France and Italy - both providing some insights on the potential reasons for the divergence of the SI and CI (a parallel study will focus more closely on this aspect), and also suggesting possible amendments to the methodology of calculation currently in use. The structure of the study is as follows. In section two some general remarks are set out as to how the two indicators (SI and CI) differ (both statistically and conceptually) and why they might diverge. Also, the role of the institutional differences across countries is discussed, and the likely impact it might have on the behaviour of the two indicators analysed. Section three and four describe the recent experience, with respect to the remuneration of central government civil servants, and future prospects for France and Italy, respectively. The concept of "parallelism" and the notion of change in purchasing power are presented and the main issues discussed. Some proposals for different ways of revising the methodology for the calculation of the Specific and the Control Indicator are set out in section five. Section six contains some concluding remarks.

2. General Remarks

In the analysis of the evolution of the remunerations for civil servants, it is important to note that the role and the size of the public sector differ significantly both across countries and over time. In some countries, for example, public sector pay policy is considered as an important macroeconomic instrument for the success of incomes policies; further to this, the State might use public employment as a policy instrument. In particular, countries faced with high unemployment, might have a significant role to play in creating employment opportunities.

In the 80's most European countries experienced a sharp increase in public sector spending, part of which was imputable to both increasing employment (i.e. net job creation was essentially imputable to the expansion of the public sector) and raising pay - as well as compensation costs. In recent years, however, the need to exercise control over public expenditure has led many countries to modify their pay systems or introduce new management procedures for public sector employees. Some countries

have implemented programs to cut public employment, moderate pay growth and decentralise the pay-setting process. Other countries have implemented a pay determination system in the context of devolved management of running-cost budgets to single Agencies or Departments. In general these reforms have been introduced with the intention of reducing the public sector pay bill and to improve the efficiency of public sector spending.

Therefore, when considering the evolution of the purchasing power of civil servants across countries it should not be forgotten the fact that there is a great deal of heterogeneity in the structure and the behaviour of the public sector. In the present study the focus of analysis is confined to national Central Administrations (CA), which represent the "core" of the State and thus can be reasonably expected to be more homogeneous than the public sector as a whole. However, it should be stressed that major differences exist even comparing the composition of the CA, as some countries include in the CA sectors like Education or Health (or both) while many others don't.

Also, the pay determination system in force in the public sector in each country may significantly influence the evolution of earnings for public employees. In countries where centralised collective bargaining sets the level of pay for civil servants, the evolution might heavily depend on the scheduling of collective negotiations, union strength, etc.; alternatively, in countries where a highly decentralised system is in force and trade unions do not have a significant role in pay determination, the actual evolution might simply follow inflation or use private sector wages (on a local basis) as the reference.

In the private sector, the working of the market mechanism plays an important role in determining the structure and the evolution of pay. Conversely, when considering pay determination in the public sector the reference to the market mechanism is rather loose and institutional factors might play a central role. The view conventionally held describes pay setting in the public sector as being characterised by an extremely rigid structure, by the lack of effort enhancing incentives and an almost automatic progression of earnings with accumulated seniority. However, for the purposes of the present study, adhering to this picture, with the purpose of providing an adequate description of the pay setting process for civil servants, could prove rather misleading for two main reasons: first, in general, the actual evolution of earnings is rather different from what can be inferred from the analysis of simple pay scales, as the joint effects of legislative intervention, collective bargaining and career advancements have a pervasive and a significant impact on pay; second, the situation, as already mentioned above, is changing rapidly in most countries and the constraints imposed by the market mechanism are starting to become binding also for public sector employees.

The purpose of this overview was to underline the existence of a great deal of heterogeneity in both the structure and the practice of pay and employment determination in the public sector. It might also suggest that particular care is needed in the analysis of the different factors that contribute to the evolution of civil servants earnings. We devote the next section to the analysis of some of these factors and the role they might play in the divergence between the SI and the CI.

2.1. The divergence between the Specific and the Control Indicator

In order to compare the performance of the Specific and the Control Indicator it is necessary first to identify the main features which might contribute to their

different evolution¹. These features can be grouped so as to distinguish whether the observed differences have to be imputed to either 'conceptual differences' - i.e. due to their different intrinsic nature - or to 'statistical differences' - i.e. differences in the type of data used. Since most of the studies which have already analysed the differences between the two indicators have concentrated on the statistical aspects rather than focusing on the different economic concepts lying behind them, we shall briefly review the main findings concerned with the statistical incomparability and then discuss the differences in their nature.

- Statistical differences: sectoral aggregation and pay definition

One important reason why the SI and the CI may not be directly comparable lies in what we have defined 'statistical difference'. That is the data which is used in the calculation of the indicators differ substantially both in the definition of the pay variable - which is used as a reference for each one of the indicators - and in the underlying population considered (i.e. for the SI and the CI respectively). As far as the former is concerned it should be noted that the SI indicator is based on gross remunerations (i.e. gross here refers to the inclusion of direct taxation and social charges paid by the employee), while the CI is mainly a rough proxy for average labour costs paid by the State to civil servants employed in the Central Administration (i.e. as defined in National Accounts and inclusive of various types of social charges paid by the employer). The two aggregates usually differ a lot both in the levels and in the evolution².

A second important element of 'statistical' incomparability is concerned with the population of reference which is used in the calculation of the SI and the CI respectively. In the first case (i.e. the SI) the sample is arbitrarily selected by National officials as to be representative of 75 per cent of the total population of Central Government (restricted to those resident in metropolitan areas and excluding various types of occupations); while in the second case (i.e. the CI) the sample refers to the definition of Central Government retained in National Accounts. The difference between the two sample populations may be striking both in terms of occupational and sectoral composition³.

Further differences in the 'statistical' contents of the two indicators may concern:

- (i) the number of hours worked;
- (ii) overtime wage premia and pay for shift-work;
- (iii) the proportion of part-time workers;
- (iv) the extent of temporary contracts;
- (v) paid leave of absence, etc.

Most of the problems of statistical incomparability have received careful attention in recent years and various analyses concerning the effects of these 'statistical

¹ Since, the standard methodology used by Eurostat to compute the SI is presented and discussed in several official documents, it shall not be discussed in detail here. Interested readers may refer to the following document: Eurostat, Specific Indicator: methodology and definition, Art 65/19, February 1994.

² Note that in Italy, for example, the average difference between net pay and total labour cost may reach 100 per cent. Also, in recent years, the amount of social charges in total compensation paid by the employer has proportionally increased both in Italy and in France.

³ Note that in France, for example, the sample used to compute the SI is approximately equal to 3.7 per cent of the sample used as reference in National Accounts.

differences' on the behaviour of the SI and the CI are now available (Ferrari, 1992; Eurostat-B1, 1994 (Art.65/17, 65/18)). Firstly, in order to deal with some of the issues mentioned above Eurostat has conducted a survey among Member States gathering information on several dimensions of the employment relationship, such as: composition of pay, hours of work, social charges, part-time, etc. Secondly, different types of "adjusted" Control Indicators (ACI) have been calculated as to account for some of the major 'statistical' differences which exists with respect to the SI, namely: (a) correcting National Accounts data for the presence of social charges paid by the employer (ACI1), (b) accounting for the differences in terms of occupational and sectoral composition of the sample populations (ACI2).

The main results obtained by the studies which have tried to explain the increasing divergence between the SI and the CI - observed in several countries in recent years - focusing on the sources of incomparability originating from 'statistical' aspects can be summarised as follows: first, there seems to be no significant difference in the evolution of the CI and the ACI1 for most of the period in most countries; second, if a finer definition of Central Administration is derived by National Accounts (ACI2), so as to match more closely the definition retained in the calculation of the SI, still no valuable differences emerge between the evolution of the standard CI and the evolution of the Adjusted Control Indicator (ACI2)⁴. (see Figure 2 for the empirical evidence)

Hence, if the 'statistical' aspects concerning the definition of the SI and the CI are not helpful in explaining a significant part of the accumulated and increasing divergence between the two standard indicators (i.e. SI and CI), there is scope to investigate further the conceptual differences that might exist among them.

- Conceptual differences: pay levels versus career profiles

The analysis of the evolution of earnings involves various aspects. On the one hand, remunerations increase to keep up with the general rise in price level, such as to maintain the real purchasing power of earnings. On the other hand, workers during their lifetime career accumulate seniority and are promoted to higher positions in the occupational hierarchy, both of which are usually associated with higher pay levels. Other important factors which can further contribute to the evolution of earnings are connected to the fluctuations induced by the business cycle, the presence and the power of trade unions in collective negotiations, macroeconomic policy objectives and, last but not least, legislative intervention directed to the improvement of working conditions (pecuniary and non-pecuniary).

Now, if we consider the lifetime career of a 'stylised' individual employed in the Central Administration of a Member State - bearing in mind all the *caveats* previously mentioned as to the

⁴ For an application to the case of Italy, see Ferrari . 1992.

Table 1 - Taxonomy of factors contributing to the evolution of pay

(A) As far as **total pay** is concerned the year-to-year change will depend - *ceteris paribus* - on the evolution of the different wage components:

(1) standard rates of pay:

- set either by the government or negotiated by the unions, these pay levels are usually attached to the occupational grade of the worker and are adjusted over time to maintain the real purchasing power of earnings - i.e. reference is made to the rate of inflation (actual, forecasted, programmed. etc.)

(2) wage premia, indemnities, overtime and shift-work pay, etc.

- set either by the government or negotiated by the unions, these might include seniority wage premia, other fixed premia (i.e. not strictly linked to the actual performance of the individual), several indemnities for particular tasks required by the occupational position, overtime and shift-work pay rates

(3) performance related pay

- criteria and conditions for the distribution of these pay premia might be set either directly by the government or negotiated by the unions. However, these elements of pay should include only the true discretionary payment made by managers, for exceptional performance, to a limited number of individuals.

(B) As far as **the occupational status** is concerned the year-to-year change in pay will also depend - *ceteris paribus* - on the advancement made by the worker in the occupational hierarchy:

(4) generalised revaluation of occupational positions:

- set either by the government or negotiated by the unions, the practice of generalised revaluation of occupational positions has been used very often in past years as a mean of raising the occupational status of a particular group of workers (but more than that, as a mean of raising their pay levels). Usually it involves a shifting up of the grade-category-etc. in which certain groups of workers used to be classified.

(5) specific promotion of individual workers:

- These should include only the true advancement made by individuals as a result of particular skills or specific merits accumulated in previous periods. In most countries, this type of advancement in grade-category-etc. can only be made through public open competitions and not by discretionary decisions made by managers.

differences existing across countries in pay determination practices - the evolution of his total gross earnings between period t and $t-1$ will depend on the role played by different factors: for example, the change occurred both in total compensation and in the occupational status. For the purposes of the present analysis in table 1 we propose a taxonomy of the various factors that might contribute to the actual evolution of pay.

There are some interesting questions emerging from table 1 that require some considerations. In the light of the above taxonomy, explicitly designed for the analysis of the evolution of earnings, it might be interesting to investigate in which way the SI and the CI differ conceptually, and also which are the factors that mainly contribute to the evolution of the two indicators. Furthermore, and more interesting, it should be discussed which elements of pay and occupational status have to be considered in the calculation of the SI so as to satisfy the principle of "parallelism", that is «...the principle of parallel development ensures that the same consideration is given to the economic and social situation as in Member States' decisions regarding salary adjustments of national civil servants» (*ART. 65 Staff Regulations of Officials of the European Communities* - amended in 1991).

In what follows we shall briefly sketch the general issues that are at stake, leaving to the following sections - after the presentation of the French and the Italian case - a more detailed discussion of the topics and some propositions for possible amendments.

The different nature of the SI and the CI can be immediately evaluated simply looking at table 1. As an example consider the following points:

(i) It is important to note that since the SI is a 'fixed weight' indicator (a sort of Laspeyres index) all factors concerned with section (B) of table 1 do not enter in the calculation of the year-to-year salary changes.

(ii) As far as the calculation of the SI is concerned, the main components of total compensation (if not the only ones) which are taken into account in order to measure the year-to-year changes in salaries of EC officials are those included in point (1). In recent years, for some countries, a rough estimate of some of the elements contained in (2) has been added to standard rates.

(iii) Focusing on the CI, it is clear that all the factors mentioned in table 1, both in section (A) and (B), do contribute significantly to the evolution of the CI. Furthermore, as previously mentioned, the CI also includes social charges paid by the employer (both for health, pensions, etc. contributions). Hence the CI appears more as an indicator of the evolution of labour costs rather than remunerations.

We want to conclude this section with few remarks.

First, there should be no doubts that the SI and the CI are significantly different not only for 'statistical' reasons but also 'conceptually'. They measure different components of pay and labour cost which in general can have - and have had in most countries - a very different dynamics. Indeed, their evolution could be similar only under very restrictive conditions which are not normally met in rapidly changing or turbulent economies⁵.

⁵ Note that only in an ideal world where: social charges evolve as a fix proportion of total compensation, where the different premia are costantly growing over time, where the effects of turnover are 'neutral' on average pay and where unions do not bargain for grade advances as well as pay rise, the two (SI and CI) indicator would indeed exhibit the same dynamics.

Second, it might not be surprising to find out that in recent years, on average, following the persistent deflationary trend which has characterised most European economies the evolution of the SI (with fixed weights) has been constant or slightly declining in real terms (see Figure 3 for the empirical evidence).

Third, it seems that in order to satisfy the criterium of 'parallelism' - stated in ART.65 (and further amendments) - the simple reference to some of the elements of pay, as it is done in the calculation of the SI (see points (A) 1 and 2, in table 1), might not be sufficient to fully describe the actual evolution of earnings for EC civil servants. It should be stressed that the SI is certainly appropriate to capture (though with some lags) the evolution of pay experienced by each country in adjusting wage levels (of each given category-grade) to the changing rate of inflation, however in most cases this might be only a very small part of the evolution of pay of a worker during his lifetime career. In particular, in countries where pay setting in the public sector is used as a macroeconomic instrument for the success of incomes policies and, more generally, for overall wage moderation, the evolution of pay might take different forms. A clear example of these practices is the payment to large groups of workers of special premia or indemnities and the generalised revaluation of occupational positions, both used as a substitute for increases in standard rates of pay. Although this picture cannot be generalised to all European countries, it certainly mirrors closely enough the experience of the two countries under investigation.

In sums, before analysing in more detail the recent experience of France and Italy, we can draw some conclusions:

(i) If the interpretation which should be given to ART.65 in terms of salary adjustment is rather restrictive - i.e. so as to concern only changes in standard rates of pay - then the SI can be considered an adequate indicator for adjusting (partially) remunerations to the rate of inflation;

(ii) If, alternatively, the interpretation has to be considered in a broader sense, that is so as to consider the actual changes in the real purchasing power of earnings, as previously described, then neither of the two indicator SI or CI is really appropriate. In this case, the 'true' evolution is likely to fall in between those captured by the above indicators - i.e. some convex combination of the two could be a close proxy -;

(iii) In order to avoid ambiguities, it should be clear from the outset is that neither true merit payments (for exceptional individual performance, see point (A) 3 in table 1), nor specific promotions of individual workers (see point (B) 5 in table 1) should ever enter in the calculation of the SI. In other words, only 'general' measures (even if 'general' refers to a given occupational category-grade) taken to improve the levels of pay, either through additional components of pay or through a revision of the job classification system, should be accounted for in the calculation of the SI. Note, however, that individual performance related pay will always affect the evolution of the CI, and thus contribute to its different dynamics.

Since the institutional context and the rules governing both the pay determination process and career advancement in the public sector play a crucial role in the evolution of pay in each country, in the next paragraphs we shall describe the French and Italian cases.

3. The case of France

The pay determination process in the public sector in France follows rules that differs substantially from those operating in the private sector. On the one hand, the salary of each employee (in particular considering the standard rates of pay) is determined very precisely by means of fix set of statutory rules. On the other hand, the adjustment of pay levels is done through the revaluation of the whole pay structure applicable to all civil servants. Traditionally, in the adjustment process reference to the inflation rate, though not explicitly stated, was considered the main objective of the wage determination process. The growth of public spending coupled with high inflation rates, experienced in France in the 80's, pushed the Government to adopt a radically different attitude towards salary-price adjustments: namely, in the 90's, the de-indexation of salaries *vis-à-vis* prices became the main objective. Trade Unions play an important role in wage determination, as collective negotiations take place each year and set the guidelines for salary adjustments. Note that in France, even if the Government is not obliged to reach an agreement with the Unions (i.e. as it has been the case in some years), in practice the influence of Unions on pay is very relevant.

In the following sections, we shall try to keep separate (as much as possible) the effects on the overall evolution of pay, which are due to changes in the occupational structure as opposed to those due to changes in pay determination issues.

3.1. Career profiles

The French statute for civil servants fixes principles, rights and obligations for career advancement of all employees employed in the public sector. The main points are: the requirement of public competitions for all recruitments in each grade-category (for permanent positions, *titulaires*) and existence of a career path that allows workers, according to their ability, to progress in the occupational hierarchy. There are four main categories in which workers are classed (A, B, C, D) depending on the educational level attained and the accumulated experience. The career profile is precisely defined by rather rigid rules that set the number of grades, the average time necessary to move from one position to another, and the rules governing career advancements. Each grade is characterised by a point index, the whole structure of indices defines the grid of possible positions and thereby uniquely determines the pay structure. The latter point is very important as it implies that any occupational change will automatically modify the 'value' attributed to the job and thereby to the associated salary.

3.2. Pay determination

The make up of pay for French public sector employees is rather complex, as the various components follow different rules. The main components are:

- (i) *traitement de base* - standard rate of pay, which follows a hierarchical point index structure
- (ii) *indemnité de résidence* - additional component of pay, paid according to local living standards
- (iii) *supplément familial de traitement* - paid to families according to the N. of children
- (iv) *primes* - pay premia, usually paid to group of workers or, less frequently, to individual workers

for exceptional performance.

- (v) *indemnités* - indemnities, usually attached to a certain occupation in reason of particularly difficult tasks, responsibilities, etc.

Since 1989, it has become more difficult to follow the evolution of pay in the public sector as the number of *ad hoc* measures introduced to the benefit of a particular occupational category-grade have increased and have become more complex. Furthermore, the proportion of public sector employees concerned by these *ad hoc* measures has progressively increased, leading to a significant rise in the relevance of the 'additional' components of pay over total compensation (CERC, 1989). These 'additional' components of pay can differ significantly between bodies of the Central Administration.

In sum, the remuneration of a French civil servant employed in the Central Administration can change as a consequences of various factors, we shall consider some of them and see how the French institutional setting compares with the general taxonomy set out in table 1:

(1) The pay level changes following the revaluation of the point index attached to the position (grade-category) or due to the granting of additional points which add up to the current position (i.e these measures can be uniformly distributed or be very differentiated across occupations).

(2) The salary level changes following the introduction or the increase of pay premia. These might be either temporary (i.e. the lump sum growth premium granted to all civil servants in 1989) or permanent (i.e. revaluation of certain indemnities for performing specific tasks). Pay premia and the various type of indemnities can vary a lot across ministries.

(3) The salary level can change due to general measures taken to modify the career progression of all public sector employees, as well as of particular group of workers. These interventions imply a general re-definition of the point index occupational grid (with respect to the previous period) and translate directly onto the pay structure. From 1976 up until 1989 these measures were rather exceptional (i.e. after the "pause catégorielle" declared by R. Barre) but after that date they have been used more frequently as a mean to change pay relativities across occupations or in order to protect low paid workers.

(4) Finally, the pay level can change due to the advancement of the individual in the occupational ladder. For all openings a public competition is announced and only successful candidates obtain the post. In this case, the change in pay is simply due to the application of the point index associated to the new position.

It should be stressed that, with the only exception of the factors influencing pay changes in point (4) and some of point (2), all the measures are subject to consultations with the unions. As previously discussed, these interventions could, in principle, be determined unilaterally by the Government, leaving to the practice of concertation with the unions only the role of fixing a point of reference. In practice, the measures taken often embody the outcome of negotiations.

3.2. Recent evolution of pay in Central administration and future prospects

For the purposes of the present analysis, the evolution of pay in the public sector in France can be roughly divided into different periods which are characterised either by different institutional rules or by different macroeconomic conditions. In the beginning of the 80's high inflation rates determined a change in the objectives of Government's economic policy. The fight against inflation became the target and the de-indexation of salaries, of public sector employees, *vis-à-vis* prices became the main instrument chosen to implement that policy. In particular two measures introduced after 1983 are of particular relevance: first, the adjustment of salaries is done with respect to some forecasted change in prices with a possible catching-up at the end of the year; second, the traditional "comparison in levels" mechanism used to evaluate the change in salaries for civil servants, is being substituted by a "comparison in volumes" (i.e. total wage-bill)⁶.

Therefore, whilst before 1983 salary negotiations were finalised towards a strict maintenance of the purchasing power of earnings, after that date reference to the growth of the wage-bill did not guarantee anymore that earnings levels would be preserved in real terms⁷. The basic idea is that since the notion of wage-bill change includes the effects of the career advancements, the maintenance of real purchasing power is granted (on average) only to the individuals who progress in the occupational ladder. In other words, it has to be emphasised that the pay rise effects generated by career advancement are determinant in the maintenance of the purchasing power of earnings (Meurs, 1991).

More recently that is after 1989, as already discussed, the composition of pay has gone through a significant change with respect to previous periods. While, in the early 80's the structure of the pay package for public sector employees was relatively stable and the various components (standard rates, premia, indemnities, etc.) were evolving at the same pace of standard rates of pay, in the late 80's and in the 90's the evolution of the different components has become rather more complex. In particular, the weight of the 'additional' components of pay, as opposed to standard rates of pay, have progressively gained in importance, up to the point that the evolution of salaries of civil servants cannot be described anymore by an index of the changes in standard rates (CERC, 1991)⁸. The average rate for the premia, in 1992, was 18 percent of net pay (12 percent of gross pay); however, for more than 20 percent of civil servants (mainly ministries) premia may represent over 30 percent of gross salary. In particular, the evolution of premia after 1989 has represented the largest contribution to the increase in gross pay: between 1991-1993 the average annual percentage increase has been of 9.5 (CERC, 1992).

⁶ In the case of "comparison in levels" the mechanism consists in comparing at different point in time (for a given structure) the changes in salaries and prices. Conversely, when the "comparison in volumes" is used the change in the total wage-bill is compared with the change in prices. Obviously the latter does not involve any direct reference to the maintainance of the purchasing power of earnings.

⁷ In particular, given that this was a period of employment cuts in the French public sector, the reduced turnover determines an autonomous component of growth in the total wage-bill as the average age increases and, with no inflows, the whole occupational structure shifts up over time.

⁸ One example of index which considers only the basic components of pay and is calculated at a fixed structure (both for occupations and seniority) is the 'indice INSEE des traitements'. See Appendix 3 for an example.

In the same period, several measures have been taken in order to modify the career progression of public sector employees. These interventions, before 1989 were rather exceptional but after since they have become more frequent as a mean to change pay relativities across occupations and to protect low paid workers (see Figure 4). On average, between 1990-1993, the overall impact of specific occupational measures and career progression (the so called positive 'GVT') of civil servants has been approximately of 2.5 percent.

In the light of the recent French experience, several conclusions can be drawn at this point as to the descriptive power of the SI for monitoring earnings change:

- (i) the de-indexation process of salaries and the change in the reference method, from 'levels' to 'volumes', for wage negotiations has meant that there is no direct protection of purchasing power of earnings levels for any given grade-category of the public sector occupational structure;
- (ii) the maintenance of the purchasing power of earnings has been obtained also through pay rise due to career advancement. It is important to note that this is probably linked to the fact that the French statute for civil servants is designed so as to grant 'a career' to most workers. In the absence of career (or seniority) advancements there might be some officials suffering real earnings losses;
- (iii) the composition of pay has changed. The evolution of the different components has become rather more complex and the 'additional' components of pay (premia, indemnities) have progressively become more important. Hence, the evolution of salaries of civil servants cannot be simply described by an index of the changes in standard rates;
- (iv) the impact on the age structure, due to the slower turnover induced by the cut in public sector employment, and the special measures taken to modify the career progression of particular groups of public sector employees have significantly influenced the evolution of pay. The former has meant a faster growth for the total wage-bill, the latter has given the impression that the maintenance of the purchasing power of pay is not achieved simply by the revaluation of the point index but also with general interventions on the classification of occupations.

The above discussion can be useful to shed light, for the specific case of France, both on some of the reasons that can explain the divergence between the CI and the SI, and on the potential inadequacies of the SI to satisfactorily describe the actual evolution of earnings. The latter involves two elements: the importance of premia and indemnities on the evolution of salaries, and the role of job classification as to protect the real purchasing power of salaries. We shall return these points to next sections.

4. The case of Italy

In Italy the set of rules that governs the status of civil servants and the practice of pay determination is the result of a series of legislative interventions which proliferated over time and contributed to the complexity of public sector human resource management. This situation, in certain cases, made it particularly difficult to distinguish between the public and private status of public sector employees. The so-

called "Legge Quadro" (L.n.93/1983) marks the first significant effort to reorganise both pay determination procedures and the occupational classification of workers. Only very recently ("Accordo sul costo del lavoro", D.L.n.29/1993), both the status and the practices of pay determination have been deeply reformed and most standard private sector labour market practices have been introduced in the public sector.

The growth of public spending and the huge debt accumulated over the years have influenced most of the measures taken, particularly in the last decade, by the Italian Government with respect to the evolution of pay for civil servants. However, only starting with the beginning of the 90's the measures taken proved to be really effective in reducing the total wage-bill of the public sector.

4.1. Career profiles

The system regulating the classification of occupations and the career advancement for civil servants is regulated by the "Legge Quadro". The main points are: the requirement of public competitions for all recruitments and the existence of 8 main levels (grade category) in which workers can be classified according to the educational level attained and accumulated experience. Workers can advance in the hierarchical ladder by seniority and public competition. In general, a proportion between 30 to 50 percent of new openings is reserved to workers which have accumulated at least 5 years of seniority in the level immediately below. The occupational structure (8-11 levels according to the sector) is associated to a range of pay levels (*minimo retributivo* - basic pay) which are set through collective negotiations. A complete revision of the job classification system is currently under the study of a Parliamentary commission.

4.2. Pay determination

In the present situation, public sector pay determination in Italy is characterised by collective negotiations which take place between the unions and an independent Agency (ARAN - Agenzia per la rappresentanza sindacale nel pubblico impiego). Several levels of bargaining exists which may take place nationally or be decentralised: inter-sectoral and sectoral (i.e. as defined by the "Legge quadro") are negotiated at national level while further agreements can be negotiated at the level of single Agencies (i.e. single Ministries, local Government). The main level for negotiations is the national level and involves 8 sectors of the State (both central and local). The salaries of senior executives and managers (i.e. *dirigenti*), magistrates and University professors are not subject to negotiations, their pay levels are directly fixed by the Parliament. The length of contracts used to be three years (as it was in the private sector), however after the 1993 reform its length is two years for the remuneration aspects and four years for the normative aspects.

Before the 90's a system of indexation of salaries over price increases was in force, however it was reformed several times during the 80's and definitively abolished in 1992-93. Now the protection of the purchasing power of earnings is pursued through collective negotiations with reference to the Government 'programmed' inflation rate.

The composition of pay for Italian public sector employees is:

(i) *minimo retributivo* - standard rate of pay, which are set through sectoral national negotiations

(ii) *indennità integrativa speciale* - (abolished in 1992-93) additional component of remunerations, used to be paid to adjust salaries to the cost of living

(iii) *retribuzione d'anzianità* - (abolished in 1995) used to be paid according to accumulated seniority

(iv) *primes* - pay premia, were usually paid to (almost all) workers or to specific groups. The criterion for the distribution of the incentive pay fund, for example, was to reward the presence at the workplace so that (almost) everybody would receive it. After the 1993 reform, pay premia are assigned to a limited number of workers for exceptional performance. Hence now they can account for a significant proportion of total pay.

(v) *indennità varie* - indemnities, usually attached to a certain occupation in reason of particularly difficult tasks, responsibilities, etc. Particularly in the past, they were often granted to bypass the stringent budgetary constraints imposed by financial law on the outcomes of negotiations and to assure wage increases. Even after the reform a large number of pecuniary advantages of this type still exists, however - in the spirit of the reform - they should progressively disappear.

Hence starting from 1995, it will be more difficult to follow the evolution of pay in the public sector as the introduction of merit pay mechanisms and significant pecuniary premia will increase the individualisation of pay (Dragonetti, Stancanelli, 1995).

As much as it is the case for France, the remuneration of an Italian civil servant in Central Administration can change, after the reform of 1993, as a consequence of various factors (see also table 1):

(1) The pay levels of civil servants is determined, for its principal component (*minimo retributivo*) through collective negotiations (two years contract).

(2) Salaries might change also due to the increase of pay premia and indemnities. These might be either general (i.e. granted to all civil servants) or specific (i.e. individual merit pay). Pay premia and the various type of indemnities can now vary a lot across ministries and occupations.

(3) The salary level can change due to general revisions of the job classification system of public sector employees, as well as of particular group of workers. These interventions are negotiated with the unions each four years. These measures have been also negotiated at the decentralised level (i.e. by single Agencies) as a mean to increase pay levels of particular occupational groups.

(4) Finally, the pay level can change due to the advancement of the individual in the occupational ladder. For all openings a public competition is announced and only successful candidates obtain the post. In this case, the change in pay is simply due to the application of the wage level associated to the new position.

4.3. Recent evolution of pay in Central administration and future prospects

In Italy, during the 1980s and early 1990s Governments have adopted various policies focused to the objective of reducing budget deficit and the growth of public spending. In this context, the main instrument has been the imposition of constraints on the rate of growth of salaries of public employees. One of the first intervention has been the so-called "Legge Quadro" (L.n.93/1983) which reorganised pay determination procedures and set out the general context for all future measures taken to contain the growth of public sector pay. The "Legge Quadro" introduced several new features in the pay setting process: first, with few exceptions, established the

exclusive role for collective negotiations in pay formation; second, in order to keep under control public sector pay expenses, the outcome of the negotiations had to be approved by a decree of the President and be included in the annual budget to be approved by the Parliament.

Despite these strict regulations, the total wage-bill for public sector employees has continued to grow much faster than what forecasted by the government in preparing the financial law accompanying the budget and, more important, faster than inflation. Only starting with the beginning of the 90's the measures taken proved to be really effective in reducing the total wage-bill of the public sector (Ambrosanio, 1995). In particular, the two waves of negotiations 1985-1987 and 1988-1990 are of particular relevance in order to understand the evolution of pay in the public sector (i.e. between 1986-1989 the annual percentage growth of gross remunerations in the Central Administration has been equal to 12 percent, when consumer prices were growing at 5.5 percent). First, in those years, the ceiling on pay growth fixed by the government was determined with reference to the negotiated pay levels (i.e. the so-called *minimi retributivi*), however most of the increases in actual remuneration were obtained through the concession of indemnities and premia (paid to almost all workers in the sector⁹). Second, in the same period, several measures have been taken in order to modify the career progression of public sector employees. In particular, in 1988 the so-called *ricompattamento* of job classification concerned a generalised advancement of almost all levels higher up in the job classification hierarchy (i.e. the overall effect on the evolution of the pay bill of the *ricompattamento* has been estimated to be approximately 31% over the period 1988-1991, nearly 7.5% per year). Other sectoral measures have also been negotiated as a mean to change pay relativities across occupations and grant further pay increases.

More recently, that is after the creation of the Agency (ARAN) for negotiations in the public sector in 1993, several changes have occurred in the practice of pay determination and in the composition of pay. Whilst, in the early 80's the structure of the pay package for public sector employees was relatively stable and the various components (basic pay, premia, indemnities, etc.) were evolving at the same pace of basic pay (*minimo retributivo*), in the late 80's and in the 90's the evolution of the different components has become rather more complex. In particular, the weight of the 'additional' components of pay, as opposed to standard rates of pay, have progressively gained importance, up to the point that the evolution of salaries of civil servants cannot be described anymore by an index of the changes in basic pay¹⁰. (see Figure 5)

In the light of the recent Italian experience, several conclusions can be drawn at this point as to the descriptive power of the SI for monitoring earnings change:

- (i) in the 80's the existence of a mechanism of indexation and the practice of monitoring negotiated pay 'levels' rather than the effective wage-bill, that is 'volume' pay, has determined a fast increase in total remunerations (also in real terms) of public sector employees. Increases have been granted mainly through the practice of generalised distribution of premia

⁹Biagioli and Santi (1988) report that merit and other incentivating premia were paid to over 90 percent of the employed workforce in the Central Administration.

¹⁰The Italian National Institute of Statistics (Istat) computes an index - for the purposes of monitoring the evolution of pay in the public sector - only considering the basic components of pay as resulting from collective negotiations. See Dell'Aringa and De Luca. (1991) for an example.

and indemnities. Hence, in Italy, the maintenance of the purchasing power of earnings has been obtained first through negotiated pay levels, second by an automatic mechanism of indexation and also by the payment of other 'additional' pay elements. The latter, even if were originally thought as a mean to foster productivity and improve the efficiency of the public sector, in fact were largely used to grant additional pay increases, either at the centralised or decentralised level;

(ii) seniority is, still, an important factor for career advancement in the public sector, even though (very recently) seniority indemnities have been abolished;

(iii) the main emphasis for salary determination is placed on negotiations (centralised and decentralised), also normative issues are dealt with the practice of bargaining.

(iv) Recent changes in pay determination practices have significantly altered the composition of pay, eliminating almost all automatic components of pay increases (indexation, seniority), and introducing effectively merit pay to improve efficiency. Indemnities (other than seniority), still represent an important component of pay and can vary a lot across sectors and occupations. Hence, since the evolution of the different make-up of pay has become rather more complex, basic pay (*minimo retributivo*) is unlikely to be fully representative of the changes in the purchasing power of earnings of civil servants;

(v) the impact on the age structure, due to the slower turnover induced by the cut in public sector employment, and the special measures taken to modify the career progression of particular groups of public sector employees (the so-called *ricompattamento*) have significantly influenced the evolution of pay. In particular, it has meant a faster growth for the total wage-bill.

(vi) The outcome of recent negotiations for the Central Administration (i.e. 1995) has shown a clear departure from previous standards, with wage moderation being at the forefront of the measure taken.

The above discussion can be useful to shed light, for the specific case of Italy, on the observed divergence between the CI and the SI, and on the potential inadequacies of the SI to satisfactorily describe the actual evolution of earnings. As it was the case for France, the importance of the 'additional' components of pay, and the role played by job re-classification measures to protect real purchasing power of salaries can be identified as the main factors for the different performance of the indicators.

5. Proposals for amendments

In this section, we shall review the main points that have emerged from the analysis of the experience of France and Italy in setting wages for civil servants employed in the Central Administration. With reference to the recent behaviour of the SI and the CI, we intend to pursue further the discussion on the adequacy of the current methodology for monitoring the changes in the purchasing power of earnings for EC officials. In particular, we shall first recall the principle of 'parallelism' and, by contrasting the changes occurred over time in the pay determination systems - both in

France and in Italy -, ask whether the SI (conceptually and statistically) is still a valid representation of the actual evolution of civil servants earnings. Second, we shall review the methodology currently in use in the light of the increasing divergence observed between the two indicators (SI and CI) in France and Italy. Third, several proposals will be suggested for possible 'short-term' and 'long-term' amendments to the standard calculation of the SI. Finally, we shall also consider alternative sources of data which might be useful to circumvent the problem posed by the collection of data and the elaboration of specific indicators.

5.1. How to interpret the principle of "parallelism"

The application of the principle of 'parallel' behaviour in salary adjustments between national civil servants and EC officials suffers from several limits: some of these are inherent to its (vague) definition, while others are the results of the dramatic changes occurred in recent years in pay determination practices of various EC countries. With reference to the first point, it should be considered that the requirement of a 'simple' and 'universal' concept, which can encompass different institutional settings and different pay setting practices, inevitably suffers from some arbitrariness in its implementation. Hence the existing differences in the structure and the organisation of public sector employment and in the composition of pay across countries make it particularly difficult to translate the principle into an effective and sufficiently general (common) methodology. With reference to the second point, it must be said that the recent experience of most European countries - characterised by substantial revisions of pay determination and job classification mechanisms - has made the task of adhering to the principle of 'parallelism' using a simple and common methodology particularly difficult. The recent trend has determined a progressive departure of current pay setting procedures from those prevalent in previous decades - when the current methodology for the calculation of the SI and CI was first introduced - and has also significantly exacerbated, *ceteris paribus*, the differences across countries in the pay determination process for public sector employees.

The first remark that can be made, in the light of the above discussion, is that the evolution of pay setting systems in member countries makes it increasingly difficult to satisfy the principle of 'parallelism' using the simple methodology designed for the SI. This occurs for two main reasons: the different meaning of the job classification and the career path of civil servants in member countries, on the one side; and the increasing complexity of the composition of pay, on the other side. The latter means that the simple monitoring of basic pay (on average) will not be sufficient to keep track of the evolution of pay: in this direction, more flexibility in the definition of the remuneration could be a useful modification to the standard methodology. For example, the inclusion of some 'additional' components of pay granted to a number of individuals and not directly related to individual performance (i.e. as it has already been partially done in recent years for France and Italy) could improve the performance of the SI. Since, the treatment of these 'additional' components of pay for fiscal and social contribution matters is very different across countries and for EC officials, particular

care should be paid in assessing the different regimes, and the major differences should be 'averaged out'¹¹.

With reference to the career path and the job classification system of civil servants, it has to be noted that EC officials already have their own career progression and seniority advancements, and that the adjustment method should not duplicate their effects by incorporating some elements of occupational progression in the revaluation of their earnings levels. However, in the light of the French and Italian experience, generalised revisions of the job classification system have been widely used to re-establish pay relativities, grant generalised pay increases and as a mean to protect the purchasing power of earnings. In this context, the principle of 'parallelism' - intended as 'parallel' consideration of the economic and social situation regarding salary adjustments (ART.65) - would require the effects of these measures to be somehow incorporated in the revaluation of earnings levels. Since the SI is a 'fixed weight' index, these effects would not be normally captured by the standard methodology. Furthermore, depending on how the job classification revision is done (i.e. for example, in France it has been done either moving up people in the grade-category structure, or granting additional points to a given grade-category) and on the institutional context in which it occurs (i.e. in Italy, occupational grade-category upgrading have been negotiated by the unions both centrally and locally), the outcome on the index might be different. Also in this case, additional flexibility should be allowed in the computation of the SI, as to partially account for the effects of these general measures. For example, detailed information (concerning the measures and the method adopted in each country) could be gathered and the effects of the job classification revision incorporated in the computation of the index either by revising the occupational weights or by allowing some 'occupational drift'. Of course, some arbitrariness as to the 'type' and the 'generality' of the measures implemented might create some problems of interpretation and further complicate the calculation of the SI, but the resulting index-value should be closer to the real evolution of earnings.

One practical problem, which will be discussed at some length in one of the following sections, is related to the availability of such information within the time limits imposed by the system currently adopted. However, considering the considerable improvement in the collection and elaboration of pay data in Central Administration in most countries (France and Italy included), good estimates of the (average) effects of the above measures could be easily obtained.

5.2. How to deal with institutional change and institutional differences

When the methodology for the calculation of the SI was first conceived (in the 60's and 70's) most European countries were characterised by a wage determination system for public sector employees which had (approximately) the following characteristics:

- (i) extremely centralised setting for pay levels and a rigid job classification structure;
- (ii) salary adjustment was made with reference to the previous year(s) 'levels';
- (iii) basic pay would account for the largest part (if not the totality) of total compensation;

¹¹ A first step so as to guarantee an equal treatment would be to gather detailed information on the regime adopted (for fiscal and social contribution reasons) in each country and confronted with that of the EC officials.

France and in Italy -, ask whether the SI (conceptually and statistically) is still a valid representation of the actual evolution of civil servants earnings. Second, we shall review the methodology currently in use in the light of the increasing divergence observed between the two indicators (SI and CI) in France and Italy. Third, several proposals will be suggested for possible 'short-term' and 'long-term' amendments to the standard calculation of the SI. Finally, we shall also consider alternative sources of data which might be useful to circumvent the problem posed by the collection of data and the elaboration of specific indicators.

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¹¹ A first step so as to guarantee an equal treatment would be to gather detailed information on the regime adopted (for fiscal and social contribution reasons) in each country and confronted with that of the EC officials.

- (iv) no structured collective negotiations, as public sector unions were weak or even absent;
- (v) stable or growing employment (in the public sector).

Under these settings, the SI was very efficient in monitoring the evolution of pay for any given grade-category of the job classification structure. Also, no significant differences would appear in the evolution of pay levels (proxied by the SI) and average labour cost (proxied by the CI). Furthermore, if any difference was to appear, given the increasing size and the high inflow of employees in the public sector, this would be represented by a faster dynamics of the SI with respect to the CI.

Since then the scenario has changed dramatically. As documented in some detail in the previous sections, several countries (France and Italy among them) - under the pressure of increasing public sector spending - progressively revised their pay systems, cut public employment and moderate pay growth. In the new setting, for most countries, the characteristics listed above (from (i) to (v)) have been almost totally reversed. The new features can be summarised as follows:

- (i) progressive decentralisation of pay setting (not so much in France);
- (ii) a more flexible job classification structure, subject to frequent revisions;
- (iii) salary adjustment made with reference to the 'volume' of remunerations rather than previous year(s) 'levels';
- (iv) basic pay accounts for only a portion of total compensation, while 'additional' pay components (indemnities, pay premia, performance related pay) are increasingly important;
- (v) structured collective negotiations and powerful public sector unions (particularly in Italy);
- (vi) decreasing employment (in the public sector).

Obviously, several other features and structural changes have marked a drastic departure from the previous settings, however, those listed above appear to be particularly relevant for the performance of the SI. The changes occurred in the institutional setting call for greater flexibility both in the collection of information and in the implementation of the methodology for the calculation of the SI. There is an evident disparity between the simplicity and the homogeneity of the procedure currently applied and the increased heterogeneity in the pay determination mechanisms. Nevertheless, in order to deal with the increased complexity of the new scenario, a more articulated procedure might prove useful for a better performance of the SI, even without losing the basic structure of the methodology currently applied.

5.3. How to amend the Specific and Control Indicators

In this section we shall discuss, along the lines sketched in previous sections, some of the possible amendments that could be introduced to the current methodology for the calculation of the SI and the CI. In the proposal, we shall try to adhere, as much as possible, to the principle of 'parallelism' and keep, at the same time, the methodology for the calculation of the indices simple and transparent. This section will be divided in two parts: the former will concern some general issues, the latter will focus instead on few specific points.

- General issues

In this section some general issues, which might not have a precise and immediate application for the revision of the procedures for the calculation of the SI and CI, will be discussed:

(i) More effort should be devoted to the collection of a wide range of information on the institutional setting governing pay determination in each country, and the changes occurring over time. Following the current procedure a more active (bilateral) co-operation between Member States and Eurostat could improve the collection of both (general) information and remuneration data. Additional questionnaires on specific topics could be distributed, at given dates, to member countries.

Note: Something similar has already been done by Eurostat, in order to assess exactly the statistical nature of the data on remunerations supplied by each country (ART. 65/17, ART. 65/18)

(ii) A better harmonisation of the statistics which are used to compute the SI and the CI should be pursued further. In particular, as discussed in previous sections, both statistical and conceptual differences contribute to the divergence in the evolution of the SI and the CI.

- huge differences exist in the sample population of reference used for the calculation of the SI and the CI in the various countries (in the case of France the SI is computed on a sample population which accounts for less than 4 per cent of the total employment of the Central Administration - i.e. as defined in the National Accounts and used in the CI).
- a marked difference exists between the definition of "pay" in the SI and in the CI. Further efforts to homogenise the "pay" variables between the CI (which now includes also various types of social charges paid by the employer) and the SI (which does not include social charges paid by the employer) could be fruitfully pursued.
- the increasing complexity and heterogeneity of the composition of pay across countries requires a careful analysis of the different elements which enter in the definition of 'gross remuneration' (used in the SI computation). In the light of these differences - which also exist among Agencies of the Central Administration within a single country - information should be collected on the various types of existing premia and indemnities (see below *specific points*).

(iii) The evolution of the CI, as previously discussed, is influenced by various factors which affect average labour costs but leave the gross remuneration for a given occupational position unchanged. These factors concern the effects on pay of the ageing of the employed workforce and the promotions that follow a public competition (general revisions of the job classification structure are of a different nature). Also the occupational inflows and outflows in the Central Administration can influence the CI. These effects are defined as 'net drift' (or *GVT solde*) and their relevance on the evolution of the CI could be estimated. In comparing the dynamics of the SI and the CI these effects should be deducted from the evolution of the CI, while general revisions of the job classification structure (unilaterally decided by the State or negotiated with the unions) should be accounted for by the SI.

Note: The procedure of deducting the 'net drift' is already currently applied in some countries (for example by the INSEE in France) and could be easily extended to the sample population of the CI.

(iv) Whilst in France pay setting is extremely centralised and only few differences in total compensation exist across different Agencies of the Central Administration, an increasing decentralisation in collective negotiation is taking place in Italy. Decentralised bargaining at the level of single Agencies can involve additional pay premia (which in principle should be matched by productivity gains) and modifications to the occupational classification of employees (where the guidelines are set by central negotiations). Some information on the relevance and the issues dealt with by decentralised bargaining could be collected at given dates (each 2 years for example). In this case, questionnaires could be filled by the various Agencies.

(v) National Statistical Offices collect and elaborate various types of statistics besides those published in the National Accounts. This information could be useful to support and validate the data collected for the SI. In some cases, that is in those countries where the performance of the SI and of the CI is not particularly satisfactory reference to a third (Official) indicator could be added.

Note: Examples of data and indicators elaborated by National Statistical Offices are:
 (France) '*Indice INSEE des traitements*' published by the INSEE
 (Italy) '*Conto annuale*' published by the Ragioneria Generale dello Stato and by Istat.

Before turning to the next section (*Specific points*) we shall consider the feasibility for the implementation of the above proposals. All the points discussed above, require additional efforts and further complicate the procedure currently adopted by Eurostat for the calculation of the SI and the CI. A strict co-operation between Member States and Eurostat is essential for the collection of the information and the data. However, these efforts should be compensated by a better understanding on the evolution of pay in National Central Administrations.

A legitimate question that may arise concerns the availability and the timing for the transmission of the information required. As far as the two countries under investigation are concerned there should be no serious problems: both France and Italy have a well developed system for a prompt updating of remuneration data (even at monthly frequencies) and for the necessary elaborations.

An alternative procedure along these lines, which shall be discussed below in the longer-term proposals, would be to construct a stratified (according to the parameters required by Eurostat) random sample of remuneration data for Central Administration in each country and use it to compute the SI. The feasibility of this procedure should be verified with each country.

- *Specific points*

In this section we shall propose a number of amendments to the methodology currently adopted for the calculation of the SI. These proposals are intended as a short-term modification and do not alter the structure of the current procedures:

(i) In the light of the increasing complexity and heterogeneity, observed both in France and Italy, in the composition of pay - significant differences may also exist among Agencies of the Central Administration - information should be collected on the various types of existing premia and indemnities and, after having excluded the effective 'performance related pay' component, average 'additional' pay components

should be computed for 'stylised' individuals (for grade-category or Agency level). Each 'stylised' pay component should then be included (using the appropriate weights) in the calculation of the SI.

Although some pay premia have already been accounted for in recent years in the calculation of the SI, they still represent a small percentage of the effective 'additional' pay components. Since, as discussed in previous sections, the evolution of total remuneration has been significantly influenced by these kind of pay components (even at the expense of 'basic pay', as it has occurred in Italy) their exclusion can be considered an element of distortion in the evolution of the SI.

In the past, various types of indemnities have not been considered on the premises that they are paid to particular employees for specific tasks or for unpleasant job conditions. Note, however, that the principle of 'parallelism' implies that employees in a given grade-category face (on average) similar job conditions, therefore also special indemnities (i.e. paid for specific job conditions) could be profitably included (using the appropriate weights).

(ii) A more frequent revision (that is yearly, as required by the regulations of Eurostat) of the occupational structure and thus of the weights used to compute the SI should be maintained. Particularly in periods characterised by rapid changes and deep reforms of the job classification structure (like those experienced, in recent years, by France and Italy) the use of inappropriate weights can distort the evolution of the SI.

Also, when revisions of the 'job classification' structure are taken as a mean of revaluating earnings levels for certain grade-categories, or in order to shift up the whole wage structure these measures should be incorporated into the calculation of the SI (as they would not normally be captured by a fixed weight indicator, like the SI)⁽ⁱ⁾. As discussed at some length in the previous sections, this does not mean that the career progression of individuals is incorporated in the SI, but simply that when increase in salary take the form of a higher job classification (i.e. without any public competition as requested by the law) then this effect should be captured somehow by the indicator of the evolution of pay⁽ⁱⁱ⁾.

Note: (i) This might require, under particular circumstances (i.e. major institutional changes), the use of a different index (not a Laspeyres type index).

(ii) This problem of drift is more relevant for Italy than for France, where the revision of the job classification structure have often been done by a revaluation of the occupational point structure or granting additional points to selected grade-categories. In the case of France, if the appropriate weights are used, these measures directly translate to the according salary levels by grades.

5.4. Alternative sources of information for remuneration data

All the proposals discussed thus far had a short-term objective and were casted in the spirit of methodology currently in use. In this section, we shall outline two different directions for a more radical and long-term reform of the methodology. In one case, the proposal intends to suggest the exploitation of the rich administrative archives on compensation costs that National Central Administration have. In the other case, the data necessary to construct the SI could be drawn from the newly established "Structural Earnings Survey" (Eurostat) conducted in all European countries in a standardised way, which could be easily extended so as to cover also Central Administrations.

(i) National Archives on Compensation Costs

Both France and Italy collect (monthly) for administrative or fiscal reasons a huge amount of information on the remunerations of public employees¹². This data are currently elaborated and distributed in official publications ("Les salaires des agents de l'état", INSEE Résultats - "Conti Annuali", Ragioneria Generale dello Stato). Since, performance related pay is often subject to a different treatment (for social security of fiscal reasons), pay composition is detailed and a decomposition of the 'additional' components of pay could be obtained.

Hence an alternative way of constructing an index for adjusting the remunerations of EC officials would consist in drawing a representative stratified (i.e. by categories, Agencies, etc.) random sample of remuneration data for employees of the Central Administration (after excluding military, doctors, teachers, etc.) and following over time the evolution of their pay. Some care should be used in the extraction procedure, so as to avoid selection bias or the use of unrepresentative samples (in some cases also the use of the entire universe of Central Administration employment might be feasible) and also in the treatment of lump-sum and other kind of payments. The elaboration of the data (following Eurostat guidelines) could be done directly by Member Countries or by Eurostat. With the collaboration of Member countries the data could be obtained before the official publication, so as to respect the deadlines imposed by ART.65.

(ii) "Structural Earnings Survey" (Eurostat)

Recently, Eurostat has launched a yearly survey on the structure of earnings (the first survey after a pilot study was in 1994). This survey is conducted with a similar structure and an identical questionnaire in all European countries. Among the scopes of the project there is also the publication of a labour cost index (disaggregated for major sectors of the economy). One option, for the purpose of disposing of reliable and comparable disaggregated data, might be to consider the possibility of extending the survey also to the public sector.

However, two main limits of this procedure should be investigated further: first, in accordance with the requirements set out in Art. 65, reference to the public sector as a whole might not be sufficient and an oversampling of Central Administration to obtain statistically representative data might be necessary; second, the timing for the elaboration of the data may exceed the deadline imposed by the regulations set out in ART.65.

6. Concluding Remarks

This report has examined the main features governing pay determination in the Public sector of France and Italy, in the attempt of evaluating and validating the procedure currently used for the adjustment of the remunerations of officials and other servants of the European Community. The principle of "parallelism" for the adjustment of remunerations to changes in the purchasing power of salaries of national central government civil servants - as retained in Art.65 - has been analysed and the implications for the calculation of the Specific Indicator discussed.

¹²For a detailed description of the new data available in Italy, see Travaglione (1995).

In particular, the present study argues that the conventional view of pay setting in the public sector which lies behind the methodology based on the Specific Indicator - i.e. as being characterised by an extremely rigid structure, lack of effort enhancing incentives and an almost automatic progression of earnings with accumulated seniority - is no longer entirely appropriate. Two main factors may prove useful to explain the changed perspective: first, the actual evolution of earnings is becoming more complex and, in general, rather different from the picture that emerges from the analysis of simple pay scales - i.e. the joint effects of legislative intervention, collective bargaining and career advancements now have a pervasive and significant impact on pay; second, the institutional setting has changed drastically in most countries and the constraints imposed by the market mechanism are starting to become binding also for public sector employees - i.e. employment flexibility, incentive premia, labour mobility, etc. are more common.

In particular, when the methodology for the calculation of the Specific Indicator was first conceived most countries were characterised by a wage determination system for public sector employees which had (approximately) the following characteristics:

- extremely centralised setting for pay levels and a rigid job classification structure;
- salary adjustment was made with reference to the previous year(s) 'levels';
- basic pay accounting for the largest part of total compensation;
- no structured collective negotiations (i.e. public sector unions were weak or absent);

As argued in the report, under these settings, the Specific Indicator was very efficient in monitoring the evolution of pay for any given grade-category of the job classification structure. However, since then several countries (France and Italy among them) progressively revised their pay systems, cut public employment and moderate pay growth. In the new setting most of the features listed above have been reversed. The new features can be summarised as follows:

- progressive decentralisation of pay setting;
- flexible job classification structure, subject to frequent revisions;
- salary adjustment made with reference to the 'volume' of remunerations rather than 'levels';
- basic pay accounts for a portion of total compensation, while 'additional' pay components (indemnities, pay premia, performance related pay) are increasingly important;
- structured collective negotiations and powerful public sector unions;

In the light of the above scenario, a greater flexibility both in the collection of information and in the implementation of the methodology, even without losing the basic structure currently applied, might prove useful for a better performance of the Specific Indicator. Hereafter, we shall present some possible amendments (some rather general other very specific) that could be introduced in the current procedure:

- collection of a wider range of information on the institutional setting governing pay determination in each country and the changes occurring over time;
- better harmonisation of the statistics which are used to compute the Specific Indicator;
- decentralisation in collective negotiation can involve additional pay premia and modifications of the occupational classification of employees. Hence, information

on the relevance and the issues dealt with by decentralised bargaining could be collected at given dates;

- Since each National Statistical Office collects and elaborates various types of statistics, this information could be useful to support and validate the data collected for the Specific Indicator;
- collection of information on the various types of premia and indemnities (excluding effective 'performance related pay') for 'stylised' occupations;
- more frequent and accurate revision of the occupational structure and thus of the weights used to compute the Specific Indicator;

In conclusion it is hoped that with the amendments proposed herein, a better performance of the Specific Indicator in adjusting the purchasing power of salaries for civil servants of the European Community might be achieved.

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Appendix

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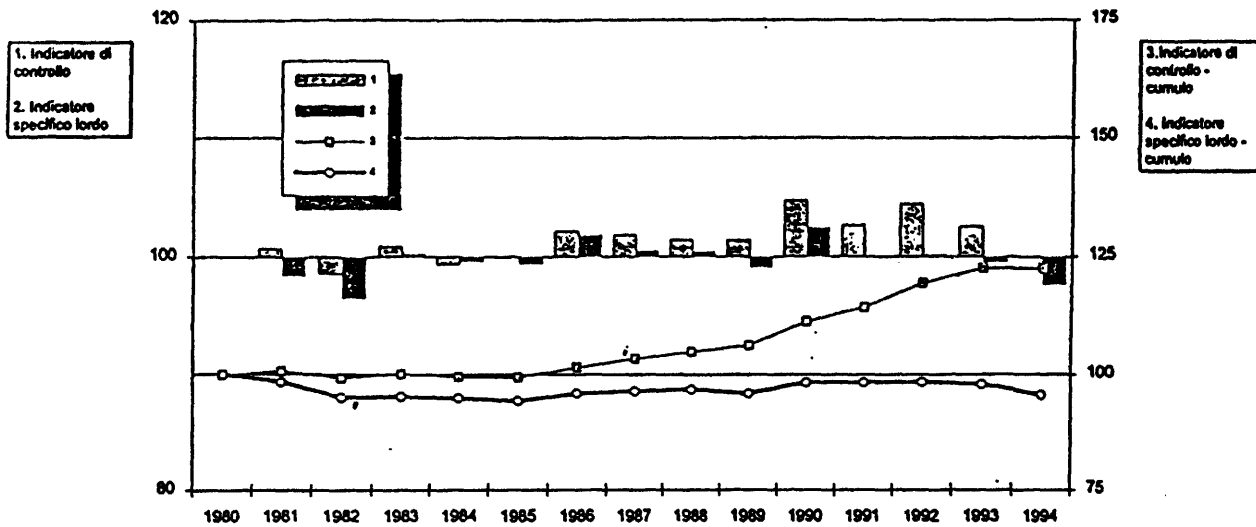
Dott. **GATTO** - *ISTAT (Divisione Contabilità Nazionale)*
- ROMA

Figure 1

Evolution of the Specific Indicator and the Control Indicator
(gross and in real terms, for the period 1980-1994)

EUR12

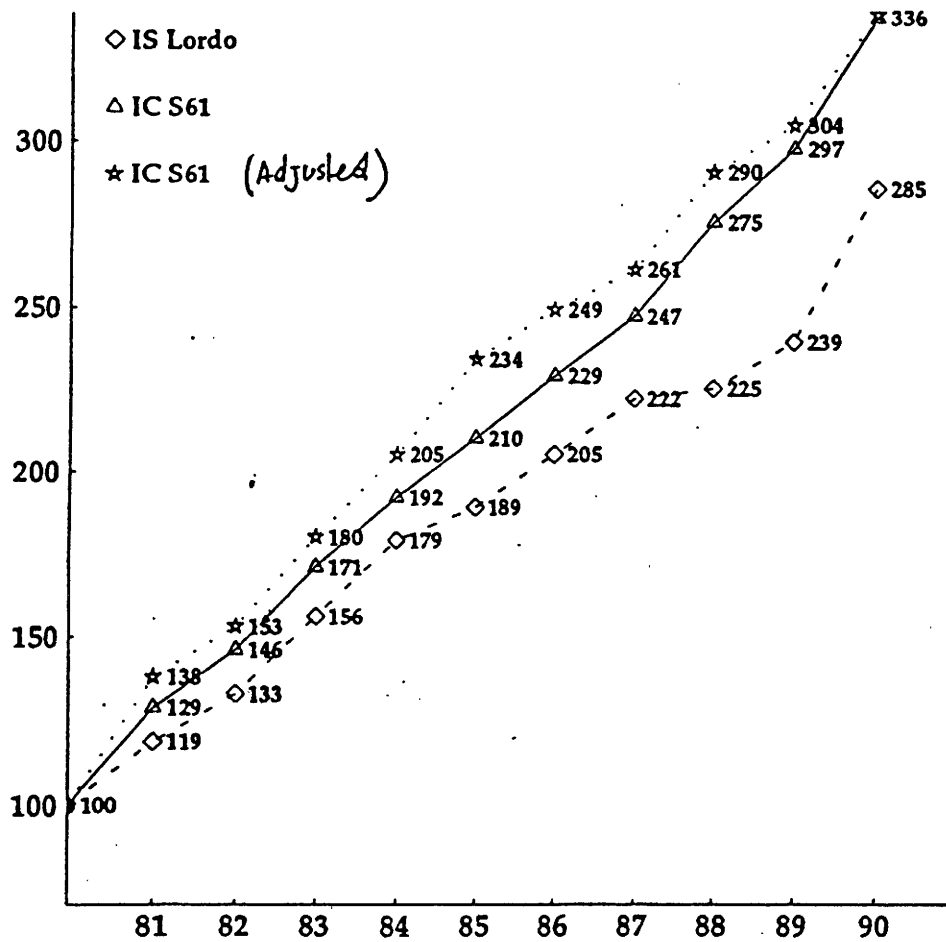
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. Indicatore di controllo	100.0	100.7	98.6	100.9	99.3	99.9	102.2	101.9	101.4	101.4	104.7	102.7	104.5	102.6	99.9
2. Indicatore specifico lordo	100.0	98.4	96.5	100.2	99.6	99.4	101.8	100.5	100.4	99.1	102.5	100.0	100.1	99.5	97.8
1-2		2.3	2.1	0.7	-0.3	0.5	0.4	1.4	1.0	2.3	2.2	2.7	4.4	3.1	2.3
3. Indicatore di controllo - cumulo	100.0	100.7	99.2	100.1	99.4	99.3	101.5	103.4	104.9	106.4	111.4	114.4	119.5	122.6	122.5
4. Indicatore specifico lordo - cumulo	100.0	98.4	95.0	95.1	94.8	94.2	95.9	96.4	96.8	95.9	98.3	96.3	96.4	97.9	95.5
3-4		2.3	4.3	4.9	4.7	5.1	5.6	7.0	8.1	10.5	13.1	16.1	21.1	24.7	26.9



Source: Tab.V.1.A3, Eurostat-unit B3, Report 1994

Figure 2

**Evolution of the Adjusted Specific Indicators (ACI1, ACI2)
and the Control Indicator**
(gross and in real terms, for the period 1980-1990)

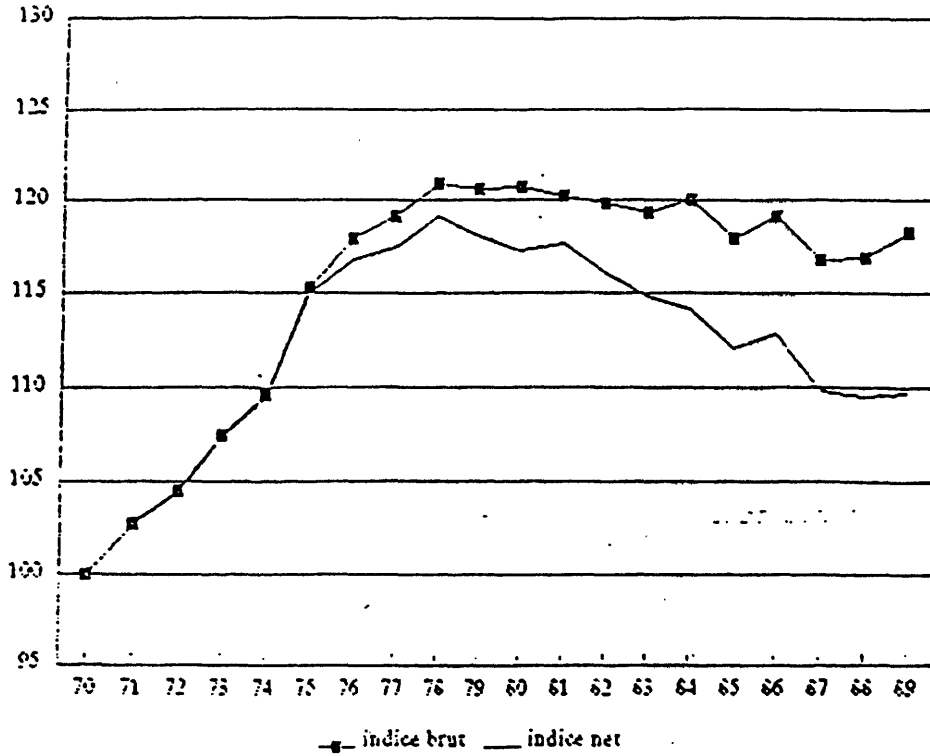


Source: Ferrari (1992)

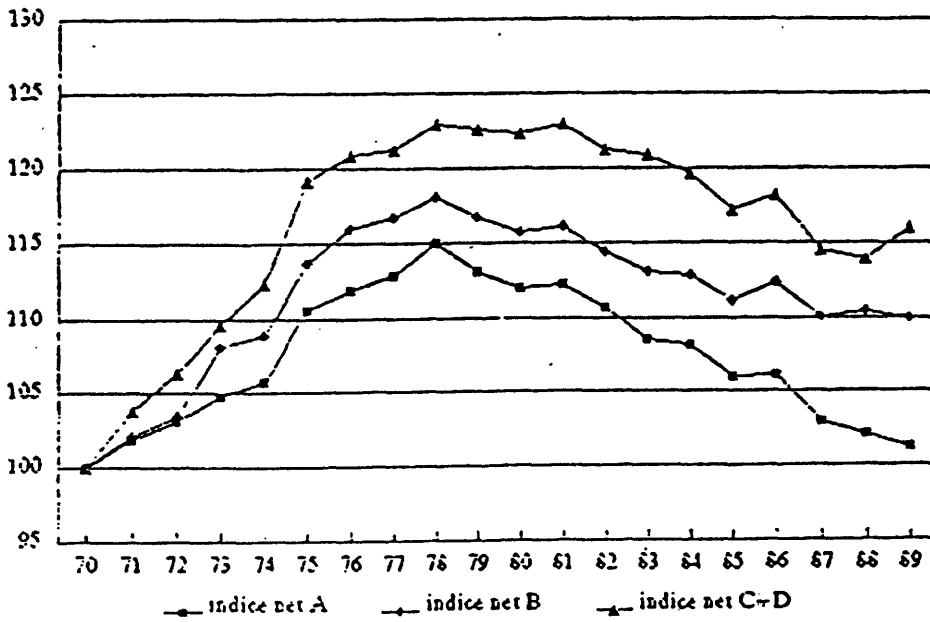
Figure 3

Evolution of the Index INSEE for Remuneration of Civil Servants in France

(gross and net, and by occupational categories in real terms, for the period 1970-1989)



Source : I.N.S.E.E.



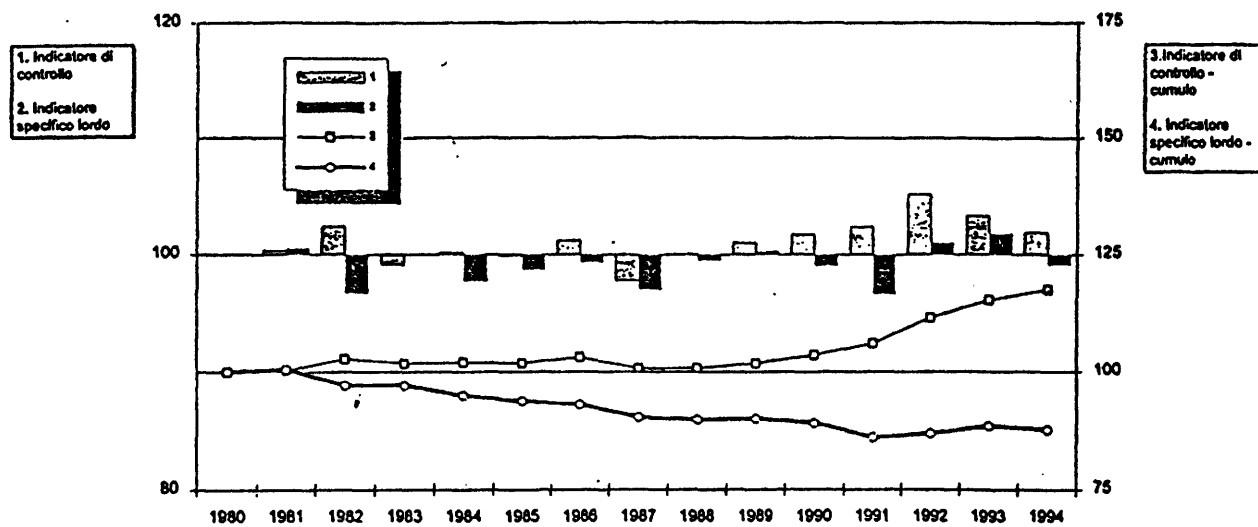
Source: Meurs (1991)

Figure 4

Evolution of the Specific Indicator and the Control Indicator in France

(gross and in real terms, for the period 1980-1994)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. Indicatore di controllo	100.0	100.3	102.4	99.1	100.2	99.9	101.2	97.7	100.0	101.0	101.8	102.4	105.2	103.3	101.9
2. Indicatore specifico lordo	100.0	100.5	96.7	100.0	97.7	98.7	99.3	97.0	99.5	100.2	99.0	96.8	101.0	101.8	99.1
1-2		-0.2	5.7	-0.8	2.5	1.2	1.9	0.7	0.5	0.8	2.8	5.8	4.2	1.5	2.8
3. Indicatore di controllo - cumulo	100.0	100.3	102.8	101.8	102.0	101.9	103.1	100.8	100.8	101.9	103.8	106.1	111.6	115.3	117.5
4. Indicatore specifico lordo - cumulo	100.0	100.5	97.2	97.2	94.9	93.7	93.1	90.3	89.8	90.0	89.1	86.1	86.9	88.5	87.7
3-4		-0.2	9.6	4.7	7.1	8.2	10.1	10.6	11.0	11.9	14.5	20.1	24.7	26.8	29.8



Source: Eurostat-unit B3, Report 1994

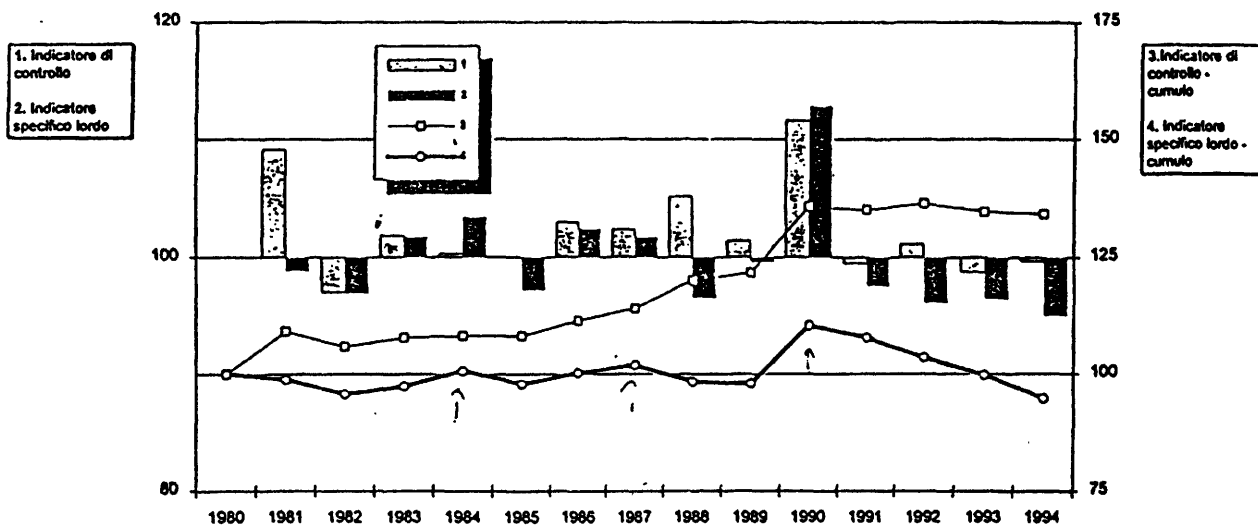
Figure 5

Evolution of the Specific Indicator and the Control Indicator in Italy
(gross and in real terms, for the period 1980-1994)

Grafico V.1.H Evoluzione reale dell'indicatore specifico lordo e dell'indicatore di controllo nel periodo 1980-1994

Italia

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1. Indicatore di controllo	100.0	109.1	97.0	101.9	100.3	100.0	103.0	102.4	105.2	101.4	111.6	99.4	101.1	96.7	99.8
2. Indicatore specifico lordo	100.0	98.8	96.9	101.7	103.4	97.2	102.4	101.7	96.5	99.6	112.8	97.5	96.1	96.4	95.0
1-2		10.3	0.1	0.2	-3.1	2.8	0.6	0.7	8.7	1.8	-1.2	1.9	5.0	2.3	4.8
3. Indicatore di controllo - cumulo	100.0	109.1	105.9	107.8	108.2	106.2	111.4	114.1	120.0	121.7	135.8	135.0	136.5	134.7	134.3
4. Indicatore specifico lordo - cumulo	100.0	98.8	95.7	97.4	100.7	97.9	100.2	101.9	98.3	97.9	110.5	107.7	103.5	99.8	94.8
3-4		10.3	10.1	10.5	7.5	10.3	11.2	12.2	21.8	23.7	25.3	27.3	33.0	35.0	39.4



Source: Eurostat-unit B3, Report 1994

**ARTICLE 65 OF THE STAFF REGULATIONS APPLICABLE TO OFFICIALS
AND OTHER SERVANTS OF THE EUROPEAN COMMUNITIES**

STUDY ON CHANGES IN THE SPECIFIC INDICATOR AND THE CONTROL INDICATOR

24 JANUARY 1996

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I. GENERAL REMARKS ON THE METHODOLOGY

1.1. The specific indicator

The specific indicator (SI) is used for measuring changes in the remuneration of civil servants in the Member States of the European Community with the aim of calculating an overall average of increase applicable to EU officials. This aim is reflected in two requirements in the construction of the index.

- **The field of the index is limited to the established personnel working for central government** whose place of employment is the capital of the country considered. This condition is imposed in order to ensure the necessary homogeneity with the professional profile of the European Communities.

- **The index is restricted to coverage of changes in remuneration** excluding increases linked with personal factors, such as promotion to a higher grade and bonuses paid for personal performance or for working under difficult conditions. The remuneration measured must therefore be equal to the basic salary plus all the bonuses and general allowances received by *all* officials in the reference population.

The construction of the index for the European Communities is based on a series of weightings:

Data are collected for a sample of the reference population, stratified by grade and category, with a representativeness of at least 75%. Within each category (A, B, C, and D) there are a number of grades. These grades can be interpreted as a qualification in the administrative framework (messenger, secretary, administrator, etc.). In those European civil services in which recruitment is based on competitions, that corresponds to the administrative corps to which the official is assigned after passing the corresponding tests. Within each grade, data are collected on the remuneration received at the level of the individual steps. The next stage consists in the calculation of a theoretical average, for each grade, as an average for the lower, average and higher step. Therefore this method implicitly assumes the existence of a "career" structure within the administration. It should be noted that the average calculated in this way is an average based on the salary scale and is not equal to the average remuneration actually received. If that were the case, the indicator would record the changes in average salaries caused by demographic factors (recruitment, retirements) or career patterns (progress to a higher step).

For each category (A, B, C and D) the procedure consists in the calculation of an average value equal to the average value per grade weighted by the number of personnel in t-1 of the sample. Total average remuneration is equal to the average per category weighted by the breakdown of the total reference population into the four categories A, B, C and D. The annual rate of change calculated for the individual Member States is deflated by the consumer price index of the country concerned. Finally, the trend of the specific indicator for the 12 Member States is the average value of the national rates of increase weighted by the breakdown in t-1 of the total wage bill of central government (S61), expressed in ecus.

The quality of the specific indicator, i.e. its capacity to ensure the parallelism of the movements of remuneration in the European civil service with those in the national civil services, depends on the following conditions:

- **the reference population.** As a result of the tendency to decentralize in certain Member States, some of the tasks formerly carried out by central government located in the capital can now be carried out by decentralized bodies. This raises the question of whether European civil servants should be compared only with the civil servants employed by central government, with the attendant risk of reducing the reference population and constituting a group which is hardly representative of the trend of salaries in the civil service as a whole or, on the contrary, whether the definition of the reference population should be broadened in order to retain a numerically consistent group, with the aim of ensuring that the annual increases are not solely the result of measures affecting specific categories which would only apply to a limited number of staff.
- **the representativeness of the sample in the reference population**
- the capacity of the national administrations to provide information on changes in their salary scales and, in particular, to distinguish between the changes in remuneration which apply to all the civil servants in the sample on the one hand and those which are individualized on the other.
- Whether there are any steps at all within each grade.
- More generally, the concept of parallelism should imply that the ratio of across-the-board increases to individual increases is more or less the same in the European civil service and the national civil services. But in the case of France, for example, Civil Service pay policy has tended since 1989 to favour the maintenance of the salary scale in terms of purchasing power while at the same time enabling individual rises in purchasing power to be obtained either in the form of individualized bonuses or, more frequently, by more rapid promotion. The specific indicator cannot rise when general rises in remuneration just compensate for inflation. In such cases, there cannot be an increase in the specific indicator. This raises the question of whether it would be a good idea to adopt a broader concept of parallelism transcending the strict comparison of salary scales. In other words, would it be a good idea to add to the comparison of changes in salary scales a comparison of career patterns between the European civil service and the nation civil services?

1.2. *The control indicator*

In application of Article 65 of the Staff Regulations applicable to officials and other servants of the European Communities, an indicator, known as the control indicator, is calculated annually and the changes in it are compared with those in the specific indicator. This index, which is based on data obtained from the national accounts of each Member State, is equal to the increase in the total wage bill of sector S 61 (central government) divided by the corresponding number of staff. Numerous earlier reports have covered the factors explaining why this indicator increases at a higher rate than the specific indicator (cf. bibliography). The three main factors are:

- The control indicator is calculated on the basis of a total per capita wage bill and consequently includes the social contributions paid by employers. In fact, the 1980s saw a marked increase in this element in most Member States.
- A structural effect. The resultant of arrivals and departures of civil servants is generally negative, because newcomers entering employment at the bottom of the salary scale are paid lower salaries than officials going into retirement. But this effect is more than offset by the impact of seniority (movement up the salary scale) and qualifications (the number of qualified employees increases as time goes by). The resultant balance between staff turnover, seniority and qualification (glissement-vieillesse-technicité), known in French as the "GVT solde" (GVT balance), is positive. This effect is obviously accentuated if civil service pay policies consist in raising the level of their remuneration by accelerating their progression up the salary scale.
- All the measures affecting the components of remuneration which are not covered in the specific indicator. The most frequent example is that of the bonuses and allowances which are not always included in the elements of remuneration used for constructing the specific indicator. But the measures in this category also include increases in the remuneration of civil servants who are outside the reference population for the specific indicator. The greater the tendency of pay policy to differentiate pay scales within the civil service (e.g. uprating the pay scales for teachers or nurses), the greater this effect will be. In other words, there can be no guarantee that a specific indicator limited to the officials employed in central government is representative of the across-the-board changes affecting all civil servants.

II. FRANCE

2.1 The remuneration of officials in France.

France is probably one of the best equipped European countries for supplying information on the specific indicator in view of the general philosophy which underlies the organisation of public sector pay. Recruitment by competition is still the main avenue of access to the civil service. Each competition gives access to an administrative corps with a clearly defined hierarchical scale of remuneration and a relative guarantee of promotion based on length of service¹.

The increase in the gross remuneration of a French civil servant (single, no children) in a given category depends on the following factors:

¹ Promotion from one step to another is generally based on length of service. Careers can be accelerated, however, in the light of personal performance. Within each administrative corps, there are a number of classes (3 or 4) between which promotion is not automatic but dependent on personal performance measured either by reference to personal records or reports, or by professional examination, or by competition.

- 1) general increase in the value of the index point ("point d'indice") used as the reference for calculating the basic salary or the allocation of index points;
- 2) uprating of the salary scale of the category or administrative corps to which the official belongs;
- 3) uprating or creation of a bonus applicable to all officials in the category concerned;
- 4) movement to a higher step or another administrative corps (generally as a result, in the latter case, of passing an internal competition);
- 5) uprating or creation of a personalised bonus (e.g. the new performance-related bonus known as the NBI).

The above-mentioned factors are either general, i.e. are the result of an increase in the total wage bill (measures 1, 2 and 3), or personal, i.e. are quality-related (measures 4 and 5).

Since 1980 there have been two distinct phases of pay policy in the French civil service, which can be summarised as follows:

- From 1980 to 1989, increases were generally across-the-board increases in the index point, the structure of the salary scales remaining largely unchanged, with two exceptions: firstly, the pay of teachers in general and of primary school teachers in particular was improved by uprating their salary scales and by specific measures. It should be noted that teachers represent approximately half of all State employees. Secondly, more generous treatment was given to category D employees throughout the French civil service.
- Since 1989 trends in remuneration have become more diversified. There have been increased bonus payments for certain administrative corps or at certain levels in the salary scale, and in certain administrative corps there have also been changes to the pay scales and more rapid promotion. The overall picture is one in which salary increases in the civil service are granted more in the form of additional bonuses or accelerated promotion than in the form of a rise in basic pay.

2.2. Breakdown of the changes in per capita gross remuneration

To analyse the difference between the specific indicator and the divergence between the specific indicator and the control indicator between 1980 and 1994, we have taken the following steps:

- construction of a control indicator which excludes the social contributions of employers, and verification of its pertinence;
- breakdown of this trend according to the three elements mentioned: the increase in pay scales, the GVT balance and the increase in bonuses.
- the ability of the specific indicator to record changes in the pay scales of civil servants in central government.

2.2.1. Changes in per capita gross remuneration

We have used series R11 (gross wages and salaries) for sector S61 published by the INSEE in the Accounts of the Nation. This series corresponds, with the exception of employers' contributions, to the figures communicated in the Eurostat documents. That enables us, therefore, to filter out the effect of employers' social contributions, the main factor underlying the divergence from the specific indicator. Table 1 gives series R11 divided by the staff numbers as published by Eurostat (i.e. all staff employed in the administration); we compare these data with the per capita gross remuneration of civil servants as calculated by the INSEE with figures obtained from wages files. These data are not directly comparable: their coverage is different, since the INSEE series does not include military personnel; the INSEE calculates the number of staff in full-time equivalent, while the Eurostat figures include part-time staff. In view of this latter fact, it is normal that the INSEE salaries are higher than the Eurostat series. On the other hand, it can be seen that the trend for the past twelve years is similar (series "accounts for the nation": 1982=100; 1994=179; series "figures obtained from wages files": 1982=100; 1994=174). We therefore consider that the series taken from the accounts for the nation is indeed representative of the trend in per capita gross remuneration in the civil service and can be used to analyse the divergences from the specific indicator.

Table 2.1: Comparison of the different sources of data on per capita gross remuneration

	1982	1984	1986	1988	1990	1992	1994
INSEE (1)	93360	107940	117920	125050	141380	152040	159130
	100	118	129	137	155	166	174
IC (2)	81927	97340	103606	108169	120895	134634	147013
	100	118	126	132	147	164	179

(1) Gross remuneration in French francs. Figures obtained from wages files, civil servants (full-time equivalent).

(2) Control indicator. Series R61 of the accounts for the nation, all government employees (i.e. including military personnel).

2.2.2. Breakdown of the increase in per capita gross remuneration between 1980 and 1994

In line with the thinking described above, the increase in gross remuneration can be broken down into three elements:

- **A structural effect.** This can be evaluated from the calculation of the GVT balance, which is estimated by the INSEE by analysing the wages files of civil servants. As Table 2 shows, this effect, which at the beginning of the 1980s produced a moderate increase of approximately 0.4% in gross remuneration, increased considerably from 1989-1990 onwards, to the extent that it now generates growth of over 1% in gross remuneration.

Table 2.2 : The GVT balance

82	83	84	85	86	87	88	89	90	91	92	93	94
0,3	0,3	0,4	0,4	0,4	0,4	0,4	0,8	0,9	0,8	1,3	1,1	1,1

Source: INSEE. 1994: estimate.

- **A bonus effect.** From 1989 onwards, there was a marked increase in the percentage of bonuses in gross remuneration (see Table 3), due in part to the pay reform plan in national education and to an increase in the percentage of bonuses for teaching staff, for whom the average bonus rate is far below that of other officials (see Annex 1). Figure 1, which plots the trend in gross remuneration, average per capita bonuses and the specific indicator with base 1980=100, clearly shows that from 1989 onwards bonuses increased far more steeply than gross remuneration, although this growth was not so marked at the end of the period.

Table 2.3: Average percentage of bonuses in gross remuneration

82	86	88	89	90	91	92	93	94
8,2	8,6	8,9	(*)	11,2	11,6	12	12,6	12,9

(*) The figure for 1989 is not meaningful, since in November of that year an exceptional growth bonus of FF 1 200 was granted to all civil servants.

Source: INSEE, Les salaires des agents de l'État en 1991 et 1992, INSEE Résultats, No 333, September 1994

- The effect of increases in the pay scales

In order to determine the increase in labour costs, the INSEE has calculated since 1970 (with a revision in 1992) a monthly index of civil service remunerations². This index currently covers a little over 90% of all civil servants, i.e. 138 administrative corps, taking accounts of all grades and steps (2 250 steps in all). The weightings are calculated on the basis of data from wages files; the current base is the structure by corps and steps in 1990. The index measures changes in remuneration caused by general or category-related measures where such measures relate to the whole of a category or administrative corps, the structure remaining constant.

The INSEE monthly index of civil service remuneration is used to measure changes in the remuneration of civil servants, i.e. the impact of changes in the wage structure applying to all the civil servants doing the same type of job. It therefore has similar objectives to Eurostat's specific indicator, except that its coverage is virtually exhaustive. It should be noted, however, that, unlike the figures supplied to Eurostat by the French Budget Ministry since 1993³, the INSEE index relates to wages and salaries only and thus does not include bonuses and allowances.

All these elements figure in Table 4. The first column gives the changes in per capita gross remuneration calculated on the basis of national accounts (i.e. the control indicator in Eurostat terminology), the second the specific indicator (sliding average from July to July), the third the INSEE index of pay scales (annual average), the fourth bonuses and the fifth

² Cf Guillaume Houriez, Les salaires des agents de l'État en 1991 et 1992, INSEE résultats, No 333, INSEE, 1994.

³ The inclusion, from 1993 onwards, of the average bonus rates in the elements of remuneration on which the specific indicator is based has permitted closer alignment with the initial definition corresponding to Article 65, since it stipulates that "all the elements normally making up an official's remuneration" must be recorded.

the GVT balance. Between 1980 and 1994, there was a difference of 53 points between the control indicator and the specific indicator, i.e. 23%.

Table 2.4 Breakdown of the factors of growth in per capita gross remuneration

	Gross per cap. rem.	Gross SI	Gross INSEE index	Bonuses	GVT balance
1980	100	100	100	100	
1981	113,8	114	113		0,3
1982	128	123,2	126	120,5	0,3
1983	140,5	135,1	137,5		0,3
1984	152,1	141,8	148,5	143,8	0,4
1985	159,1	181,1	154,4		0,4
1986	161,9	150,9	160,1	159,8	0,4
1987	165,3	151	161,9		0,4
1988	169	154,3	166,3	173,8	0,4
1989	178,4	160,2	174,3		0,8
1990	188,9	164	177,9	251,2	0,9
1991	198,1	164,5	182,4	271	0,8
1992	210,4	169,5	188,4	295,7	1,3
1993	222	175,6	193,6	300,4	1,1
1994	229,7	177,1	196,9	314,2	1,1
Difference in points		52,6	32,8		
Difference in %		22,9	14,3		
		-1	-2		

- (1) Difference between the control indicator and the specific indicator
(2) Difference between the control indicator and the INSEE remuneration index.

The difference between the changes in per capita gross remuneration and the changes in the INSEE index is smaller (14%). This is due to the structural effect and the bonus effect, since - if we disregard the cumulation of structural effects (GVT balance) - gross remuneration in 1994 would be FF 134 998, i.e. 210.9 in the 1980-based index. If we deduct the percentage of bonuses in gross remuneration (8.2% and 12.9% in 1980 and 1994 respectively) to obtain the core remuneration, per capita remuneration then amounts to FF 58 752 in 1980 and FF 117 583 (FF 134 998 x (1-12.9%)) in 1994, i.e. a growth of 101%, compared with growth of 96.9% in the pay scale as measured by the INSEE index. From the fact that there is consistency between the increase in gross remuneration and the effect of the scales as measured by the INSEE index cumulated with the effect of bonuses and the structural effect, we can deduce that part of the increase in the pay scales has not been recorded by the specific indicator. In other words, the residual difference between the control indicator and the specific indicator, once the structural effect and the bonus effect have been removed, is due to the fact that measures affecting the pay scales of the French civil service are not fully covered.

The figures in the following table show the breakdown of the divergence between the specific indicator and the control indicator in terms of these four components.

Table 2.5 Breakdown of the divergence between the control indicator and the specific indicator.

	1980	1994	Difference I'IS in points	Decomposition of difference % (61.8 = 100)
Wage Bill	100	238.9	61,8	14,9
Gross Wages	100	229.7	52,6	30,4
Gross Wages without GVT	100	210.9	33,8	22,7
Gross Wages without GVT and primes (1)	100	196.9	19,8	32
Specific Indicator	100	177.1	0	

(1) Measured by the evolution of the INSEE index of civil service salaries.

In short, the divergence between the control indicator and the specific indicator grew to 61.8 points between 1980 and 1994. 14.9% of this divergence was due to the rise in employers' social contributions, 30.4% to the structural effect (seniority and qualifications) 22.7% to the increase in bonuses and 32% to the divergence between the evolution of salary scales in the civil service as a whole and that measured by the specific indicator.

2.3. Comparison of the INSEE index and the specific indicator

To analyse the residual divergence between the evolution of salary scales and that of the specific indicator, we will use the INSEE's GVT series (july to July) to eliminate the distortions resulting from the difference between the annual average and the GVT and those which are attributable to the dates of implementation of the measures which are taken.

In Table 2.6, we have reconstructed the changes in the INSEE gross index (in real-value terms) from July to July, compared with the real annual variations of Eurostat's specific index. We note (Figure 2) that the two curves are very close, particularly for the last three years, although the INSEE index is slightly higher than the specific indicator.

Table 2.6 Comparison of the gross INSEE index and the gross specific indicator.

	Gross INSEE Annual change	Gross SI Annual change	Difference SI - INSEE
1980			
1981	99,3	100,5	1,2
1982	98,9	96,7	2,2
1983	100,6	100	0,6
1984	98,7	97,7	1
1985	99,6	98,7	0,9
1986	99,7	99,3	0,4
1987	97,9	97	0,9
1988	100,5	99,5	1
1989	99,9	100,2	0,3
1990	100,2	99	1,2
1991	98,7	96,6	2,1
1992	101,4	101	0,4
1993	101,4	101,8	0,4
1994	99	99,1	0,1

GVT (July to July); real terms.

The differences recorded may initially result from differences in the structure of the reference population. As Table 6 shows, the distribution between categories A, B, C and D differs between the civil service as a whole and the specific indicator reference population. The large number of civil servants in category A is explained by the fact that teachers are classed in this category. In order to compare these two indicators more thoroughly, we plotted the changes for the four categories (Figures 2a, 2b and 2c). We note that the specific indicator for categories A and B is systematically lower than the INSEE index, except in 1981. On the other hand, in the case of category C, differences may be either positive or negative. Lastly, for the last two years, the changes are practically identical in both indicators.

Table 2.7 Comparison of the structure of the reference populations

	Central gov't 1992	%	INSEE 1990	%
Category A	6924	17.4	30500	27.4
Category B	5498	14.0	25600	23.1
Category C	22153	56.6	45800	41.3
Category D	4701	12.0	9100	8.2
TOTAL	39176	100	111000	100

2.4. Category-related measures and specific indicator

In order to understand these differences, we must look at what each indicator can record in the light of the way in which it is devised:

- Overall increases (increase in the value of the index point, allocation of index points) will be evaluated in exactly the same way in both cases. These measurements automatically affect the indices for the beginning and end of an official's career, which is the basis for calculating the specific indicator, and result in an upward shift in the pay scales (a 1% increase in the value of the point produces a 1% increase in the INSEE index).
- We have already seen that, as long as they involve a change in the pay scales which applies to an entire group of officials, category-related measures are recorded by the INSEE index, which covers virtually all civil servants. The larger the administrative corps is in numerical terms, the greater the resulting change. On the other hand, the specific indicator covers only twelve grades of the French civil service (see list in Annex 2).

Until 1988, changes in the pay scales of a given category of officials were very limited. The main groups to have benefited from specific measures are primary school teachers (category B), whose pay scales were increased on 1 January of each year from 1983 to 1988, and secondary school teachers (increase in the pay scales of secondary school teachers). These measures affecting teachers are estimated to represent for this period three-quarters of the impact of category-related increases in the INSEE index⁴. This could therefore explain why, during this period, the specific indicator is systematically lower than the INSEE index for categories A and B.

⁴ Cerc, Constat de l'évolution récente des revenus en France 1988-1991, No 103, 4th term of 1991. This results from the large number of teachers in category A (80% of the A range in the INSEE index) and in category B (76% of the B range in the INSEE index).

From 1989 to 1991, teachers continued to benefit from specific measures, but there were category-related increases for other sections of the civil service without it being possible to isolate the effect of each of them. It is perfectly possible that the civil servants concerned did not come within the coverage of the Eurostat index. Furthermore, a specific indicator can only record a category-related increase if it affects the index at the beginning or the end of the career of the civil servants in the reference population. Any changes to the pay scales which do not alter the terminal indices do not affect this index.

From 1990 onwards, the reform of the civil service pay scales (the 7-year Durafour plan), which was in addition to the category-related measures mentioned above, forms a set of complex measures (see Annex 3) which affected the pay scales of categories B and C and led to the gradual elimination of category D. As previously, these measures cannot be recorded in the specific indicator unless they alter the terminal indices. However, the impact of the Durafour plan on the INSEE index is relatively small and cannot therefore be the sole explanation for the differences between the specific indicator and the INSEE index. According to the INSEE, the second and third phases implemented in August 1991 and August 1992 produced an increase of 0.2% in the index expressed as a sliding average (December to December), compared with nominal increases of 3.1% and 2.9% respectively. The figures for these two years involve only the category-related increases, except for the measures for primary school teachers (September 1990 and September 1991) and the restructuring of the index for category A secondary school teachers in September 1994.

2.5. Pertinence of the specific indicator

To sum up, the specific indicator seems to be a suitable instrument for recording changes in the pay scales of French civil servants when general measures are involved (upward adjustment of the value of the point). It has the advantage of being very simply structured. It should be noted, however, that the breakdown into four categories no longer corresponds to the actual situation in France, since category D has been phased out.

Compared with the INSEE index of remuneration, the specific indicator has included since 1993 the bonuses of central government officials⁵. This enables it to be more in line with the initial definition of this indicator, which must cover all the normal elements which make up remuneration. In the future, this might be a source of divergence from the INSEE index if there is an increase in the bonus rate paid to central government officials.

On the other hand, it is limited by its narrow field of reference. The category-related measures not covered by the specific indicator are the source of differences between it and the control indicator (per capita gross remuneration) which are added to the factors identified in the preceding part, i.e. the structural effect and the effect of the overall trend in bonuses⁶. For the past two years, the evolution of French civil servants' pay has been

⁵ It was linked to the preceding series by recalculating the 1992/1993 increase on the basis of new figures for 1992 which included the bonuses paid during that year.

⁶ More precisely, from 1993 onwards the difference between the overall rate of increase of bonuses in the civil service and that of central government officials.

shaped by general measures, but the country may well see a return to category-related measures in due course. One way of evaluating this drift might be to ask the INSEE to calculate and communicate the changes in the remuneration index in July excluding teachers and to compare the results with the changes in the specific indicator excluding bonuses.

Finally, it has to be emphasised that its construction does not enable career effects to be taken into account in spite of the increasingly important role they play in the evolution of civil service salaries in France.

Figure 1

FRANCE : 1980-1994
IS brut et INSEE brut

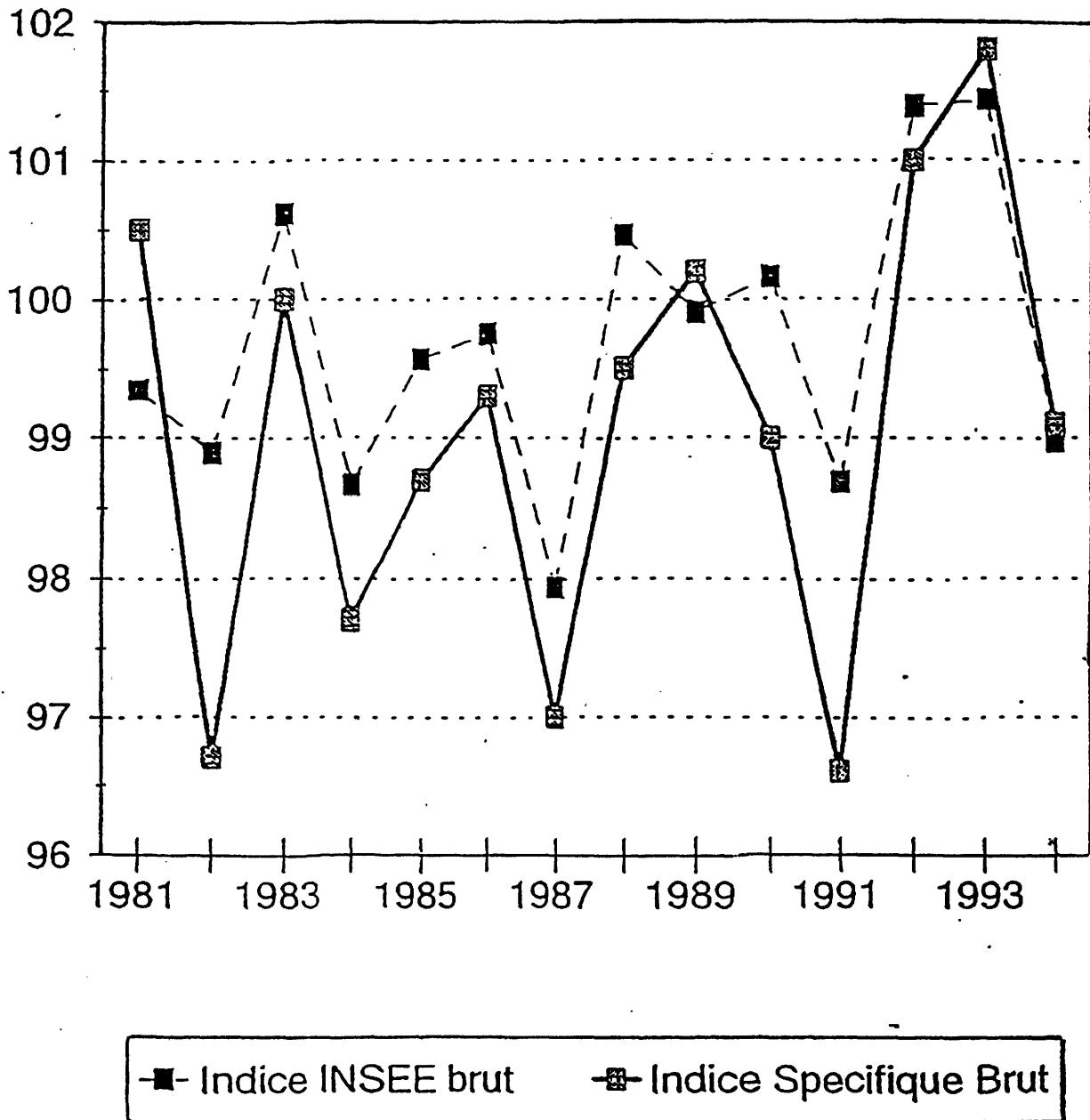


Figure 2a

Indices INSEE et EUROSTAT
pour la catégorie A.

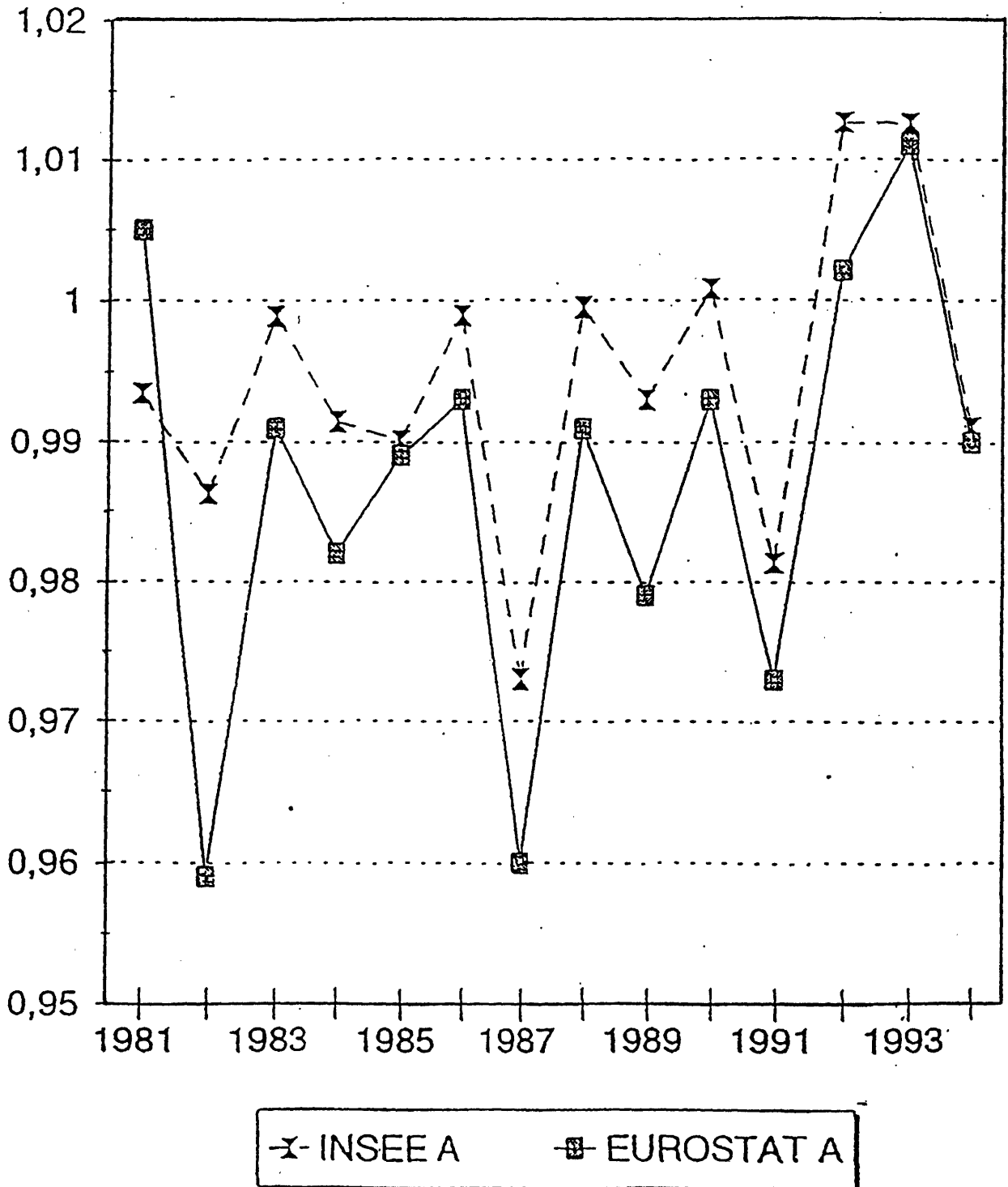


Figure 2b

Indices INSEE et EUROSTAT
pour la catégorie B

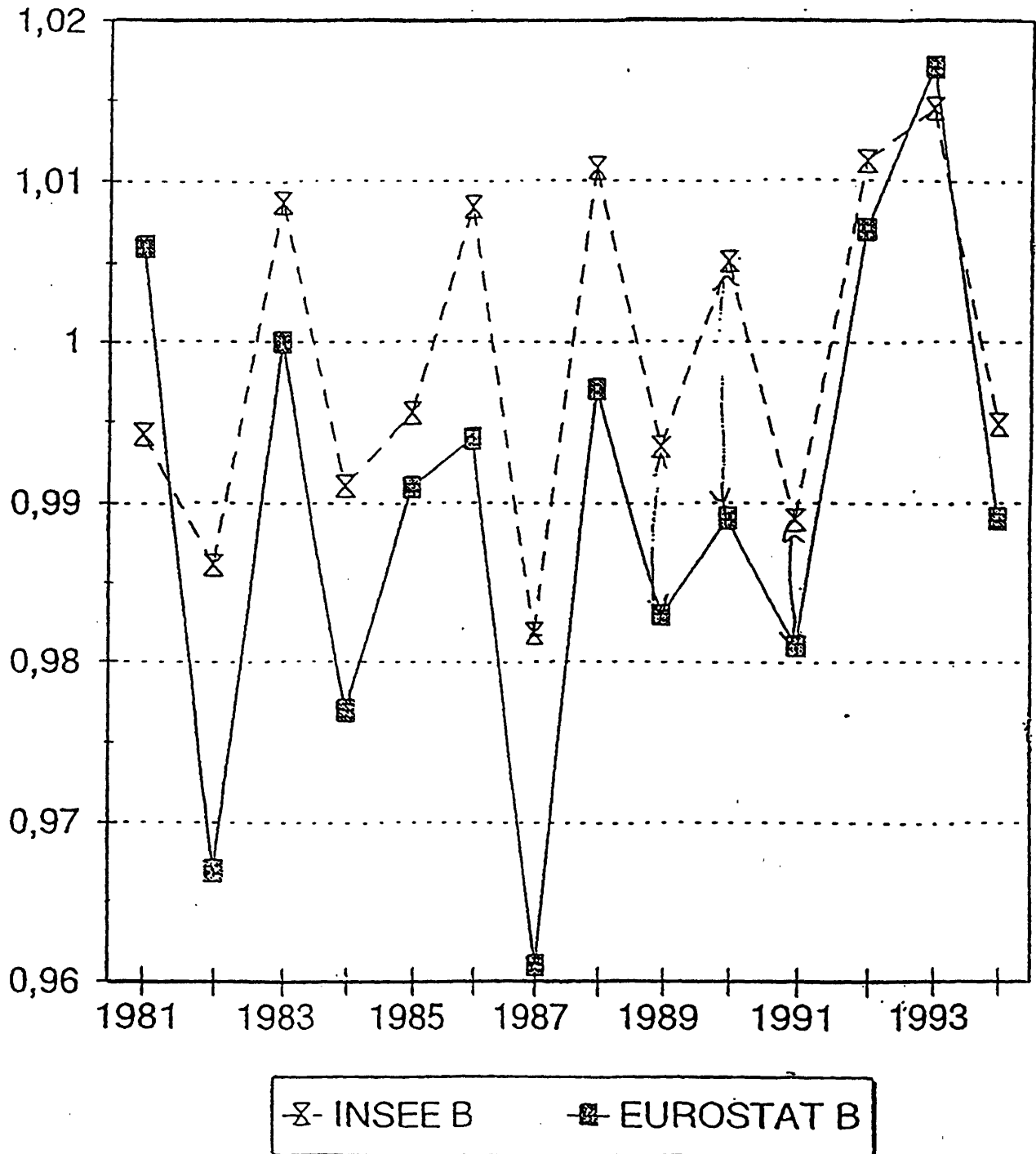
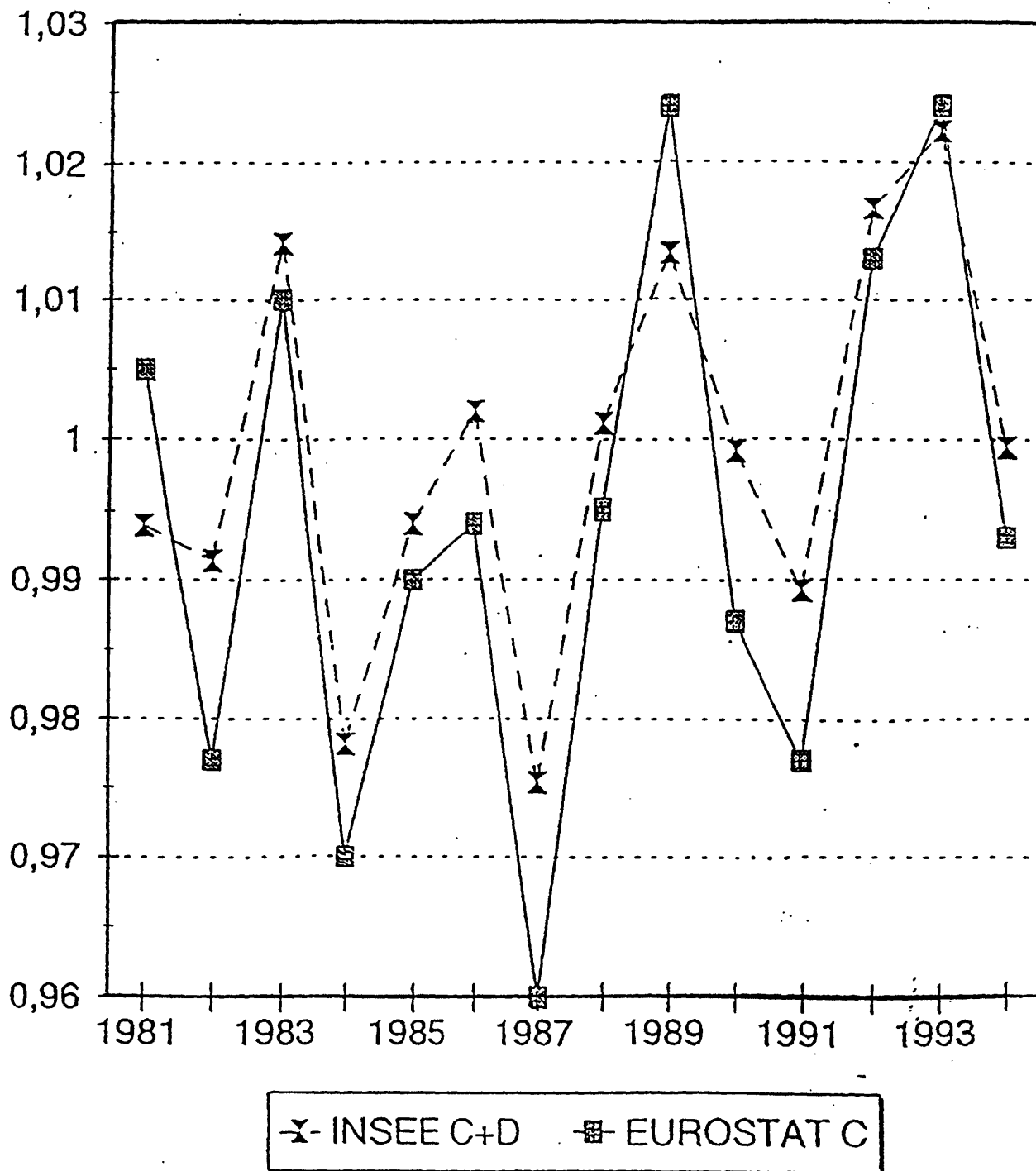


Figure 2c

Indices INSEE et EUROSTAT
pour la catégorie C



ANNEX 1
Average bonus rate by socio-professional category
(Established officials employed full-time in the capital in 1992)

Socio-professional categories	Bonus rates
Managers and senior academics	20
Managers	38
Directors	39
of which: Directors <i>hors classe</i>	41
Judges	38
Administrators and equivalent	45
of which: Administrators <i>hors classe</i>	37
Principal attachés and inspectors	39
Attachés and inspectors	34
Engineers (of the "grands corps technique")	43
of which: Project managers	46
Project engineers	46
Academics	15
University professors and equivalent	11
Senior lecturers	14
Assistant lecturers (without the "agrégation" examination)	20
Lycée teachers (with the "agrégation")	25
Graduate lycée teachers and equivalent	14
Intermediate professional levels	5
Secondary school teachers (established)	15
Headmasters of primary schools with more than one class	9
Specialized primary teachers	8
Other primary school teachers	9
Administrative assistants and controllers	27
Intermediate professional levels of the police and the prison service (2)	28
Technicians	15
Foremen and supervising officers	29
Non-manual and manual staff	20
Police and prison officers (3)	37
Service staff (step 4 of category C and above)	22
Other category C non-manual staff	13
Category D non-manual staff	10
Category C maintenance staff	15
Category D maintenance staff	5
Skilled workers	10
Category C unskilled workers	4
Category D unskilled workers	6
Overall average	18

Source: Enquête sur les fichiers de paie INSEE-DGAFP.

(1) The bonus rates are equal to the quotient obtained by multiplying bonuses by net salary plus the residence allowance. These rates are calculated as ratios of average amounts and not as simple averages of individual rates.

(2) Police inspectors, prison administrators, etc.

(3) Police officers, prison officers, etc.

ANNEX 2: List of grades surveyed in the specific indicator for France

Category A

**Director C-E
Director B-C
Civil administrator *hors classe*
Principal attaché
Central government attaché**

Category B

**Head administrator
Administrator, head of section
Administrator**

Category C

**Head of group
Administrative assistant
Administrative officer, first class
Internal service inspector
Principal worker
Worker, first class
Central government worker**

Category D

Messenger, clerical officer

ANNEX 3

FONCTION PUBLIQUE DE L'ETAT
 PROTOCOLE D'ACCORD DU 9 FEVRIER 1990
 4ème TRANCHE - 1er AOUT 1993

	EFFECTIF CONCERNE	COUT (millions de francs)
CATEGORIE D		
Passage de E1 en E2 (résorption de la catégorie D)	32 000	112,5
Requalification des agents de service	dont 12 000	42,2
CATEGORIE C		
E3 : grade d'avancement	11 500	67,4
Nouvel Espace Indiciaire - NEI - 2ème tranche (5%)	7 600	171,25
Maîtrise ouvrière Création du 6ème échelon MOP	400	4,8
Incidences sur la restructuration des filières	3 647	80,0
Reclassement des chefs surveillants et inspecteurs	6 815 chefs surveillants 285 inspecteurs	23,8
Transposition aux gradés et gardiens de la paix, enquêteurs de la police nationale et surveillants de prison	108 000	112,3
SOUS TOTAL CATEGORIE C et D	170 247	614,25
CATEGORIE B		
Fusion des 2 premiers grades (1ère tranche de repyramidage)	90 000	150,0
Classement Indiciaire Intermédiaire		
- Infirmiers(ères) de l'Etat	5 000	(cf LF.91)
- Techniciens sanitaires	300	3,4
Transposition aux atypiques et aux policiers	17 000	54,5
Accès des instituteurs au corps de professeurs des écoles (4ème tranche)	5 000	139,3
SOUS TOTAL CATEGORIE B	117 300	347,2
CATEGORIE A		
Hors classe des PEGC	1 000	43,7
Fusion des deux premiers grades des corps d'attachés et assimilés	33 000	373,8
SOUS TOTAL CATEGORIE A	34 000	417,5
TOTAL DES CATEGORIES A + B + C	321 547	1 378,95

FONCTION PUBLIQUE DE L'ETAT
 PROTOCOLE D'ACCORD DU 9 FEVRIER 1990

5ème TRANCHE - 1er AOUT 1994

	EFFECTIF CONCERNE	COUT (millions de francs)
CATEGORIE C		
Revalorisation de l'Echelle E2 (2ème tranche) Indice terminal IM 316	268 000	452,7
Revalorisation de l'Echelle E3 (2ème tranche) Indice terminal IM 338	90 700	102
Reclassement des OP/1 en maîtres ouvriers	4 200	16,4
Transposition aux gradés et gardiens de la paix, enquêteurs de la police nationale et surveillants de prison	108 000	53,3
SOUS TOTAL CATEGORIE C	470 900	624,4
CATEGORIE B		
Fusion des 2 premiers grades (3ème tranche de repyramidage) Corps comportant un saut de grade	82 000	136,6
Création de la catégorie B type technique (sans saut de grade) - 2 premiers grades	8 000	74,5
Création d'un nouveau grade terminant à l'IB 612 (IM 511) 1ère tranche pyramidage à 5%	5 000	219
Création du 2ème grade des infirmières CII 1ère tranche à 5%	250	5,2
Transposition aux atypiques et aux policiers	17 000	109
Accès des instituteurs au corps de professeurs des écoles (5ème tranche)	5 000	139,3
SOUS TOTAL CATEGORIE B	117 250	683,6
CATEGORIE A		
Création du grade terminal des ingénieurs des travaux et relèvement à l'IB 1 015 de l'indice terminal des chefs d'arrondissement	2 000	41,5
SOUS TOTAL CATEGORIE A	2 000	41,5
TOTAL DES CATEGORIES A + B + C	590 150	1 349,5

III. THE UNITED KINGDOM

In the United Kingdom, the 80s were marked by major structural changes in the public sector affecting its contours and the procedures for determining of the remuneration of civil servants. These reforms had a direct impact on the method of calculation of the specific indicator and on evolution of the control indicator. We shall start by examining the resultant "breaks" in the calculation of the control indicator and attempting to ascertain the extent to which they can explain its increasing divergence from the specific indicator. We can then see if the evolution of the specific indicator appears to be consistent with the trends observed in the public sector.

3.1. Study of the control indicator

The period since 1990 has seen a striking rise in the control indicator (1990 = 100; 1994 = 165.6 in real terms) in contrast with the stability of the specific indicator (1990 = 100; 1994 = 105.5). The divergence between the two indicators was particularly striking in 1992 and 1993.

This evolution corresponds to a period of major reductions in the numbers recorded in S61, mainly as a result of the transfer of a substantial number of employees from the "Health" (NHS) sector in connection with the establishment of NHS trusts and their reclassification, thenceforth, under the heading of public enterprises. This very big reduction of the numbers of employees has been underway since 1992. The following table plots the changes in numbers in sector S61, the numbers in NHS trusts and the sum of the two, and enables us to show that the reduction of numbers in S61 is very largely attributable to the exodus to the trusts, albeit in the context of a general downward trend in the numbers of persons employed in the Central Government sector.

Table 3.1: Numbers of employees in S61 and NHS trusts

	Staff S61 (1)	NHS trust (2)	S61 + NHS trusts
1990	2305	-	2305
1991	2183	124	2307
1992	2006	314	2320
1993	1582	662	2244
1994	1215	966	2181

(1) National Accounts 1995 (Central Government)

(2) Amanda Hughes, Employment in the Public and Private sectors, Economic Trends, No 495, January 1995.

The reduction of the number of persons employed will affect the evolution of remunerations only if the average remuneration of those who are leaving the service is very different from that of those who are remaining. Two factors must be taken into account in this context. The first is part-time work. The data are supplied in the form of numbers employed and not in the form of full-time equivalents. If the ratio of part-time to full-time employees is higher for the employees who are classified under the NHS trust heading than

the ratio for the remainder of S61, that will obviously bring about an automatic rise in the average remuneration⁷.

3.1.1. Ratio of part-time employment in NHS trusts to part-time employment in S61 as a whole.

In the following table, we have shown the total numbers of persons employed (head count), the full-time equivalents and the relationship between these two figures as an indicator of part-time employment over the period 1985-1994 for NHS trusts compared with the rest of sector S61. The figures confirm that the proportion of part-time employees is indeed higher in the health sector.

Table 3.2. Evaluation of part-time employment in the Health sector, compared with the public sector

	NHS			Central government (S61)		
	Staff	Full time equivalence	Ratio	Staff	Full time equivalence	Ratio
1990	-	-	-	2305	2076	1,11
1991	124	102	1,21	2183	1967	1,1
1992	314	256	1,22	2006	1823	1,1
1993	662	540	1,22	1582	1467	1,07
1994	966	788	1,22	1215	1087	1,11

Source: Amanda Hughes, op cit.

3.1.2. Impact of the transformation of the structure of S61 on average remuneration

S61 comprises three major sectors, namely national defence (HM Forces), health (NHS), and central administration (Other central government), in which average per capita remuneration is very different and whose relative weight has undergone a considerable change over the period under review. In Table 3.3, we have shown the evolution of the numbers of employees in these three components of S61 for the years 1983-1993, in absolute numbers (mid-year total numbers of employees).

The figures show a very considerable reduction in the proportion of employees under the health heading, from 51.5% to 33.3%.

From the total wage bills in the National Accounts, we can recalculate, for each sector, the evolution of per capita wage costs for the total numbers of employees (Table 3.4). The figures show the health sector occupying a position between National Defence, with the highest average per capita wage bill, and Other central government. It is therefore not certain, a priori, that the rise in average remuneration in sector S61 can be attributed to the relative reduction of the weight of the health sector alone. In order to have some idea of this impact, we have recalculated a theoretical remuneration in 1993 based on the average remuneration observed in the three sectors in that year but using the weights for 1983 (i.e. the breakdown between the three sectors on that date). The theoretical average remuneration calculated in this way is not very different from the average observed in 1993 (a difference of 0.05% between the two figures). The increasing weight in S61 of the

⁷ It is assumed, here, that the number of hours worked is more or less the same before and after the change of status.

National Defence Sector, the one with the highest average levels of remuneration was offset by the increasing proportion of the total numbers of employees to be found under the Other central government heading, where average remuneration is lowest. In the period under review, the changes in the relative weight of the three sectors in the composition of S61 did not give rise to any rise in remuneration connected with this particular structural effect.

Table 3.3. Breakdown by sector of total numbers of employees in Central Government. Period 1983-1993.

	HM Forces	NHS	Other	Total	HM Forces%	NHS%	Other%	Total %
1983	322	1227	835	2384	13.5	51.5	35.0	100
1984	326	1223	810	2359	13.8	51.8	34.3	100
1985	326	1223	811	2360	13.8	51.8	34.4	100
1986	322	1215	800	2337	13.8	52.0	34.2	100
1987	319	1212	781	2312	13.8	52.4	33.8	100
1988	316	1228	778	2322	13.6	52.9	33.5	100
1989	308	1226	781	2315	13.3	53.0	33.7	100
1990	303	1221	781	2305	13.1	53.0	33.9	100
1991	297	1098	788	2183	13.6	50.3	36.1	100
1992	290	916	800	2006	14.5	45.7	39.9	100
1993	271	530	789	1590	17.0	33.3	49.6	100

Source: national accounts

Table 3.4 Per capita wage costs in the three subsectors of Central Government. Period 1983-1993, nominal value.

	HM Forces	NHS	Other	Total
1983	186.988	71.108	68.048	85.688
1984	195.215	72.535	74.173	90.051
1985	212.178	76.141	79.248	96.000
1986	227.484	81.835	83.788	102.572
1987	234.232	91.724	96.569	11.302
1988	246.741	99.902	103.342	121.038
1989	269.513	111.069	112.420	132.605
1990	297.888	122.031	126.133	146.538
1991	338.013	135.984	139.429	164.714
1992	367.690	154.236	152.500	184.402
1993	401.328	206.264	159.823	216.465

On the other hand, the scale of the changes observed in the make-up of the labour force can provide an explanation of above-average rises in remuneration per capita within each subgroup. In fact, according to the Central Statistical Office, the remuneration of employees who are no longer classified in the sector S61 of the national accounts, either as a result of the creation of NHS trusts or as a result of decentralization and contracting out was lower, on average, than that of the employees who remained in that sector.

3.1.3. Influence of dates of calculation

The calculation of trends may be perturbed by yet another factor. Whereas the numbers of employees recorded in the National Accounts are the mid-year figures, the total wage bill corresponds to the total disbursed in the twelve-month period. So if an NHS trust is created before July, the total wage bill of the health sector shown in S61 will include the amounts

disbursed prior to its creation, but the corresponding numbers of employees will be deducted in July, and that will obviously inflate the average per capita remuneration.

In the period since 1990, the evolution of gross per capita remuneration in these three subsectors, measured in terms of the data relating to S61, has been marked by a series of radical changes in the composition of the workforce of each subsector, and it is impossible to isolate their effects. That being so, the control indicator can no longer serve as a pertinent reference for comparison with the specific indicator as calculated for a constant reference population.

3.2. The specific indicator

The reforms in the public sector in the UK have also modified the systems for the determination of changes in remuneration by decentralizing the negotiation of process and accentuating the individualization of rises in salaries⁸. To our knowledge, the UK does not have an indicator which is comparable with the index of civil service salaries in France, i.e. an index of remuneration based on a constant structure.

To evaluate the pertinence of the specific indicator, we use an indicator of the results of negotiations in the Public Sector. The underlying idea is that the specific indicator, by recording changes on the basis of a constant structure, must give a close approximation of the general trend of remuneration. We have an average annual rate of negotiated upward adjustment of salaries in the Public Sector for 1985 to 1990, but the rate is not available for subsequent years. In Table 3.5, we have compared the real average annual rates with the trend of the specific indicator. There is a year-by-year divergence between the two indicators, but that may be due to time-lags between the dates of negotiations and the period (July) for the specific indicator. Cumulatively calculated, for the five-year period, the level of the specific indicator is slightly higher than that of the negotiated salary index.

Table 3.5. Real annual change in the specific indicator and the negotiated salary index in the Public Sector 1985-1990

	Specific Indicator	Negotiated Wages (1)
1985	0,982	0,995
1986	1,041	1,025
1987	1,008	1,021
1988	1,025	1,009
1989	0,981	1,007
1990	1,027	0,997
Cumul	1,064	1,055

(1) Source: New Earnings Survey

For a more extended and more recent period we only have data indicating, for the main professional groups, the average annual rate of increase resulting from negotiations and the average annual rate of increase actually observed for the years 1980-1992.

⁸ Cf. Prof. Robert Elliott's report on Pay Reform in Sweden and the UK and the adjustment of Commission salaries for a description of these reforms.

Table 3.6. Real annual average rate of increase. 1980-1992

Civil service	Earnings Increase	Settlement
Grade 5 - 7	-	-0,4
EO's Hommes	1	-0,2
EO's Femmes	0,9	-0,2
Clerks Hommes	1,2	-0,5
Clerks Femmes	1,3	-0,5
Tax Inspectors H	1,3	-0,3
Scientists H	1,7	1,2

Source: Treasury Occasional Paper No 3.

One can observe a consequent divergence between negotiated rises in remuneration and real rises in remuneration which may be attributable to career-related factors or increases in bonuses. Generally speaking, negotiated rises in remuneration do not enable the recipient to maintain his/her purchasing power (reduction of approximately 0.3%), whereas the actual rate of increase in remuneration is positive, with an order of magnitude of 1%.

These data are not directly comparable with the calculation of the specific indicator and merely enable a qualitative appreciation. For the period 1980-1992, the average real annual rise in the specific indicator is equal to 0.43%, i.e. at an intermediate level between negotiated increases in remuneration and actual increases. This might possibly be attributable, in the case of the UK, to it having become increasingly difficult to measure the trend of basic remuneration for a given position in the service⁹.

Hence, part of the information collected for the specific indicator could include certain elements of the trend of actual remuneration, i.e. a more substantial rise in basic remuneration than the rise foreseen in the negotiated agreements, in the form of an increase in the average salary of the category concerned.

3.3. Conclusion

In conclusion, for the UK, the application of Article 65 is fraught with problems. Firstly, the control indicator, constructed for a reference population which has undergone a considerable number of changes over the period, cannot constitute a reliable means of measurement of the trend of per capita remuneration. It does not enable us, in particular, to distinguish between structural effects and salary scale effects. Secondly, the very construction of the specific indicator is getting more and more out of line with institutional reality in the United Kingdom¹⁰. The use of the specific indicator method therefore requires the collection of information on a much broader front from the agencies and departments concerned.

⁹ This difficulty will doubtless become more acute with the decentralization of negotiations and the disappearance of common salary scales of a given category of officials.

¹⁰ Cf. the report by Prof. Elliott, *op cit*.

IV Italy

4.1. The institutional context

In Italy, as in most other European countries, the period between 1980 and 1990 was marked by major institutional changes affecting the remuneration of officials. The period was notable for the appearance of two texts in particular¹¹:

1. The "Legge Quadro" (Ln. 93/1983), reforming both the system of classification of employees and the system of salary negotiations;
2. The text of the "Accordo sul costo del lavoro" (D1 n 29/1993) modifying the methods used for fixing salaries. But this agreement will not enter into force until the end of the period under review and cannot, therefore, have any impact on the trends of civil service remuneration which we have examined.

There are many similarities between the Italian and French systems of organization of the civil service sector. Recruitment is by competition and the civil servants of both countries are subdivided into 8 grades on the basis of their educational qualifications and their professional experience. Promotion is based on seniority or internal competitions.

The remuneration of Italian officials is composed of several elements, each with a separate set of rules for its evolution:

- Firstly, there is the basic salary. Salary increases are generally negotiated on a collective basis and signed at different levels (inter-sectoral and sectoral). Since 1993, the provisions relating to remuneration (which were formerly concluded for a three-year period) have been signed for a period of two years. In contrast with France, collective negotiations are held in each major sector (8 in all). This means in practice that the negotiations are not all conducted at the same time and that the increases in remuneration can differ from sector to sector. Finally, instead of being determined by collective bargaining, the remuneration of certain groups of officials ("dirigenti generali", corresponding to a very small number of high-level posts including those of judges and university professors), are fixed by parliamentary decision.
- Secondly, there is a seniority bonus (discontinued in 1995) which can be re-negotiated at the sectoral agreement level.
- Thirdly, there is an index-based bonus, directly tied to the price index (but discontinued in 1992-93).
- Finally, there are various bonuses and allowances linked, in theory, with the post occupied by the official, the particularly difficult conditions under which the official has to work and the possession of special qualifications. The existence of these

¹¹ Cf. the report by Dr Claudio Lucifora, "Art. 65: Examination of National Systems of Remunerating Civil Servants. The Case of France and Italy", September 1995.

bonuses has enabled the payment of more generous increments than those negotiated by collective bargaining. They may differ from sector to sector.

4.2. Study of the control indicator

Comparison of the cumulated evolution of the Eurostat indicator with that of the control indicator between 1980 and 1993 shows a difference of approximately 35 points (control indicator 1993 = 137.7, base 100 in 1980; gross specific indicator 1993 = 99.8, base 100 in 1980).

Part of this difference stems from differences in definition. The specific indicator measures changes in gross salary; the control indicator measures changes in wage cost per capita, including employers' social contributions. Italy (like France) saw a substantial rise in employers' social contributions over the above-mentioned period, from 24.3% in 1980 to 29.5% in 1993. Allowing for this effect (see Table 4.1), the indicator of gross salary per capita works out at 123 in 1993 (base 100 in 1980), thereby reducing the degree of divergence, vis-à-vis the specific indicator, by approximately 12 points.

Once the effects of the employers' social contributions are filtered out, the steeper upward trend of the control indicator would seem to be mainly attributable in Italy (as in France) to some of the individual career effects resulting in a percentage rise in the wages bill that is greater than the percentage rise in the salary scale. Italy does not have (to our knowledge) a system of statistical measurement of this structural effect. It is generally recognized, however, that there has been massive recourse to accelerated promotions and reclassifications at higher levels, particularly in 1988, to compensate for the impact of a more restrictive policy with regard to remuneration.

4.3. Study of the specific indicator

In view of the above-mentioned effects, the control indicator would not seem to be the correct tool for checking the pertinence of the specific indicator. As in the case of France we have sought to use an indicator with a constant structure which is representative of variations in the pay scale.

Attention was drawn in an earlier report¹² to the very good correlation of an indicator established by the ISTAT and the specific indicator. The ISTAT index is an index with a constant structure (Laspeyres) which plots the evolution of remuneration negotiated or granted, broken down by subsector in accordance with the rules for the conduct of negotiations. These changes are calculated on a monthly basis. The aim is therefore to measure the revaluations of the salary scale independently of the individual carrier effects.

We have therefore taken the changes in this ISTAT index for the "MINISTERI" sector (the closest to the central administration concept) for 1982 to 1993, expressed as annual averages, on a nominal basis, and compared them with the changes in the specific indicator calculated by Eurostat. In order to eliminate the effects of differing dates (the ISTAT

¹² Eurostat B3, Analysis of the trend of the specific indicator, period 1980-1992, February 1993.

indicator records pay agreements as soon as it officially receives the texts emerging from the pay negotiations, whereas their implementation requires a little time (our conclusions are based on examination of the cumulated pay rise figures).

In Table 4.2 we have shown in the first two columns the ISTAT index, in terms of annual and cumulated variation, and the next two columns covering the price index are followed by data on Eurostat's specific index showing its real and nominal annual and cumulated variation. The diagram shows the cumulated evolution of the ISTAT index and the specific indicator, both in terms of nominal value.

The two indices are very close. The specific indicator was slightly higher than the ISTAT index up to 1988 but has fallen behind in recent years. In view of the differences in the reference populations of these two indices (it must not be forgotten that officials in the "dirigenti" category are included in the survey on which the specific indicator is based but not in the ISTAT "Ministerii" index, in addition to which the reference population of the ISTAT index is much broader than the sample used for the specific indicator), these divergences can be regarded as minimal. On the evidence of the comparison with this index, the specific indicator can be said to have provided a coherent record of the changes in the scale of remuneration of Italian civil servants.

Table 4.1 Allowance for the effect of employers' social contributions on the evolution of the control indicator

	Nominal wage bill per capita		% employers social contributions	Nominal per capita gross wages	Real per capita gross wages		Real specific indicator, cumul.	Real control indicator, cumul.
1980	13170	100	24.3	9969.7	100.0	100.0	100.0	100
1981	16979	128.9						
1982	19486	148.0						
1983	22600	171.6						
1984	25118	190.7						
1985	27424	208.2	25.9	20321.2	203.8	105.2	97.9	108.2
1986	29862	226.7						
1987	32654	247.9						
1988	36205	274.9	27.2	26357.2	264.4	115.5	98.3	120
1989	38796	294.6						
1990	45511	345.6						
1991	49307	374.4	27.9	35599.7	357.1	129.4	107.7	135
1992	51459	390.7						
1993	53102	403.2	29.5	37436.9	375.5	123.4	99.8	134.7

(1) Source: Italy, National Accounts

(1) Amministrazioni pubbliche (in thousands of lire)

Table 4.2. Comparison of the ISTAT indices with the gross specific indicator

	Indice "Istat Minister"		Gross specific indicator	
	annual nominal	cumul nominal	annual nominal	cumul nominal
1982		100.0		100.0
1983	113.5	113.5	116.8	116.8
1984	112.8	128.0	115.8	135.3
1985	107.7	137.9	106.0	143.4
1986	104.3	143.8	108.8	155.9
1987	108.7	156.3	107.1	166.9
1988	110.3	172.4	101.9	170.1
1989	112.9	194.6	106.1	180.5
1990	110.8	215.7	119.4	215.6
1991	106.7	230.2	104.2	224.7
1992	102.6	236.1	101.1	227.2
1993	100.9	238.2	101.0	229.5

As in the case of France, we can summarize the breakdown of the divergence between the specific and control indicators in the following table, for the period 1982-1993.

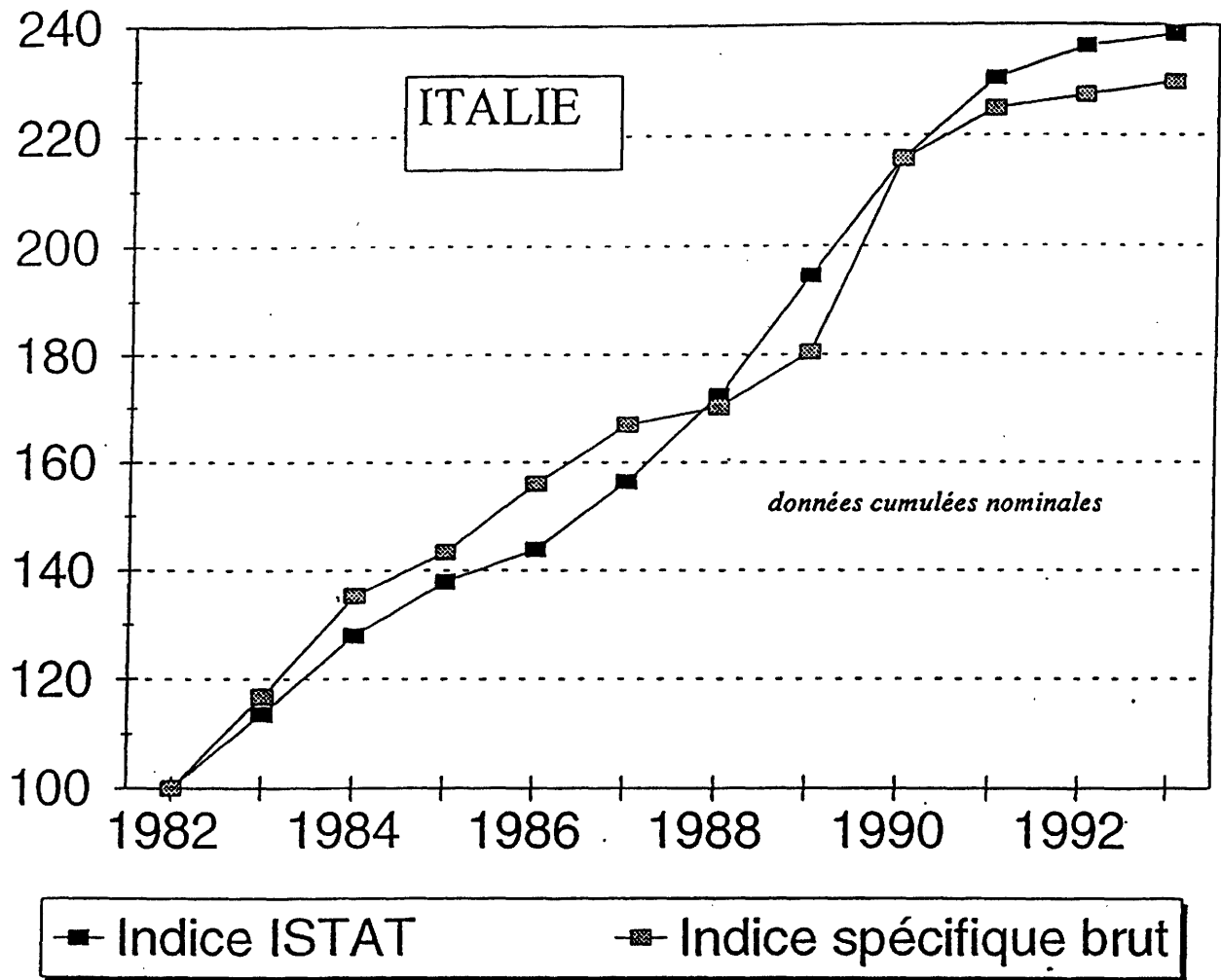
Table 4.3. Breakdown of the divergence between the specific indicator and the control indicator

	1982	1993	Difference to specific ind in points	Decomposition of difference % (42,5 = 100)
Control indicator	100	272	42,5	42,8
Gross Salaries	100	253,8	24,3	36,8
Barème of remunerations	100	238,2	8,7	20,4
Specific Indicator	100	229,5	0	

(1) Measured by the evolution of the ISTAT index.

The divergence between the specific indicator and the control indicator climbed to 42.5 points between 1982 and 1993. 42.8% of this divergence was due to the increase in employers' social contributions, 36.8% to the structural effect (seniority and qualifications) and higher bonuses, while the remaining 20.4% was due to the divergence between the trend of salary scales in the civil service as a whole, as measured by the ISTAT index and the specific indicator.

Figure 3



V. Germany

We will begin by describing the main characteristics of the salary determination system for German civil servants and will then attempt to identify the reasons for an increasing divergence between the specific indicator and the control indicator.

5.1. Characteristics of the procedures for determining the remuneration of civil servants in Germany

Posts in the German civil service can be occupied by three categories of employees, namely permanent officials ("Beamte"), who represent approximately 40% of government employees, staff employed under contract ("Angestellte") and workers ("Arbeiter").

The main characteristics of established officials ("Beamte") in the German civil service are as follows:

- guaranteed employment and pension;
- no salary negotiations (in contrast with "Angestellte" and "Arbeiter"); the remuneration and conditions of employment are unilaterally fixed by the government;
- no right to strike.

In practice, in spite of the inexistence of an automatic official procedure¹³, the general upward adjustments of the salaries of established officials are closely linked with those negotiated for the other categories of employees in the public sector.

These two elements are combined to determine the official's basic salary on one of four salary scales, one for officials in positions of high responsibility (scale B), one for the university sector (scale C), one for the judiciary (scale R) and one for the remainder (scale A).

Scale A is subdivided into four groups, each of which consists of a set of four steps on which the precise position depends on qualifications; new officials are generally recruited on the first step. Thus, for scale A, we have the four following subdivisions:

- A1 - A4: lowest level ("einfacher Dienst")
- A5 - A8: intermediate level ("mittlerer Dienst")
- A9 - A12: higher level ("gehobener Dienst")
- A13 - A16: highest level ("höherer Dienst")

There is a ceiling on promotions from one step to the next within a group; promotion to a higher step within the group is restricted to a limited number of officials from immediately below that step. For example, the number of officials in A11 is restricted to 30% of the numbers in A10, and the number in A12 is restricted to 12% of the numbers in A11. Officials are very rarely promoted from one group to the next.

¹³ Informal consultations are however held between officials and government representatives

In addition to individual promotions, there have occasionally been "collective promotions", i.e. the reclassification of a group of officials at a higher level (but without a change of group) to compensate for a higher workload or increased responsibility or possibly in response to pressure from certain groups of employees. Several groups were able to benefit from this type of measure in a few German "Länder" in the '70s. Such measures result in distortion in the structure in favour of the upper levels. In the '80s and '90s, this type of measure was adopted only in the case of nurses, who are not in S61 of the National Accounts.

The basic salary, as described above, is supplemented by a bonus for officials employed in ministries (at the Federal level and at the level of the individual "Länder") an annual holiday bonus ("Urlaubsgeld"), marriage allowances and family allowances and, for several groups of officials, bonuses linked with the type of work they do. All these bonuses are collective in the sense that they apply to every member of the group concerned. The amount of the bonus depends on qualifications and/or the family situation of the recipient.

This is a very uniform system, because the levels of remuneration are determined at a central level and apply to all officials, without any differentiation between their employers (Federal Government, Länder or Local Authorities). Pay rises are mainly in the form of general increases in salaries (revaluation of salary scales), and the same percentage rise is granted to all officials (the national, land or local authority levels, without regard for qualifications).

The evolution of the individual civil servant's pay is therefore shaped by the following elements:

Collective effects:

- general rises in basic salaries
- changes in the value of bonuses

Individual efforts:

- age (seniority) and family situation
- promotion to a higher step.

5.2. Main changes since 1980

The structure described above remained practically unchanged throughout the period covered by the study. In contrast with France, there were no reforms of the index positions (known in French as "positions indiciaires") which would have resulted in changes in the relative positions of the salaries of German civil servants.

There has been some talk, in the past two years or so, of bringing in a system of individualized bonuses for "Beamte", linked with their personal performance, but no concrete steps have yet been taken to that effect.

The main change in conditions of employment over the period under review was the reduction of the working week on 1 April 1989 (from 40 to 39 hours) and 1 April 1990 (from 39 to 38.5 hours). This was done without any reduction in the total compensation of officials; in other words, remuneration remained the same for a slightly reduced number of hours worked.

Finally, it must be noted that even if reunification has not yet had an impact on procedures for determining remuneration in the public sector in Germany or on the statistics collected by Eurostat, because the reference population is limited to the former Federal Republic, the prospects are that the trend of the S61 indicator could be affected in the future by the collection of the data for the whole of Germany. For the next few years, it seems desirable to carry on collecting the data simultaneously for the old and new reference populations until the aims of comparability of the annually recorded changes is actually attained.

5.3. Comparison of changes in the control indicator and the specific indicator.

The 1980 - 1994 period can be clearly divided, in the light of the evolution of the cumulated indices, into 2 subperiods:

- from 1980 to 1989, the two indicators coincided;
- from 1990 to 1994, the gross specific indicator recorded a slight reduction in purchasing power (1989 = 100; 1994 = 97.2), whereas the control indicator was significantly higher than the specific indicator (1989 = 100; 1994 = 108.2).

In contrast with France, Germany has neither an index with a constant structure for measuring changes in the pay scales of officials nor an indicator of structural effects equivalent to the French GVT. It is therefore not possible to measure the structural effects with an impact on average remuneration and to isolate them from the effects of variations in salary scales. So we can only put forward qualitative hypotheses.

Compared with France and Italy, Germany has not experienced a very striking rise in the proportion of the wage bill represented by employers' contributions, which rose from 20.6% in 1980 to 22.2% in 1994. If we recalculate a control indicator without employers' contributions for the period 1990-1994, we obtain a cumulated index of 107.8 (real terms; 1980 = 100), representing a 0.4 point reduction of the diversion from the gross specific indicator.

- to the extent that the numbers of employees recorded by the control indicator are not full-time equivalents, the reductions of the length of the working week in 1989 and 1990 cannot affect the rate of growth of average remuneration per capita.
- if we examine the evolution of the numbers of employees (in S61) for the period 1980-1994 (fig. 4) we can see there was a very marked change in 1989. After a period of more or less steady growth up to that point, the trend was reversed, and the numbers declined sharply over the period from 1989 to 1992 and carried on falling thereafter, albeit more slowly. At the end of the period under review, the number of salaried officials was more or less the same as in 1982. Sector S61, as counted here, corresponds to the total number of salaried officials employed at the level of Federal Government for the Länder, whatever their status, in the territory

of the former Federal Germany. It includes, in particular, all military personnel and all persons engaged in military service or national civilian service ("Zivildienst"). It does not include railway or postal workers. The downtrend observed from 1989 onwards is linked with the declining number of persons engaged in military service or "civil" service.

According to the German statistical services, the two main factors (in addition to the effect of the upward adjustments of salary scales) to which the growth of the control indicator could be attributed are:

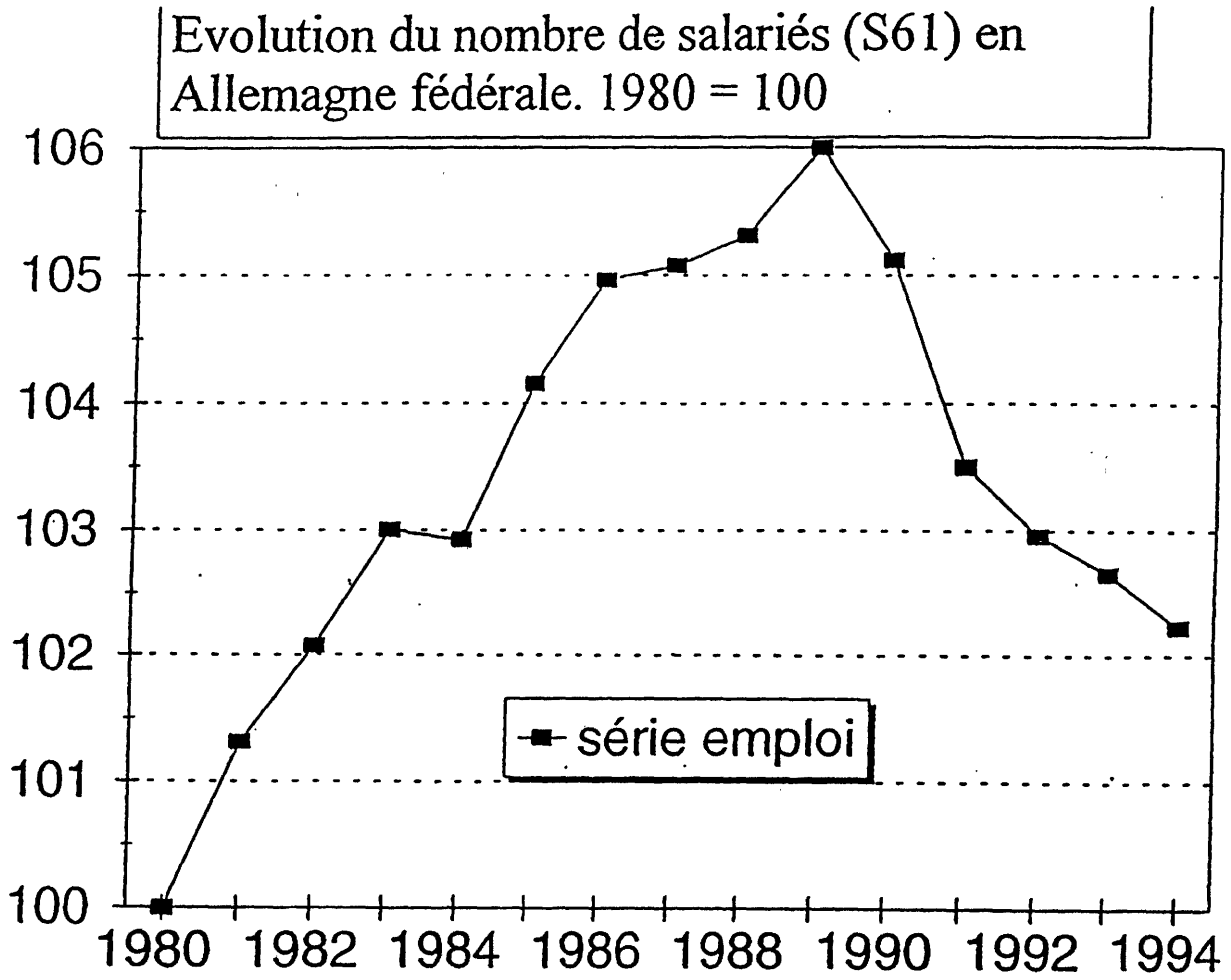
- in Germany, as in France and Italy the factors underlying the evolution of the remuneration of the individual civil servants are general pay rises, the adjustment of bonuses, seniority and promotions. This last effect corresponds to the structural effects, from which we must filter out, above all, in a career-based system, the negative effect corresponding to the net balance of persons entering and leaving the service (the former having lower salaries than the latter). In the phase when the number of civil servants was rising, therefore, the negative effect of newcomers on the average salary would have compensated for the positive effect of seniority and promotions. The proximity of the specific indicator and the control indicator would therefore correspond to a zero structural effect. In the employment contraction phase, the positive structural effect came fully into play. This effect was accentuated by the fact that the remuneration of the persons carrying out their military service or "Zivildienst" is considerably lower than the average for all other employees in the public sector.

In conclusion, insofar as the 1980-1994 period is concerned, the divergence between the specific indicator and the control indicator which appeared in 1989 is linked with a positive structural effect attributable to the reduction in the number of persons under the military service heading.

In the years to come, the use of the specific indicator method may well become a more delicate issue in view of the existence of the following two elements:

- the introduction, in due course, of elements of remuneration linked to individual performance;
- the integration of the former German Democratic Republic, where the structure of the workforce and the levels of remuneration in the public sector are very different from those observed in the former Federal Republic.

Figure 4



SUMMARY OF THE RESULTS OF THE STUDY

1) In the case of France, the divergence between the specific indicator and the control indicator is attributable to the following four elements:

- the rise in employers' social contributions
- the structural effect (net effect of seniority and qualifications or GVT balance). This effect is positive and increasing in the '90s as a result of the acceleration of civil service careers.
- the effect of rising bonuses
- the divergence between the revaluation of salary scales (measured in France for all civil servants, excluding bonuses) and increases in remuneration measured by the specific indicator.

The following table summarizes the evolution of these four components:

	1980	1994	Divergence from the SI in points	Breakdown of the divergence in % (61.8=100)
Total wage bill	100	238.9	61.8	14.9
Gross salaries	100	229.7	52.6	30.4
Gross salaries excluding GVT	100	210.9	33.8	22.7
Gross salaries excluding GVT and bonuses (1)	100	196.9	19.8	32.0
Specific indicator	100	177.1	0	

(1) Measure by the evolution of the ISTAT index.

In short, the specific indicator diverged from the control indicator by 61.8 points between 1980 and 1994. 14.9% of this divergence was due to the increase in employers' social contributions, 30.4% to the structural effect (seniority and qualifications), 22.7% to the growth of bonuses and 32% to the divergence between the evolution of pay scales in the civil service in general and the evolution measured by the specific indicator.

This last divergence is partly the result of differences in reference populations (with teachers accounting, in particular, for almost 80% of categories A and B). The latter benefited from upward adjustments of their salary scales between 1983 and 1991.

In the absence of major measures affecting specific categories, the revaluation of salary scales is essentially in the form of general measures involving an upward adjustment of the value of the point. That corresponds to the situation in 1993 and 1994. And in that case, the way in which the specific indicator records upward adjustments of salary scales is similar to the way in which they are traced by the INSEE index. But the specific indicator suffers from the disadvantage of a narrow reference population and the fact that it covers only a limited number of groups. The problem could possibly be overcome by asking the INSEE to calculate an index excluding teachers (an annual calculation which has hitherto not been made) in order to give us an evaluation of the part played by the category-oriented measures applicable to civil servants other than teachers which would not have been recorded in the specific indicator.

2) The breakdown of the divergence between the specific and control indicators in Italy, for the period 1982-1993, can be summarized in the following table (which is similar to the table for France).

	1982	1993	Divergence from the SI in points	Breakdown of the divergence in % (42,5=100)
Total wage bill (control indicator)	100	272	42,5	42,8
Gross salaries	100	253,8	24,3	36,8
Salary scales	100	238,2	8,7	20,4
Specific indicator	100	229,5	0	

(1) Measured by the evolution of the ISTAT index.

The specific indicator diverged from the control indicator by 42.5 points between 1982 and 1993. 42.8% of this divergence was due to the increase in employers' social contributions, 36.8% to the structural effect (seniority and qualifications) and increases in premiums, and 20.4% to the divergence between the evolution of pay scales in the civil service as a whole, as measured by the ISTAT index, and the evolution measured by the specific indicator.

3) In the case of the **United Kingdom**, the application of Article 65 is fraught with problems. Firstly, the control indicator, constructed with a reference population which has changed considerably over the period, is not a reliable means of measurement of changes in remuneration per capita. It does not enable us, in particular, to differentiate between structural and scale effects. Secondly, the very structure of the specific indicator is increasingly out of line with institutional reality in the UK. Hence the need, if the use of the specific indicator is to continue, to ensure that the data are collected in future on a much broader front from the various agencies and departments concerned.

4) In the case of **Germany**, the divergence between the specific indicator and the control indicator which appeared in 1989 was linked with a positive structural effect attributable to the reduction in the number of persons recorded in S61 under the military service heading. German civil servants' salaries were notable for the absence of structural changes over the period 1980-1994, for the parallelism of their evolution and the collective character of the upward adjustments of salaries or bonuses.

In the years to come, the use of the specific indicator method may become more open to question for the following two reasons:

- the inclusion, in due course, of elements of remuneration linked with individual performance;
- the integration in the method of the former German Democratic Republic where the structure of the workforce and the scales of remuneration in the public sector are very different from those observed in the former Federal Republic.

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EUROSTAT REPORT

Follow-up of 1994 review of the methodology

EUROSTAT has produced three reports that develop in more detail some aspects of the 1994 review of the methodology. They concern:

Consumption weights

Housing weights

Guidelines on the methodology of conducting surveys

They have been presented to the Art.64 Working Party and have received their general approval. Specific comments from Germany and the Netherlands are included as an annex.

EUROSTAT REPORT

Follow-up of 1994 review of the methodology

Consumption weights

A. INTRODUCTION

1. Among the topics discussed during and after the review of correction coefficient methodology early in 1994 the question of consumption weights was among the most important, and appeared to be one of the topics causing most concern.
2. The Staff Regulations Group of the Council and Art. 64 Working Party delegates expressed three principal concerns:
 - (a) several delegates felt that the system of calculating specific weights for EC officials was too complex, and that use of the national weights would be simpler.
 - (b) There was an impression that a weighting pattern specific to international officials, giving more weight to the items which tended to be purchased more by international officials than by the average person, would be bound to result in a higher correction coefficient than if the weighting pattern appropriate to the national population were used. This would supposedly exert a constant upward spiral effect on EC officials' salaries.
 - (c) Some concern was expressed over the treatment of response bias, and the general problem of sampling, in the EC officials' family budget survey (FBS).
3. During 1995, Eurostat conducted a Brussels FBS to replace that of 1989. The results from this survey (this report has been written before final data were available) will provide a viable new basis for re-calculating the important reference-city weights. The improvement of the FBS questionnaire design has led to a higher response rate and accuracy of the data.
4. Eurostat has already raised at Art. 64 WP meetings the question of how to conduct FBSs on small populations of EC officials in certain duty-stations. (See Docs ART 64/74 (Feb. 1993), Art 64/76 (June 1993), Art 64/82 (May 1994), Art 64/94 (Nov 1994)). Some pragmatic solutions were adopted in the paper Art 64/95/5 of Feb 1995 which have been implemented for those places where not enough responses are obtained.
5. This paper presents the relevant arguments and counter-arguments concerning the topics in paragraphs 2 to 4.

B. SPECIFIC EC OFFICIALS' WEIGHTS OR NATIONAL WEIGHTS?

6. Price indices - whether measuring changes over time (consumer price indices) or over space (purchasing power parities) measure the impact of price changes on a particular group of consumers. A national CPI might, for instance, aim to measure the impact of price changes on the typical household - those somewhere around the middle part of the income range. The weights for such an index would relate to the expenditure pattern of the typical household.

Such an index might give quite different results from an index aimed at measuring the impact of price changes on, say, lower income households, where the weights would relate to the typical expenditure pattern of such a household. Several EU member states publish a range of CPIs which illustrate this point. Each index has its own particular use. The first type might be used for indexing wages, while the second type might be more suitable for indexing social security benefits.

7. The essential point is that an index is constructed for a particular purpose, and its precise construction will depend on that purpose. In the case of the very specific purpose of calculating spatial indices for EC officials' cost-of-living adjustments, there can be no doubt that on technical grounds the weights should reflect the expenditure pattern of the average EC official. To use, say, the weighting pattern of the average national household could give a different, and quite inappropriate, result. The information required to calculate such an index would certainly be simpler to obtain, but that would not make it correct.

C. DOES THE USE OF A SPECIAL WEIGHTING LEAD TO UPWARD BIAS?

8. This immediately leads to the practical question of what are the differences between the weights used for international officials and national CPI weights, and could they lead to an upward spiralling effect on EC officials' salaries?

Table 1 below shows the weights at a high level of aggregation which are used to calculate National CPIs, together with the weights derived from the last Eurostat FBS on international officials in several duty stations.

Table 1 - National and international weights

Group	Belgium		France		Germany		Italy - Rome		Italy - Varese		Netherlands		United Kingdom	
	National	Internat.	National	Internat.	National	Internat.	National	Internat.	National	Internat.	National	Internat.	National	Internat.
1) Food, beverages and tobacco	201.15	153.53	187.80	133.60	163.58	153.20	199.86	172.60	199.40	178.50	151.63	152.10	176.93	170.70
2) Clothing and Footwear	85.80	65.59	61.69	102.50	79.93	63.80	97.78	74.40	106.46	80.80	67.97	66.20	56.20	57.90
3) Housing, Heating, Lighting of which rents	195.25	187.52	202.91	229.80	253.51	205.60	158.45	189.80	96.69	172.20	190.11	191.90	194.32	205.70
4) Furn., Clean., Hous. art.	71.75	151.72	140.63	188.80	179.65	172.40	106.45	156.40	41.51	124.20	140.24	156.10	123.30	168.19
5) Healthcare costs	72.50	137.10	75.61	110.20	50.24	114.70	95.50	117.00	119.80	127.50	68.11	123.40	64.99	104.20
6) Transport and Communications	41.85	15.35	107.37	30.70	83.72	17.80	64.15	18.60	27.69	18.40	115.96	11.30	15.14	9.80
7) Entert., Leisure, educ. and cult.	164.45	203.50	162.57	163.20	104.53	191.40	123.12	173.50	144.61	178.20	136.35	208.40	168.20	185.40
8) Other goods and services	85.05	84.34	77.10	109.80	89.07	87.00	89.69	98.20	107.42	86.60	104.03	96.50	103.01	119.00
TOTAL	153.95	153.07	124.95	120.20	175.42	166.50	171.49	155.90	197.94	157.80	165.84	150.20	221.20	147.30
	1000.00	1000.00	1000.00	1000.00	1000.00	1000.00	1000.00	1000.00	1000.00	1000.00	1000.00	1000.00	1000.00	1000.00

SOURCES: National weights - Eurostat elaboration on the NSIs' CPIs. The figures should be treated with some caution because the expenditure group classifications are not fully comparable.

International weights - Eurostat Family Budget Surveys amongst European and international staff

Analysis of the data in table 1 through the calculation by expenditure group of the average and standard deviation corresponding to national and international consumption structures permits the drawing of two important conclusions:

- Firstly, national consumption patterns do differ from international ones.
- Secondly, the set of international officials' consumption patterns for each duty station are more homogeneous in general than those of the national populations.

9. Table 2 shows the average of the 7 national structures and of the 7 international ones. The weights used for the weighted average are national adult (over 18 years) population and the number of international officials.

Table 2 - Average structures

	Unweighted Average			Weighted average		
	National	Internat.	Diff. (%)	National	Internat.	Diff. (%)
1) Food, beverages and tobacco	182.91	159.18	-12.98	179.40	152.75	-14.86
2) Clothing and Footwear	79.40	73.03	-8.03	74.72	70.27	-5.95
3) Housing, Heating, Lighting	184.46	197.50	7.07	205.99	193.78	-5.93
of which rents	114.79	159.67	39.10	139.10	157.18	12.99
4) Furn., Clean., Hous. art.	78.11	119.16	52.56	69.52	130.15	87.22
5) Healthcare costs	65.13	17.42	-73.25	70.67	17.19	-75.68
6) Transport and Communications	143.40	186.23	29.86	136.88	196.37	43.46
7) Entert., Leisure, educ. and cult.	93.62	97.35	3.98	90.31	88.85	-1.61
8) Other goods and services	172.97	150.14	-13.20	172.52	150.64	-12.68

10. Comparison of the averages highlights some relevant differences between the two kinds of structures. This is expected both from economic theory and from considerations of common sense. Firstly, it is a fact that the average international official receives a higher salary than the national average. This is true of expatriates generally, and of expatriate government officials in particular. Secondly, it is a well-known economic fact that patterns of expenditure vary according to income: a specific instance is the so-called Engel's law, which states that expenditure on food, relative to total expenditure, declines as income rises. This effect can be clearly seen in Table 2. Thirdly, it is self-evident that expatriates (and most of the international staff in Brussels are expatriates) will tend to have different patterns of expenditure from the domestic population, even at the same level of income. For instance, they will tend to spend relatively more on transport and telecommunications (visits and calls to home country). This effect can also be seen in Table 1.
11. Table 3 shows the standard deviation of the 7 national structures and of the 7 international ones, using the same weights as for the average.

Table 3 - Standard deviation values

	National	Internat.	Diff. (%)
1) Food, beverages and tobacco	18.14	14.43	-20.44
2) Clothing and Footwear	17.29	13.87	-19.79
3) Housing, Heating, Lighting	44.30	16.93	-61.78
of which rents	42.91	18.62	-56.61
4) Furn., Clean., Hous. art.	21.13	10.27	-51.42
5) Healthcare costs	36.17	6.31	-82.56
6) Transport and Communications	22.04	15.00	-31.95
7) Entert., Leisure, educ. and cult.	10.48	12.05	14.98
8) Other goods and services	28.48	13.48	-52.65
Average (unweighted)	24.75	12.79	-38.20

All the groups of expenditure, with the exception of group 7, show less dispersion for international weights than for national ones. This is interpreted as international weights are more homogeneous than the national ones. In other words international officials tend always to spend their money in a similar way, irrespective of the place where they are stationed.

12. The fact of having a specific weighting pattern does not, and cannot in itself, lead to a generally upward bias in the trend of the resulting parities. For this to occur, it would be necessary to show that the average price ratios between the various duty-stations and Brussels increased more for those items where weights are higher than in the Belgian CPI and less for those items where weights are lower than in the Belgian CPI. In other words, referring to Table 1, column 1, parities would only show an upward trend if the prices of groups 4 and 6 regularly *increased* in other duty stations *relative* to Brussels; and/or if the prices of groups 1, 2 and 5 regularly *fell* in other duty-stations *relative* to Brussels. There is no reason to suppose that these specific conditions would occur; it is entirely unlikely that any link whatever exists between relative weights and relative price changes.

The above conclusions have been tested by recalculating the correction coefficients for 1/7/1995 using the national weights from the duty stations shown in Table 1.

The results in Table 4 confirm that no systematic effects up or down can be expected using national instead of international weights. In fact for five places, the correction coefficients would be lower using national weights (France, Rome, Netherlands, London and Culham), and also for five places the correction coefficients would be higher (Berlin, Bonn, Karlsruhe, Munich and Italy - Varese. Note that in Germany and the UK a single set of weights is applied for all the duty stations). Furthermore, the combined effect - weighted averaged according to the staff in different countries- would be 1,3% higher if national weights were used.

Table 4 - Correction coefficient comparison using national and international weights

	Corr. Coeff. Intern. Weights	Corr. Coeff. National Weights	Diff. (%)
France	110.8	107.7	-2.8
Berlin	110.9	113.0	1.8
Bonn	100.8	103.7	2.9
Karlsruhe	100.0	103.7	3.7
Munich	110.2	113.7	3.2
Italy-Rome	81.7	81.3	-0.53
Italy-Varese	78.5	80.6	2.8
Netherlands	103.1	101.9	-1.1
London	100.7	90.2	-10.4
Culham	84.0	82.7	-1.6
Average %	86.1	87.1	+1.3

Correction coefficients have been calculated as at 1/7/1995

D. RESPONSE BIAS IN THE FAMILY BUDGET SURVEY

13. The purpose of the family budget survey (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 the various items. The overall relative amounts are then calculated on the basis of replies received.

14. Response bias could arise from

- (a) deliberate falsification by respondents in the perceived hope of influencing future correction coefficients in their favour;
- (b) inadequate statistical techniques.

These two aspects are discussed in turn.

15. The only way in which respondents in duty-stations could achieve a result intended to have the effect of increasing their correction coefficients would be to deliberately exaggerate their expenditure on those items believed to be the most expensive in a comparison with Brussels. (Altruistic respondents in Brussels might also achieve the same effect for their colleagues in duty-stations - but not themselves - by deliberate exaggeration in the opposite direction!). For such a strategy to be successful in practice, not only would the respondents need to be correct in their estimations of relative prices, but the relativities would need to remain for the five-year interval between FBSs.

16. Though it is always possible that some respondents do behave in this way, Eurostat simply does not believe that, first, the majority behave in this way and, second, that they have the detailed knowledge of the system and the sophistication required to effectively falsify the returns in this way. It is not therefore regarded as a source of bias.

E. STATISTICAL RESPONSE PROBLEM: BRUSSELS FBS

17. Possible sources of statistical bias are both more diverse and more plausible. A distinction first needs to be drawn between the (large) Brussels FBS and the much smaller surveys in other places. The size of the EC officials population in Brussels is large enough to obtain a response which is statistically viable, provided that an appropriately stratified sampling scheme is put in place. The recent Brussels FBS (1995) provided more than 700 questionnaires for use in the estimation of the weights, which gives a result which is statistically sound. Details of the sampling techniques followed and of the questionnaire used are given in the following paragraphs.
18. Eurostat invested a considerable effort into ensuring the success of the Brussels FBS held in 1995 in terms of response and accuracy. The main focus of attention was on the questionnaire itself, with the aim of simplifying it to improve the response rate and to yield more accurate results.
19. The previous questionnaire was a multi-purpose document. It was used for FBSs in all EU places of employment, including Brussels, and also in places outside Europe, where the number of respondents was supplemented by including the staff of EU embassies. The questionnaire design was therefore aimed at estimating weights using results obtained from very small samples. The practical effect of this was that most of the estimates were obtained through recall: in other words, respondents were asked to recall their expenditures over, generally, the past 12 months. Exceptions were made for certain more regular items, where the recall period was only one month, while for food and drink there was a daily diary section covering all such expenditure over a two-week period.
20. This reliance on recall was necessary because with very few respondents the pattern of expenditure which would have been reported in a two-week period on the more irregular and larger items was too unreliable to be grossed up to an annual estimate. Consider the case of domestic appliances such as a washing machine. If the typical household purchases a new washing machine every, say, eight years, then on average only 1 in 208 questionnaires ($8 \times 52/2$) would be likely to show such a purchase in any given 2-week period. It can be readily appreciated that with probabilities of this size, the resulting errors could be large. Suppose, for example, that by chance a particular FBS survey with exactly 208 respondents resulted in the reporting of 4 washing machines in a 2-week period. The grossed-up estimates would overstate the expenditure on washing machines by a factor of 4. The previous questionnaire needed to rely on recall not only for very large items like washing machines but also for relatively small items.
21. The possibility of obtaining a large number of questionnaires from the population of international officials in Brussels meant that a questionnaire designed specifically for a large sample, for use only in the Brussels survey, could be considered. If the questionnaire were redesigned in such a way as to increase the response rate from an already large population, the possibility arose of placing most items of expenditure in the daily diary section, and keeping to

an absolute minimum the larger items where recall was still necessary.

22. Even so, national FBS experience has shown that the recall capabilities of respondents declines sharply over time. The quality of data recalled over a period as long as 12 months is not likely to be high. A period of no more than 3 months is regarded as desirable. However, for the present type of survey, which is not a continuous one but is carried out only once every five years, a recall period covering only three months would not give viable results because of the seasonality of expenditure. The pattern of expenditure in summer is different from that of winter - and seasons such as Christmas bring their own special patterns. Ideally, the Brussels FBS needs to cover the whole year. The idea of carrying out 4 surveys, each covering a 3-month period, was considered but rejected as being administratively too complex. A compromise was reached in which a 2-stage survey would be held, covering consecutive 6-month periods. Careful thought was given to the type of expenditures which could safely be covered in the 2-week diary, and those which were considered too large and irregular for this treatment.
23. In the previous FBS questionnaire, the criterion for assigning a heading to the diary section or to one of the recall sections was the likelihood that a purchase of an item might be made in the 2-week period. In other words, items of low purchase frequency, even when of low value, were not assigned to the diary section. In practice, this resulted in the diary section being limited almost entirely to food and drink items.
24. But the purpose of the split method is not to distinguish between low and high frequency-of-purchase items, but to obtain the best estimate of annual expenditure at the group heading level. This implies the need to give special treatment to high-value (and thus, normally, infrequently purchased) items. This idea can best be explained by example. Consider first heading 20 - Goods for leisure, entertainment and culture. This covers a wide variety of articles, ranging from a single audio cassette costing under 500FB to a hi-fi system costing 50,000FB. Many people buy cassettes on several occasions during a year, and in a sample of 730 there are sure to be some recorded purchases in a given 2-week period. Grossing up the survey results by 26 will give a reasonable estimate, though not necessarily of high accuracy. But the aim is not to measure the annual consumption of audio cassettes, but the total value of consumption of all the items in heading 20. On the other hand, the purchase of hi-fi systems is relatively rare: in a typical year, perhaps only 100 households out of 1000 will buy one. On average, perhaps 4 of those households will buy one in a given 2-week period. But it may happen, by chance, that the actual survey sample results in any number between zero and 10 recording such a purchase. The effect of grossing such figures up by 26 to estimate the annual total will clearly have a much greater effect on the estimate for the total of heading 20 than any chance variability on the purchase of audio cassettes. It will also be clear that it is not the type of item that matters, but the value. Hence the criterion for recording expenditure in the diary section or the recall section of the new questionnaire will not be the types but their cost.

25. The diary section of the questionnaire covers all 29 headings; the recall section covers most of the headings but excludes those where large purchases are virtually impossible (newspapers etc). Respondents were asked to distinguish between purchases of less than or greater than 5,000FB. The latter were recorded in the recall section, whereas the former were recorded in the diary section. The estimation of annual expenditure per respondent was thus obtained by multiplying the totals in the diary section by 26, multiplying the totals in the recall section by 2, and summing the result.
26. The resulting annual totals from the survey sample was then grossed up to the population total using administrative data provided by DGIX. Suppose, for example, there are 50 B-grade, expatriate, married-with-children survey respondents. If the actual number of Brussels-based officials with these characteristics was 500, the survey totals was grossed up by a factor of 10. Similar grossing for all the other categories provided the population estimate.
27. A further important change was made which has significantly reduced the number of separate item headings for which expenditures had to be reported. The correction coefficient system calculates parities at a detailed level of 173 expenditure headings. Weights for each of these headings have in the past been estimated directly from the FBSs, which required respondents to state their expenditure on each of the 173 headings separately. Thus the questionnaire was very lengthy, and its sheer bulk was considered to deter response. Not only that, but the ability of the typical respondent to accurately classify expenditure into the appropriate headings must be questionable. The only advantage of having a long and detailed listing was that the headings themselves were detailed enough to act as an aide-memoire or prompt.
28. It was therefore decided to make, the response rate and accuracy of the questionnaires a major reduction in the number of headings. This was intended to improve. Bearing in mind the need for a certain degree of homogeneity, and the need for respondents to be able to judge clearly to which heading any particular type of expenditure relates, a grouping of 29 headings was reached. The weights resulting from these aggregated headings was subsequently disaggregated to the usual 173 levels using detailed weights from national sources. The rationale for this is that at the level of broad expenditure groups, such as those represented by the 29 headings, the consumption pattern of international officials differs significantly from the consumption pattern of the national population. But within these major groups, there is no reason to suppose that there will be significant differences between the two groups. Consider, for example, expenditure on clothing. It is already known that the typical international official spends a larger proportion of his expenditure on clothing than the average national household (probably due in large part to the income effect). But *within* the heading "clothing" it is not so likely that there will be larger differences in the proportions spent on men's, women's, and children's clothing and footwear.
29. A final important change to the FBS questionnaire was the reduction in supplementary questions such as household composition, household income, and detailed information about expenditure on housing-related services and domestic services. The section on out-of-area expenditure was also simplified.

Little of this information was used in the past, its main purpose being, in principle, to act as a check on the other data. But the intrusive nature of some of these questions must have deterred response.

30. The net effect of the changes described above is to reduce the physical size of the questionnaire by two-thirds, from 46 pages to about 15. This in itself, it is believed, will encourage response: the previous questionnaire was simply too daunting.
31. To increase the accuracy of responses Eurostat felt it was desirable to identify a group of volunteer participants. Over 1,000 Commission staff expressed their willingness to participate in the first stage. To assist them in recalling their expenditure on large items in the 6-month period, they were provided with a simple diary to note down such expenditures. This was also expected to help in "engaging" them in the survey, thereby reducing the likelihood of drop-out at a later stage. For the second stage, the population coverage was extended to the Brussels staff of the European Parliament, other EU institution staff, and the staff of the Co-ordinated Organisations (NATO etc). The actual number of respondents was 772 with 730 valid questionnaires finally used in the estimation of the weights. This figure is clearly superior to the 1989 FBS based on 450 valid questionnaires and gives much more reliability to the 1995 weights.
32. The method followed to impute rents in the 1995 Brussels FBS has been to associate the average rent value of predetermined classes to all the questionnaires belonging to the same class of owner occupied dwellings. The classes were built on the basis of relevant housing characteristics such as type of house, size and existence of garage. This procedure is in line with the Commission decision of 18.7.1995 (JO L186 of 5.8.1995) on the estimation of imputed rents, which recommends using stratification characteristics closely connected with housing and the use of real rents.
- Given the sample size constraints, not all the possible classes have been used but only those likely to have different average rent values. The cross classification type/garage was selected for small and medium apartments (up to 2 bedrooms) while type/size was applied for big apartments and houses. This procedure takes into account the typically different housing structure between owners and tenants apparent from the 1995 Brussels FBS. While the majority of owners live in houses (detached, semi-detached or terraced), tenants generally prefer to live in apartments.
33. Thus there is no change to the basic methodology of calculating 173 parities and updating them using price indices at the same level. The only change introduced with the 1995 FBS survey is in the estimation of detailed weights which Eurostat considers to be more reliable than those from the 1989 FBS

F. RESPONSE PROBLEMS IN PLACES OTHER THAN BRUSSELS

34. For places other than Brussels different considerations apply. In the places where there are large research centres, particularly Ispra and Culham, there exists the possibility of obtaining reasonably large numbers of FBS respondents - though not on the same scale as in Brussels. In the capital cities and a few other places where there are relatively few officials, there are problems in obtaining enough completed FBS questionnaires to be statistically viable. This problem also exists in the separate field of correction coefficients for places outside the EU (See Docs Art 64/68 (Nov. 1992), Art. 64/70 (Nov. 1992), Art. 64/76 (June 1993) and Art 64/96/13 (July 1996)), and has already been examined by the Art. 64 WP regarding places within the EU, as mentioned in para. 4.
35. In certain places, the combined number of EU 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. But there are several places where there are not enough officials to provide a reliable estimate - even if a 100% response were obtained (estimates from small samples will not necessarily represent the target average). This is the case for Denmark, Spain, Greece, Ireland, Portugal, Finland, Austria and Sweden.
36. Possible solutions to this problem were suggested in Eurostat papers Art 64/74 (Feb 1993) and Art 64/94 (Nov 1994). None of the suggestions met with the unanimous approval of delegates, but it was clear that some type of average weighting pattern should be sought. A firm proposal, based on the scheme outlined in para. 21 of Doc. Art 64/94 was presented in the document Art 64/95/5 (Feb 1995) and is now given in the following paragraphs. The method was approved by the Working Party and is now being applied to estimate consumption weights for places with few officials.
37. The new method treats housing separately from other items of expenditure. Considering non-housing items first, 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. Knowing that there is a reasonable degree of homogeneity amongst the consumption patterns of international officials regardless of their place of employment. (See para. 11), a set of average weights at a high level of aggregation (the usual 8-group level) is calculated. These high-level weights are then disaggregated down to the 173-heading level, excluding housing, using national weights. This method thus has a close relationship with the method used for Brussels, as described earlier in section E of this paper.

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 173 basic headings are re-scaled to 1,000.

38. 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 was to produce a proxy for a Paasche-type "local" weighting, it would have been perverse to include Brussels - as, of course, the Laspeyres part of the final Fisher index is wholly Brussels-based. Thus the solution retained has been to calculate an average set of weights based only on FBSs from places other than Brussels.

39. Doc A64/95/5 provides the detailed results of applying the new method to the 8 places concerned. Eurostat believes that it gives a more accurate reflection than hitherto of the real cost-of-living differences between these places and Brussels.
40. The estimation of consumption weights for the other countries, although based 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. In the UK, the same weighting pattern is used for Culham and London, although (a) the number of FBS respondents from Culham exceeds that from London, and (b) rents in London are considerably greater than those in Culham. In Germany, the same pattern is used in all four places of employment. In Italy, however, Ispra has its own 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.
41. While the case of Italy seems reasonable, some rationalisation in the UK and Germany situation should be introduced in the near future. The new FBS to be conducted in 1997 in London will incorporate the staff of the European Agency for Medicament Evaluation permitting reliable weights, independently of those from Culham. Weights for Karlsruhe and Munich could also be treated independently, the first based on the already existing large sample and the second incorporating for future FBS the staff of the European Patent Office. Bonn and Berlin could be treated either as part of the European pool or based on a future German pool. All these proposals will be submitted for the opinion of Art 64 Working Party delegates prior to their introduction.

G. OTHER MATTERS

42. Classification

The classification of expenditure in the current FBS is a "historical" one which does not correspond precisely to any agreed international classification of consumers' expenditure. In order to make comparisons and analysis easier, it would clearly be better to align the various classifications. This is now becoming close to potential achievement. The UN System of National Accounts (SNA) has adopted a classification known as COICOP, also included into the European System of Accounts (ESA) (Council Regulation of 24/5/96 N° 6699/96). There is at the same time a harmonisation of national Family Budget Survey methodologies in progress, which is adopting a classification (PROCOME) based on COICOP, and very similar to it. In addition, Council Regulation N° 2494/95) on the harmonisation of national methodologies for

constructing consumer price indices specifies the use of a classification based on COICOP. The questionnaire used for the 1995 Brussels FBS has used a classification based on PROCOME. This will offer the opportunity of better linkage to national FBS results, and will also, in the future, facilitate the updating of detailed parities using national CPI sub-indices.

43. Frequency of FBSs

The Commission's recommendation for the frequency of national FBSs seems almost certain to be 5-yearly. This has in fact been Eurostat's target frequency for its own FBSs for several years, and it is proposed that this should therefore remain.

Eurostat
Luxembourg,
August 1996.

EUROSTAT REPORT

Follow-up of 1994 review of the methodology

Housing Parities

1. BACKGROUND

1.1 The 1994 review of correction coefficient methodology (doc. SEC(94)755) showed that there were a number of aspects of the method of calculating housing parities that might be capable of improvement. The aspects identified were:

- Alternatives to the imputed rent method for owner-occupiers
- The use of weights for the different dwelling types in each duty-station, as well as in Brussels
- The use of weights for the different dwelling types of owner-occupiers, as well as of tenants
- The selection of appropriate districts for rent surveys.

1.2 In addition to the above points, Eurostat has also given consideration to the inclusion of detached houses in the rent comparison, and has also taken steps to improve the consistency of approach in the annual estate agency rent surveys by providing written guidelines for the surveyors.

1.3 This report summarises the progress made on each of these aspects. It should be said at the outset that the first point - alternatives to the imputed rent method - is potentially the most far-reaching, as it calls into question the most fundamental aspect of calculating housing parities. The examination of this point was therefore given priority.

OWNER-OCCUPIER PARITIES

2 THE IMPUTED RENT METHOD

2.1 The essence of the problem in calculating housing parities for owner-occupied housing is the absence of a clearly-determined market price paid by the owner-occupier to obtain housing services - shelter costs. In the case of tenants, by contrast, shelter costs are explicit, namely the actual rents payable. In principle, owner-occupiers also face an equivalent cost because they face the alternative of letting their houses on the open market rather than occupying them themselves and obtaining, in return, the current market rent. In choosing to occupy their property, rather than rent it out, they forgo the rental income that could be obtained. This may be regarded, therefore, as the price of avoiding the rent they would otherwise have to pay if they themselves were tenants. Thus, in effect, the costs of shelter for owner-occupiers are equivalent to the market rents of similar properties. This argument provides the rationale for taking imputed rents as the basis of measuring the shelter costs of owner-occupied property. In practice, however, it is clear that costs imputed in this way may differ considerably from those actually paid by owner-occupiers, a major component of which is mortgage interest payments. There is, therefore, a case for considering alternative ways of deriving housing parities for owner-occupied property which more closely relate to the actual costs incurred in different duty-stations.

2.2 To examine the alternatives, Eurostat obtained the services of a consultant, Prof Michael Fleming of Loughborough University (UK), a well-known expert in the field of housing economics. His report is summarised below and available on request.

2.3 Three potential solutions to the problem may be defined, each of which embodies a different concept of costs and thus represents a different philosophical approach to the problem. The conceptual basis of the three potential solutions may be defined as covering:

- a) the actual costs of owner occupation,
- b) the opportunity costs of owner-occupation, and
- c) the user costs of owner-occupation.

3. ACTUAL COSTS APPROACH

3.1 From the point of view of the staff who are occupying their own dwellings, the Actual Costs approach is probably the one most favoured. The argument is that correction coefficients are supposed to allow for differences in relative living costs, and if these include the costs of buying a dwelling and servicing any mortgage then such costs reflect the reality and should be included.

3.2 Some of the costs faced by owner-occupiers are already included in the parity calculation. All the costs of maintenance and repairs, for example, are covered. The major exclusions are the capital cost of purchase and major renovation, and the interest paid on mortgages. This summary does not propose to repeat the arguments for and against including the various elements of costs: this is all well covered in Prof Fleming's report. The report was carefully considered by the Article 64 Working Party and its special Task Force on Housing Parities. They came to the unanimous conclusion that the Actual Cost approach was inappropriate for calculating housing parities, principally on the grounds that (a) capital expenditure of any type does not form part of the "cost of living" and (b) interest payments do not reflect the cost of goods or services, and cannot therefore be included in the basket of items for which comparative prices are surveyed. The Working Party also noted that this approach would also require the measurement of local house prices as well as rents, which would introduce a further element of practical difficulty.

4. USER COST APPROACH

4.1 This approach attempts to make a comprehensive evaluation of all the costs associated with owner-occupied housing. It takes account of the opportunity costs of capital, of the cost of physical depreciation, and of the fact that a dwelling is a capital asset liable to give rise to capital gains or losses. This approach is well-founded in financial theory and cannot be faulted on theoretical grounds. However, it was firmly rejected by the Article 64 Working Party, both because of conceptual and practical difficulties (particularly the inclusion of capital losses) and because the method was so complex that it would be impossible to explain to non-specialists.

5. OPPORTUNITY COST APPROACH

5.1 This approach can be made at two different levels. The first, more basic level, starts from the point at which an individual, seeking to provide himself with shelter, makes the choice between using capital (either owned or borrowed) to invest in the purchase of a dwelling, and thereby depriving himself of interest, or to invest the capital in an income-producing financial asset and using that income to rent a dwelling. The second level is in fact the imputed rent method which is the one actually used for calculating housing parities. This starts from the point at which the decision to invest in an owner-occupied dwelling has already been made; the question then is whether to let the dwelling to a tenant and to use the income to rent a different dwelling for occupation, or alternatively to occupy the dwelling and thereby forgo the rent which could otherwise have been obtained. The imputed rent is either the rent which could be obtained from letting the dwelling to a tenant, or the rent which would have to be paid for occupying an identical dwelling. In practice, both types of imputed rents are identical.

5.2 The Article 64 Working Party considered the first of these two methods, and reached the conclusion that because a crucial part of the calculation lies in choosing an appropriate notional rate of interest - a choice which is far from obvious - such a method would have no advantage over the existing method. Perhaps more fundamentally, the Working Party felt that an investment decision was not directly related to the place of employment of the investor, and thus could not form the basis for a comparison of "costs". Furthermore, as with the Actual Cost approach, the Working Party noted that this method would also require the measurement of local house prices as well as rents.

6. OWNER-OCCUPIERS: CONCLUSION

6.1 Having, after serious consideration of the different approaches, decided that there was no reasonable alternative to the existing imputed rents method, the Article 64 Working Party reached the unanimous conclusion that there were no grounds for departing from the present basic methodology. Moreover, the present method was widely (though not universally) accepted by the staff organisations. It was also noted that the imputed rent method was used for other international housing cost comparisons, not only for the purpose of calculating salary adjustments but also for the broader purpose of measuring Gross Domestic Product in real terms, in particular in the European Comparison Programme and the International Comparison Programme.

6.2 The Working Party nevertheless felt that, although the imputed rent method should remain in place, there were a number of practical improvements that could be made to achieve more reliable results. Some of these had already emerged from the joint Council/Commission review of correction coefficient methodology referred to in para 1.1. Others are currently being examined, and are also dealt with in this report.

7. USE OF WEIGHTS FOR DIFFERENT DWELLING TYPES IN DUTY STATIONS.

7.1 The methodology for calculating parities generally is firstly to calculate a Laspeyres-type global parity, that is to weight each of the 173 basic heading parities according to the pattern of consumption by officials in Brussels, the reference city. Secondly, a Paasche-type global parity is calculated by using consumption weights appropriate to each separate duty station (Paris, London etc). Finally, a Fisher-type index is calculated, by taking the geometric mean of the Laspeyres and Paasche parities.

7.2 This methodology has been widely used in the field of international price comparisons and is generally accepted.

7.3 The decision to create a basic heading for a certain grouping of expenditures is to some extent arbitrary, but is guided by three basic factors. Firstly, the products within a basic heading should be of a broadly similar type ("beef", in its various forms, is an example). This is because the source of weights is derived from surveys of household expenditure, where for convenience it is important to group similar items together. Secondly, the products within a basic heading should be reasonably homogeneous, so that the parity calculated for a basic heading should not depend too critically on the choice of "representative" items which are actually selected for pricing. (In the case of "beef", for instance, it is likely that the price movements of different types of beef: steak, ribs, etc) will be likely to be fairly similar. Thirdly, it is necessary to have a subgroup of the consumer price index in each country which relates closely to the basic heading as a whole, since it is such detailed price indices which are used to update the parities in the intervals between direct surveys.

7.4 The weights for the 173 basic headings vary quite widely, but average about 0.5%. By contrast, the weight for housing is typically about 20% - by far the most important single heading. (It should be noted that although housing covers two basic headings (70 and 71) the use of imputed rents for owner-occupiers means that the same parity is used for both headings, which consequently may be treated as a single heading).

7.5 The current method used for calculating rent parities is quite complex, and is described in some detail in the Commission Report to Council on methodology referred to in para. 1.1. The relevant point to note here is that the average rent is calculated as a weighted mean of several different dwelling types. The weights are obtained from the annual Staff Housing Survey. Till 1995 the same weights, resulting from the survey conducted in Brussels, were used to calculate the average rents in all the duty stations (except for Italy and Varese, where Varese weights were used). The effect of this procedure was thus to calculate only a Laspeyres-type parity for housing. No account was taken of the possibility that the mix of dwelling types in other duty-stations may differ from that in Brussels.

7.6 The reason why only the Brussels weighting was used was simply that there was insufficient data to permit the calculation of statistically significant weights for the other duty stations (except Varese). In the absence of such data, it had been felt sufficient to use the Brussels pattern in all the other places.

7.7 The Article 64 Working Party considered different solutions to the problem and approved the use of a simplified questionnaire for the Staff Housing Survey and of OECD results from comparable surveys. This allowed Eurostat to establish specific weights for different dwelling types in 4 (out of 19) duty stations in 1996. Further progress on this matter is expected in coming years.

8. USE OF WEIGHTS FOR OWNER-OCCUPIED DWELLINGS.

8.1 This is a similar problem to the previous one. The weights used up to 1995 in the calculation of average rents were those relating to the types of dwelling occupied by tenants. No account was taken of the fact that the pattern of dwelling types occupied by owners may be different.

8.2 The rationale for this decision was, however, different. It was based on the assumption that since owner-occupiers are treated as if they were tenants, their pattern of occupation was identical. However, this could be taken as a somewhat restrictive interpretation of the theory of imputed rents. The rent imputed to an owner-occupier should be the notional rent for the property which he is occupying, and not for some other property. We are, of course, talking about average rents, not individual ones, but the same principle should apply; it may well be that owner-occupiers tend to occupy, on average, different types of dwelling from those occupied by tenants.

8.3 The question thus arises as to whether the data available was sufficient to allow for the potentially different occupation patterns of owner-occupiers and tenants. In fact, the situation was similar to that relating to dwelling types discussed in section 7: data available from the annual staff housing surveys provided a statistically viable sample in Brussels and in Varese, but not elsewhere.

8.4 The Working Party approved the Eurostat proposal to calculate housing-type weights based on the total rent/imputed rent of tenants and owner-occupiers for the different duty stations. This means that for Brussels and the other places where specific weights are available Eurostat calculates an average rent by type of dwelling, using a stratification of dwellings related to housing characteristics. This method is in line with the rent imputation followed in the Brussels Family Budget Survey and is based on the construction of homogeneous classes taking into account housing characteristics such as the type of dwelling, surface area, the existence or not of a garage, etc. The rent imputed to each owner-occupied dwelling is the average of the class in which the dwelling is classified. From 1996 these kind of patterns of occupation based on the total rent/imputed rent are used in the rent parities calculation.

9. SELECTION OF APPROPRIATE DISTRICTS FOR RENT SURVEYS

9.1 The present method of surveying rents is based on annual surveys of estate agents in each duty station. Over the years, the districts covered in the surveys have become generally agreed with the NSIs and with the estate agents. Considerable efforts are made to ensure that all the appropriate districts are covered in each survey. In some cases, one agency may cover several districts, while in others a particular agency will "specialise" in one or more

districts. One of the problems with the present arrangements in practice is that the choice of agencies tends to be self-selecting: many agencies decline to co-operate, and there is thus no guarantee that the agencies actually surveyed will cover all the necessary districts, nor that they will cover them in roughly the correct proportion.

9.2 The lists of districts have been analysed bilaterally (Eurostat with each NSI). They will be revised before the start of each annual round of surveys. The surveyors have been asked to check these lists in the field and to point out any change or update that could be useful.

9.3 The average rent calculated for each duty station is simply the unadjusted average of the results from all the agencies. Eurostat studied several possibilities to exclude extreme values (outliers) in order to:

- . reduce, in each survey, the probability of including, by accident, results which are clearly out of line with the norm (possibly indicating that either the wrong districts or property types have been chosen);
- . ensure that the results of consecutive surveys are more comparable, given that the sample of agencies varies slightly from year to year.

The Article 64 Working Party considered that it was impossible to find any uncontroversial test to use for the automatic exclusion of outliers. Instead the following procedure was decided:

- (a) rent surveyors and local NSI representatives are responsible for the quality of data; they will have to make a bigger effort to appreciate in the field whether extreme values are genuine cases or incorrect figures. They will report their opinions to Eurostat.
- (b) on the basis of the surveyors' reports, Eurostat will decide, case by case, whether extreme values are to be eliminated or not.

10. GUIDELINES FOR RENT SURVEYORS.

10.1 The annual estate agency rent surveys have now been in place for several years, and can be regarded as giving reasonably reliable results. An important feature of these surveys - as with other price surveys - is consistency of approach. Eurostat has always attached great importance to the need to keep the number of surveyors to the minimum, so that the same interviewers survey many different cities.

10.2 This work is done in close collaboration with the Inter-Organisation Section (SIO) of OECD. To reduce costs, surveys are done either by SIO or by Eurostat (or consultants acting on Eurostat's behalf), and the results are shared. In all countries, NSI representatives are included in the survey team. The growth in the number of places to be surveyed - particularly with the accession of new Member States - has inevitably required an increase in the total number of surveyors, leading to the need for a more rigorous means of ensuring a consistent approach. Eurostat has achieved this firstly by having meetings of surveyors both before and after the annual round of surveys, and secondly by producing a set of written guidelines. These are also available to the NSI collaborators, and a copy of the guidelines is attached to this report (Annex 2 - available in English, French and German only).

11. INCLUSION OF DETACHED HOUSES IN THE HOUSING PARITIES.

11.1 The model used until 1994 for calculating housing parities contained 5 basic dwelling types (studio flat, 1-bedroom flat, 2-bedroom flat, 3-bedroom flat, non-detached house). When the model was introduced in 1992 there were scarcely any data available on detached houses, although it is known that, in Brussels at least, around 20% of officials are actually occupying detached houses. Since 1991, the annual estate agency rent surveys have been including data on detached houses, so that for most places a 5-year run of data was available in 1995.

11.2 Accordingly, the Article 64 Working Party reached the conclusion that, in principle, detached houses should be incorporated in the parity calculation with effect from 1995. For those places with some missing years, interpolation and/or extrapolation techniques may be used to make estimates, as was done for the other housing types when the new method was introduced in 1992.

11.3 However, the Working Party accepted the fact that in some cities detached houses in central areas were scarcely available. In such cases, the treatment should be exactly the same as for other price comparisons: where no price is available, no ratio is calculated. Accordingly, Eurostat asked each NSI to state whether or not detached houses were generally available in the central parts of the cities in their own countries. As a result, from 1995 parities incorporate detached houses in all places except: Amsterdam, Athens, Madrid, Paris, Rome and London.

12. CONCLUSIONS

12.1 The Commission believes that, in consideration of the improvements to housing parity methods described in this report, the correction coefficients are even more firmly based than in the past, both on theoretical and practical grounds. These improvements mainly referred to:

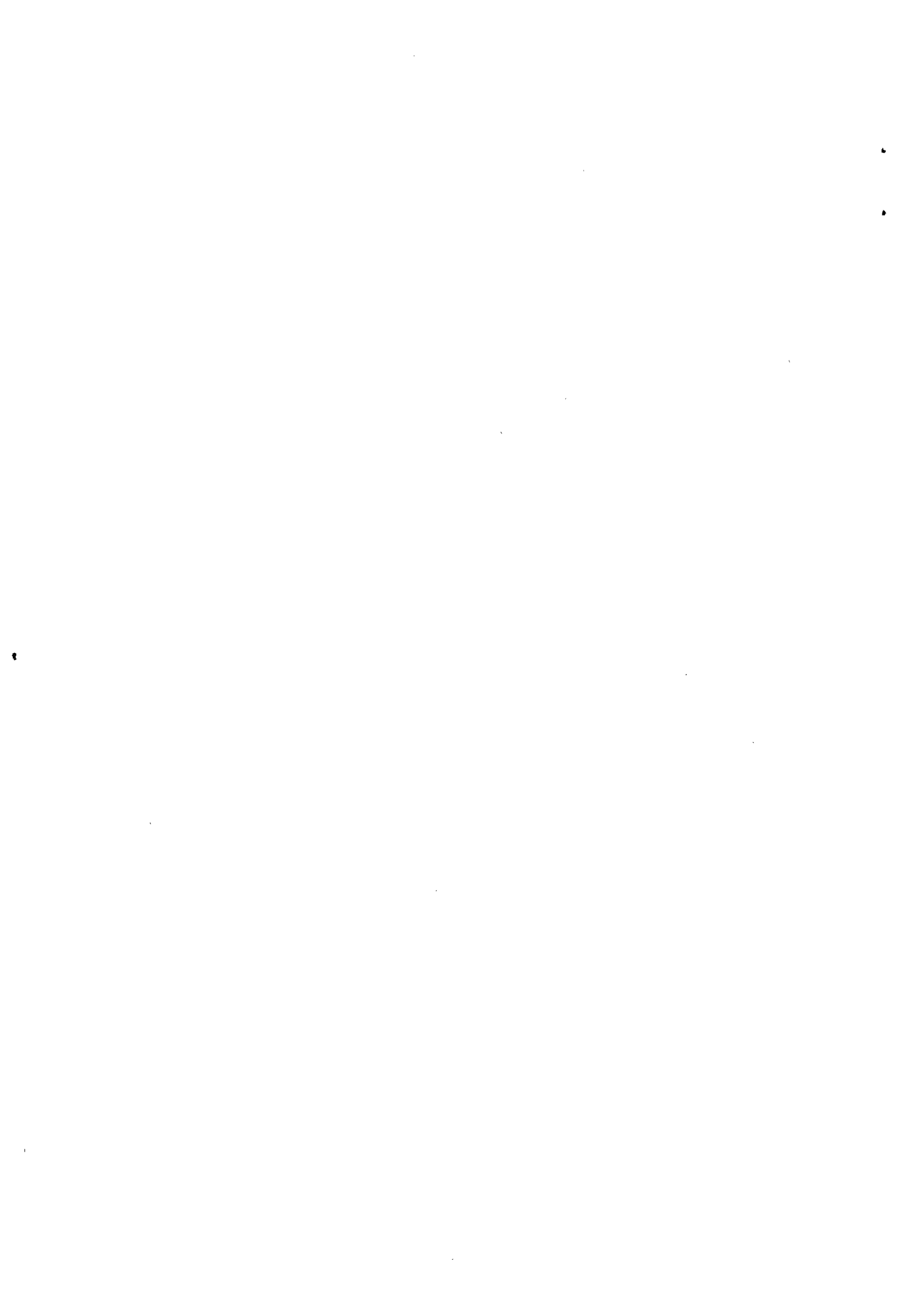
- thorough review of measures of owner-occupiers' shelter costs and confirmation of the imputed rent method;
- use of more appropriate housing-type pattern for some duty stations;
- use of weight taking into account owner-occupied dwellings;
- inclusion of detached houses;
- better training and instructions for rent surveyors;
- updated lists of districts agreed bilaterally.

Meanwhile, Eurostat and its collaborators in Member States will continue to search for further improvements in this and in other areas of the correction coefficient methodology.

EUROSTAT REPORT

Follow-up of 1994 review of the methodology

**Guidelines on the methodology
of conducting surveys**



Guidelines on the methodology of conducting surveys

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1 INTRODUCTION

1. The Purchasing Power Parity Programme is organised jointly by Eurostat and the OECD. Its purpose is to enable comparisons of real volume to be made for the participating countries. The estimation of purchasing power parities requires a set of national annual average prices from each country. These prices are collected in price surveys which are carried out by the national statistical offices and co-ordinated by Eurostat and the OECD.
2. The theory on which the PPP Programme is based requires as an absolute condition that the prices used for the estimation of the parities are fully comparable and refer to identical products. This condition implies an agreement on common rules for the price surveys in order to avoid that differences in procedures or definitions should influence the results. Hence guidelines are needed to supply such rules and give advice on methods that are expected to result in comparable data.
3. Guidelines adopted by the relevant body of delegates are also an important instrument for establishing a minimum level of quality that is to be observed by the countries. This function is important for the general confidence in the surveys which is necessary to maintain a wide acceptance of the PPP Programme.
4. The guidelines on the methodology of conducting surveys are intended to supply practical advice for the survey work. The potential readers are believed to be, in the first place, the specialists of the national statistical offices who are engaged in the price surveys. The guidelines should be particularly useful for people without former experience of PPP work and especially so when these surveys are first introduced in a country. The guidelines are intended for the consumer price surveys for the PPP programme as well as for surveys delivering data for the calculation of correction coefficients.
5. The overall structure of the PPP comparisons will be described in a separate document, Guidelines on the joint Eurostat-OECD PPP Programme. These general guidelines will also include accounts of the concepts and classifications decided for the PPP Programme. Readers interested in structural and conceptual questions should be referred to this latter document.
6. The present guidelines on the methodology of conducting surveys are not intended to cover the whole area of PPP work. They will deal only with methods and procedures related to the consumer price surveys needed for the PPP programme and for the correction coefficients. The guidelines will not treat problematic areas outside these surveys, e.g. rents, health, education, compensation of employees, etc. The centralised parts of the project, i.e. the works undertaken by Eurostat, such as the processing of data or the calculation of parities, are also beyond the scope of these guidelines.
7. The first version of the guidelines will comprise a restricted number of topics. Additional chapters are planned to be included in later editions, if possible.

2 GENERAL PRINCIPLES

1. This chapter contains a summary of some important principles guiding the purchasing power parity calculations. The influence of these principles on the design of the price surveys is outlined only briefly; more complete accounts can be found in the following chapters.

Consistency of price data with national accounts

2. Purchasing power parities are required for international economic comparisons of various kinds when there is a need to eliminate differences in price level between the countries or to equalise the purchasing power of the currencies. The two main uses of the parities calculated by Eurostat are:
 - for volume comparisons of GDP aggregates; and
 - for the correction coefficients used for salary adjustments.

Other potential uses of the parities include comparisons of prices and price levels, which have an interest of their own, and conversion of values, other than GDP aggregates, for comparisons of the use of resources.

3. The main use of the purchasing power parities for conversion of national accounts aggregates implies that the prices needed for the calculation of the parities must be consistent with the valuation of the national accounts aggregates. This is of immediate importance for some categories of expenditure, such as rents or health care, but it must also be kept in mind in the case of motor vehicles and medicines, to take just a few examples. The prices do not have to be actual market prices in these cases, provided they are consistent with the national accounts values.
4. Prices intended for conversion of national accounts aggregates are not necessarily suitable for comparisons of price levels. For some basic headings the data requirements may differ between the two main uses. In such cases both types of prices must be collected in order to supply the appropriate type of data for the correction coefficients as well as for the purchasing power parities.

Product identity

5. It is obvious that meaningful price ratios cannot be established unless the products to be compared are comparable with respect to important characteristics. The products should indeed be identical, if possible. In the case of many products the price is to refer to a certain brand and model which has been specified in the product definition. Otherwise the identity concerns quantity, dimensions, material, design, etc. and, for some products, country of origin. This is to make sure, as far as possible, that only products of equal quality are being compared. Also special conditions of sale are sometimes specified. Services connected with the purchase as well as amenities open to the customer are not included in the identity conditions at present.
6. The principle of identity or comparability is fundamental for the product definitions and accordingly for the identification of the articles by the enumerators when they collect the prices.

Equi-representativity

7. The concept of equi-representativity is used to denote that the common basket of consumer goods and services to be priced is equally representative of the domestic consumption of each country. The concept refers to all levels for which parities are calculated, i.e. for basic headings and aggregates of basic headings, up to the GDP total.
8. Products that are sold in sufficient quantities to be representative of their national market tend to have a relatively lower price than non-representative products; thus there is a negative correlation between prices and quantities. We can observe here a direct analogy with temporal indices, for which the base-weighted (Laspeyres') index will usually give a higher index figure than the current-weighted (Paasche) index, the weight structure of the latter being more representative of the present situation. It follows that a comparison which fails to satisfy the requirement of equi-representativity will most likely result in biased price ratios. Such a biased result is above all to be expected for the price ratios between the central and the peripheral countries of a group of countries. This is because a larger number of representative products can normally be found in the central countries. Accordingly, for a peripheral country the price level would be overestimated and the volume underestimated; for a central country it would be the other way round.
9. A special calculation procedure has been elaborated for the calculation of the parities in order to establish equi-representativity. The procedure makes use of the "asterisk method" together with the calculation of Fisher indexes. Each country indicates, by means of asterisks, which of the products they have priced are representative. For each basic heading and pair of countries, a Laspeyres'-type index is calculated based on the "asterisk" products of the base country and, similarly, a Paasche-type index is calculated on the basis of the "asterisk" products of the partner country. The geometric average of these two indexes makes up the binary Fisher index for the country combination. The calculation procedure has the effect that the total impact of the representative products of the two countries will be equal.
10. The method requires, if it is to give the desired result, that representative products of each national market are included in every basic heading. It is not necessary for a country to price all products, but each representative product has to be priced by more than one country. The selection of articles for the list of products is extremely important and cannot be made without a thorough knowledge of the national markets. Clearly, it is absolutely necessary that all the countries participate very actively in the preparation of the list of products, as this is the only way to attain a satisfactory result.
11. A second requirement is that uniform rules are used to determine whether a product is representative or not. This problem is discussed in detail in the chapter on representativity below.

Graduality

12. The concept of graduality is applicable to comparisons in space as well as to comparisons over time. Just as periods that are a long way apart should not be compared directly, neither should countries with very different consumption patterns. This rule is observed by the design of the calculation procedure. If, for a pair of countries, no representative common product can be found, the parity will be calculated using indirect price ratios, obtained by means of all other possible countries serving as bridges. A conclusion supported by the graduality principle is that efforts should be made to co-ordinate the selection of articles in countries where the same products are likely to be found.

3 PRE-SURVEY WORK

The need for pre-surveys

1. It is familiar to all those in charge of or conducting statistical surveys that a thorough preparation of the survey will make it more efficient and successful. A carefully prepared statistical survey will cause less trouble, take less time, cost less and produce results that are more timely and reliable. The more time and care devoted to the preparation of a survey, the greater the benefits will be.
2. The purchasing power parity surveys are carried out simultaneously by many countries for the sake of international comparisons. Hence, it is essential that the surveys produce comparable results for the participating countries. Comparability is a basic requirement of PPP data. In order to meet this need for PPP data to be comparable, these surveys must be adequately prepared by all participating countries. The measures which all countries should take before starting on the PPP surveys constitute the PPP pre-surveys.
3. The *sine qua non* for comparable PPP data is the existence of a revised and representative list of goods for all participating countries. The main contribution of the pre-surveys to the comparability of PPP data is the compilation of such a list.

Pre-survey timetable and stages

4. Pre-surveys will be carried out in two stages, as follows:
 - a) prior to the compilation of the definitive list of products (stage I);
 - b) prior to the commencement of the price collection, once the list of products has been finalised (stage II).

Pre-surveys: stage I

5. As indicated above, there is an urgent need to revise the list of goods for PPP surveys, and to include goods representative of the countries concerned. The three-yearly interval at which PPP surveys are carried out is a significant period of time, during which changes occur. Such changes may be attributable to shifts in consumer tastes or habits, or to economic trends. Account must be taken of these changes when compiling the lists of goods.
6. Changes can be incorporated by adding new goods (and services) to PPP lists, or by deleting old goods from existing lists. Alternatively, specific definitions of old items on these lists may be amended or supplemented. The countries are expected to formulate specific suggestions with a view to compiling lists of goods for individual PPP surveys. This work constitutes stage I of the pre-surveys.
7. The countries concerned will proceed with this work in preparation for the discussions of the Working Party, at which decisions will be taken about compiling the definitive lists of goods for individual PPP surveys. See also the chapter on representativity, paragraphs 4, 13 and 15.

Type of proposals submitted for compiling the list of goods

8. The above-mentioned proposals, which the countries concerned are called upon to submit at the PPP discussions, are of the following kind:
 - a) Proposals for the addition of new goods

These types of proposals must be submitted as part of the review of the list of PPP goods owing to the three-year frequency of these surveys (cf. above). However, it is imperative that countries with inadequate or poor (lower than 30-50%) coverage of individual basic headings

in a particular survey submit proposals for the addition of new goods. In these cases, the country in question ought to propose that its own representative products be added.

b) Proposals for the deletion of old items

Similarly, as part of their efforts to revise the list of PPP goods, countries must submit proposals for the deletion of old items that are no longer available on the domestic market or which are no longer deemed important from a consumer point of view. Proposals for deletions help trim down PPP lists, thus offsetting the constant increase in volume caused by the ever-swelling ranks of countries participating in PPPs.

c) Proposals to amend or supplement existing specific definitions of old items

Submission of the above type of proposals helps with the revision of existing definitions of PPP goods, either by amending existing goods specifications or by adding other specifications that are deemed important. "Sprucing up" definition in this way ensures on the one hand that they agree with recent product changes, on the other that they are fully comprehensible to the participating countries, a principle that is of fundamental importance for the collection of comparable price data. However, if this principle is to hold, all countries must help revise the definitions of goods under investigation.

9. Each type of suggestion (a, b and c) submitted by participating countries must be specific, documented and accompanied by all the relevant data, specific information and printed matter. Any specific definitions of new goods that are submitted, along with improvements to existing definitions, must be accompanied by full and clear descriptions and, where appropriate, the relevant documentation, e.g. leaflets, documentation containing sketches, pictures, product specifications and other specialist information.

Sources of relevant data for the submission of proposals, and the data extracted

10. In order to formulate definitive proposals for compiling the list of goods for PPPs, participating countries must draw on various sources of data.
- a1) Some of these sources are at the disposal of the national statistical services responsible for carrying out the PPPs. They include the following:
- the list of definitions of goods from the last survey of the same kind;
 - detailed (national) price data from the last survey of the same kind;
 - analysis of the results of the last survey of this kind. This analysis is done by Eurostat and is communicated to participating countries in the form of documentation during preparation of the surveys;
 - the experience acquired by countries from the last survey of the same kind.
- a2) A great deal of basic information is extracted from the above sources and used by participating countries to formulate proposals, e.g.:
- goods and definitions of goods investigated during the last survey of the same kind, broken down by basic heading in the list of the last survey;
 - number of price quotations by commodity priced, as collected during the last survey of the same kind;
 - goods not found on the market during the last survey of the same kind;
 - coverage of goods (by basic heading) during the last survey of the same kind;
 - percentages of goods classified as representative of individual countries, by basic heading, during the last survey of the same kind;
 - the types and number of pricing sources investigated during the last survey of the same kind.

- b1) In addition to the sources of data owned by the national statistical services, there are a good number of sources beyond their control. This category includes the following:
- retail trade associations or bodies;
 - trade collectives or chambers of commerce;
 - market research institutes (companies);
 - large domestic manufacturers of some of the goods included in the PPP surveys
 - industrial affiliations or associations;
 - import companies importing PPP survey goods;
 - large enterprises (establishments) that are representative in terms of the (retail) distribution of certain categories of PPP goods.
- b2) Basic data and useful material are likewise collected from these sources for the submission of proposals. These include the following:
- information regarding the fullness and clarity of definitions of goods from the last survey of the same kind;
 - data on amendments or additions to definitions of certain goods from the last survey of the same kind;
 - information on the sale of goods from the last survey of this kind, whether domestically produced or from abroad;
 - indications as to the addition of new goods to the list of goods for the next survey, whether domestically produced or imported. These goods are submitted as being representative of the country that proposes them, once the necessary research has been carried out;
 - recommendations regarding the characterisation of representative goods, for individual countries, on the list of goods from the last survey of the same kind;
 - recommendations regarding the advisability of deleting certain goods from the list used in the last survey of the same kind;
 - supply of the relevant printed matter with each country's proposals (cf. above);
 - indications as to the selection of suitable and representative pricing sources for the collection of price data during the conduct of the forthcoming PPP survey.
11. A great deal of valuable information can be obtained by observing the products in the shops. The statisticians in charge of the price surveys should devote time to such study visits in order to:
- increase their own general knowledge of the consumer goods;
 - understand the problems of the price collectors and be able to give adequate instructions to the latter;
 - gain such experience as is required for decisions concerning product comparability.

Detailed information for the product definitions, e.g. data on the composition of the products, on quantities, packaging, etc., is perhaps obtained most easily at actual visits to relevant shops.

Pre-surveys: part II

12. After the final list of goods for inclusion in the PPP survey has been drawn up, the participating countries will be asked to decide concrete measures for conducting the survey in question. These measures, which will be taken by countries after the list of goods for inclusion in the PPP survey have been finalised and before the survey begins, constitute stage II of the pre-surveys.

13. There follows a more detailed description of these measures and the order in which they will be taken:

- a) To begin with, a selection will be made of establishments (pricing sources) from which the relevant price data will be collected. To do this, each country will follow the methodology adopted, drawing on the experience gained from the last survey of the same kind and basing itself on a single set of data. Most of these data will be held by the national statistical service (pricing sources for the CPI, register of retail sales establishments, turnover data, VAT data, etc.), whilst other data will be passed on to the statistical service by outside bodies (cf. paragraph 10 above). It is suggested that pricing sources be selected whilst the final list of goods for a PPP survey is being awaited from Eurostat, as this will save time starting the survey in question. See also the chapter on selection of outlets.
- b) Once the list of goods for the next PPP survey has been received, it should be checked to ensure that the definitions of new goods are intelligible. If the persons in charge of conducting the PPP surveys and his or her assistants are unable to understand the definitions, Eurostat will have to be asked for additional information and explanations.
- c) Next, in order to shorten the list of goods for the PPP survey and facilitate pricing work and the conduct of the survey as a whole, those pages containing goods that are no longer available on the national market should be removed from the list. See the chapter on dimensions of the price collection, paragraphs' 10-16.
- d) Then the most important work in stage II is carried out, namely discussions between the person and persons in charge of the survey and price enumerators. During these discussions, account will be taken of the following:
 - i. Distribution and explanation of the material used (questionnaire of goods, list of instructions and other supplementary forms, photographs of goods, forms or letters from the national statistical service, Eurostat and the relevant association of retail sales establishments to storekeepers to facilitate the work of the price enumerators and of pricing in general).
 - ii. Definition of establishments to be investigated by each enumerator, the relevant address and other documents (e.g. town map) being provided to help locate them.
 - iii. Instructions and guidelines for carrying out the survey.
Instructions will be issued, in accordance with Eurostat guidelines, for conducting the survey and for dealing with questions such as prices reduced for short periods, special offers, sales prices, etc.
 - iv. Detailed examination of the definitions of goods for a specific PPP survey, the necessary explanations and clarifications being given to the price enumerators, the object being to ensure they fully understand the definitions of goods and thus collect reliable price data.
- e) Shortly after the PPP survey begins, the person in charge of the survey should visit the establishments involved in order to check whether the priced goods correspond to the definitions on the survey list and, more generally, whether the instructions and guidelines given to the price enumerators are being followed.

Impact of the pre-surveys

14. The pre-surveys will improve the PPP survey results in two important respects:

- i they will contribute significantly to the comparability of PPP data, thanks to the compilation of the list of products to be investigated;
- ii the revision of the list of products, representative goods being included for all the participating countries, will also have a beneficial impact on the representativeness of PPP data (see the chapter on representativity).

The influence of the pre-surveys on the comparability and representativeness of PPP data, together with the measures taken as part of stage II to ensure that the relevant guidelines and definitions are fully complied with during pricing, will help ensure that pre-surveys have a generally positive effect on the reliability of PPP survey data.

15. The pre-surveys will also help solve two additional problems which have been occupying the Working Party on Purchasing Power Parities in particular, namely:
- i coverage of the basic headings in the PPP list of products; and
 - ii obtaining an adequate number of price quotations for each item.

Basic headings will be covered by participating countries' submitting proposals for the addition of their own representative goods. An adequate number of prices will likewise be guaranteed for representative goods added by individual countries.

16. In addition, the pre-surveys will also have a favourable effect on the actual conduct of PPPs. It is demonstrably easier, more efficient and faster to carry out PPP surveys that are preceded by careful preliminary surveys. The total cost will be less and the results will be available much earlier.

Cost of pre-surveys

17. The cost of the pre-surveys depends on how well they are planned and how carefully they are carried out. For a given PPP survey, preliminaries will cost more when carried out for the first time, the cost decreasing when the survey is repeated. As regards the breakdown of the cost, the bulk is generated by stage I, which lasts longer than stage II. This is because extensive investigations must be carried out before a country can submit the relevant proposals. However, the cost of carrying out pre-surveys will be out-balanced by cost reductions in the following survey operations. Consequently, as stated above, PPP surveys that are not preceded by preliminary surveys cost a country more and do not reap the benefits.

Summary

18. The PPP pre-surveys described above can be summed up as follows (numbers refer to paragraphs in this chapter):
- formulation and submission of full and clearly worded proposals by participating countries for the compilation of a list of PPP survey goods (8-9);
 - search for the necessary information for these proposals, drawing on the specified data sources (10-11);
 - selection of pricing sources based on the methods used by individual countries and on data (input) from bodies outside the national statistical services (13);
 - bringing the list of PPP goods under investigation into line with merchandise actually on sale in a given country (13);
 - organisation of discussions between the person in charge of the PPP surveys and price enumerators to produce instructions and explanations of the definitions of goods (13);
 - visits by the person in charge of the PPP surveys to establishments involved to ensure that the relevant instructions and definitions are being followed (13).

19. The pre-survey work will have a very favourable impact on the PPP surveys (cf. paragraphs 14-16):

- improved comparability of the survey results;
- reduced bias as a consequence of a better representation of the consumer patterns of each country;
- improved coverage of basic headings;
- guarantees of an adequate number of price quotations per item;
- reduction in the time taken to carry out the surveys and thus lower cost.

It is clear from the above that the pre-survey work is a necessary and indispensable part of the PPP surveys and has to be carried out by all participating countries.

4 COMPARABILITY OF PRODUCTS

Preliminary remarks

1. It is a fundamental principle of price statistics that only the truly comparable products should be compared. In international price comparisons, there are two possible ways of ensuring that priced products tally in this way: a) the item can be clearly identified by reference to a certain brand and a certain model ("branded product") (this is by far the most common case), b) the item is described so precisely that the price-survey interviewers in the individual countries find truly comparable products ("standard products"). This is the case for perhaps one-third of all products for which prices are surveyed.
2. This chapter deals exclusively with the second case, as it is a major headache for application-oriented price statisticians in particular. This is because standard products tend to exhibit wider price dispersion than the branded variety. The Working Party on Purchasing-Power Parities is therefore endeavouring to keep the proportion of standard products on the low side.
3. In the programme of international comparisons, the classification of the SNA 1968 is applied. In accordance with this classification, private consumption is broken down into eight commodity groups, which in turn are broken down further. The lowest weighted heading is the basic heading. This is broken down once again into items, for which prices are then surveyed. These items form the "product list". They have to be specified in such a way as to guarantee comparability between countries. The present chapter on "Rules" is concerned with this level only.
4. It is primarily the task of the Delegates of the Working Party on Purchasing-Power Parities to draw up the product list for the comparison co-ordinated by Eurostat. The latter's B3 Secretariat handles organisational matters and ensures comparability of prices by way of regular visits.

Specification of standard products, general principles

5. The specification contains all the price-determining characteristics of a product. On the other hand, properties which have no bearing on price are not included in the description, as the price survey would otherwise be unnecessarily complicated.
Price-determining characteristics are generally quantity, upper and lower quantity limits, standard quantity (which is the reference for conversion), weight, size, shape, type, material, design, intended use, packaging, quality, pre-treatment or preparation, country or region of origin, services directly linked to the product, as well as other product-specific price-determining characteristics.
6. It is often appropriate to exclude explicitly certain price-determining characteristics from the specification, especially where options are concerned or alternative products exist.
7. Unfortunately, as yet there has been no systematic compilation of product data geared to achieving product comparability. That is why these specifications incorporate much of the everyday knowledge which those involved have gained as consumers.
8. Samples and, above all, photographs have proved to be a useful complement to written specifications, since factors such as fashion and design are very difficult to describe in words.
9. Comparability assurance during the price survey

- At the beginning of each survey wave, a member of staff from Eurostat's B3 Secretariat visits the countries concerned and takes part in the initial price surveys. Through actual visual inspection, the price-survey interviewers can then identify the products sought.
- The price-survey interviewers are required to note additional observations.
- Before, during and after the price surveys, meetings take place between the interviewers and the delegates of the Working Party on Purchasing Price Parities - and consultations may be held with the Eurostat B3 Secretariat.

***Ex-post* plausibilisation and assurance of comparability**

10. Using the "Quaranta" table, the scatter of the prices surveyed is determined for a particular item on the domestic market, internationally and in comparison with the group to which it belongs in the same country. If the variances that emerge are too great, it is assumed that quality differences exist, and such prices are eliminated. Not to be underestimated here is the influence exerted by the Quaranta table in terms of motivating those involved to find really comparable products, as the table will highlight any price fluctuations.
11. If the quality level has not already been adequately laid down by the specification, an item is split up into several items. However, this type of *ex-post* definition is the exception rather than the rule and only make's sense if sufficient prices are still available and the national price structure, i.e. the relative proportion of distribution channels, is not changed.

Specification of standard products - remarks on individual surveys

12. In the following, mention is made only of those aspects which require particular attention. Aspects which derive directly as a matter of course from the general principles stated above are not explicitly mentioned.

13. Foodstuffs, beverages

In the case of *foodstuffs*, the following characteristics in particular need to be defined:

- upper and lower limit of the quantity to be surveyed as well as the standard quantity which is the reference for conversion;
 - drained net weight in the case of cans of preserved food;
 - composition and pre-treatment of the product;
 - meat: specification of cut;
 - Latin name of fish;
 - the following possibilities exist for determining the quality: a) listing a number of known brands, so that the quality is recognisable for the price-survey interviewer; b) determination of quality category (e.g. "Domestic dealer's brand A"); c) differentiation between the original product manufactured in a particular region and the generic product (e.g. genuine Gouda from Holland and cheese of the Gouda type produced in a different country). The prices of the original product and of the generic-type product are surveyed under two different headings.
14. In the case of *non-alcoholic beverages*, a distinction has to be made between beverages contained in non-returnable bottles and those contained in deposit bottles.
The price of *alcoholic beverages* depends in particular on alcohol content, which is why the latter is generally already included in the specification. During the price surveys, the alcohol content is noted along with each price. For wine, a certain quality designation is required, e.g. "*Appellation contrôlée*".

15. Several foodstuffs (mainly fruit and vegetables, but also fish and other sea foods) are subject to seasonal fluctuations. Their prices are surveyed during their main season. Owing to climatic differences, however, the main season also varies from country to country. In such cases, parity is calculated by way of price adjustment applying the national consumer price index. Sometimes, the annual average price (e.g. calculated using the data on which the consumer price index is based) is a good alternative.
16. *Clothing, shoes, household textiles*
- Clothing and shoes are also subject to pronounced seasonal and climatic influences: there are summer clothes and winter clothes. In central Europe, rubber-sole shoes are sold in the autumn, leather-sole shoes in the spring. If possible, the prices of these items are surveyed during their "high season". Otherwise, there is a risk of price distortions occurring as a result of the usual range not being available in the shops.
17. Since fashion, design and cut play a major role in this area, photographs should be enclosed wherever possible, as they are of greater informative value than verbal descriptions. Material samples facilitate the recording of material quality.
18. Varying quality levels and - resultant - price level differences are typical of the clothing sector. Therefore, the quality level is laid down in the specification.
- Good finishing is required for all items.
 - The possible range of brands is restricted in each case to one of the following two groups:
 - a) well-known up-market brand names ("marques nobles") guaranteeing the same high quality irrespective of time or place; the brand concerned may be that of a particular company (e.g. Lacoste or Levi's) or a franchise brand ("marque de franchise") (e.g. Rodier); or
 - b) distributor brand names ("marques de distributeur"), which encompass all other brands (always subject to the condition that they are of good quality).
 - As in the case of foodstuffs, a distinction is made between the original product (e.g. "Lacoste poloshirt") and a generic-type product ("Lacoste-type poloshirt").
19. In the case of clothing, the following characteristics are defined in the specification (alongside the quality level):
- intended use, type of clothing;
 - material: weave, composition (wool: with or without the Wool Seal), weight (light, medium, heavy);
 - clothes size;
 - where lined, composition of lining;
 - description of cut;
 - number of pockets, buttons;
 - zip fastener, buttons;
 - suitable for dry cleaning or machine-washing;
 - particular features of finishing;
 - patterned or single-colour;
 - sold individually or in packages.
20. In the case of materials, the following characteristics are defined:
- intended use;
 - composition (wool: with or without the Wool Seal)
 - weave;
 - material weight per m²;
 - single-colour or patterned;

- material width;
- conversion to square-metre price.

21. In the case of yarns and knitting wool, the following characteristics are defined:

- intended use;
- composition of material;
- thickness;
- weight of ball or of the thread of an entire bobbin;
- length;
- finishing.

22. In the case of shoes, the following characteristics are defined:

- intended use;
- description of shape;
- upper material;
- sole material;
- lining material;
- shoe size.

23. *Furnishings*

This is a market with few branded products, and even these are often restricted to the national market. The product list must therefore contain a sufficient number of standard products to provide a sound data base.

24. In the case of furnishings, the following characteristics are defined:

- intended use (e.g. bedroom, kitchen, etc.);
- outside measurements and tolerances;
- materials used (whether solid or not);
- number of struts (in the case of tables and chairs);
- surface treatment (material and texture);
- number of drawers, doors, shelves, etc.;
- furniture assembled by customer or shop;
- design (with the aid of photographs);
- in the case of lighting: wattage;
- in the case of floor coverings: whether self-adhesive or not, weight per m², composition of material, number of loops per m² and type of pile;

Specification of services

25. Services form a group in their own right and have to be characterised in accordance with their own rules.

26. Generally speaking, price scatter for services tends to be narrow within a particular country but wide in country-to-country comparisons.

27. Specifications for services comprise:

- description of the service; this must be as detailed as possible, as a service usually comprises a package that often differs from one country to the next;
- training of the service provider;
- time requirement;
- hourly wage;

- exclusion of material costs;
 - inclusion or exclusion of travelling expenses;
 - public transport: means of transport, distance, definition of a certain fare
 - rent: price-determining characteristics of the rented property itself, terms and conditions of tenancy agreement.
- 28. Qualitative influences on price which are difficult to record**
- Short product cycle that is subject to a time lag from one country to the next: products which are no longer in vogue on the national market often have a very low price and are thus unsuitable for an international comparison. This is true of hi-fi and photographic equipment in particular.
 - The influence of distribution channels on price is not taken into account, i.e. it is assumed that a particular product sold at various points of sale is always the same product. Under certain circumstances, this may mean that a change in the national structure of the distribution channels will lead to a change in price level. With clothing and furnishings in particular, distribution channels are a subject requiring discussion. It has to be emphasised, however, that there are clear specifications on this: for example, the proportion of prices per distribution channel in the national price structure must be adapted. This avoids undesirable distortions caused by the influence of different distribution channels.
 - It is not possible as yet to define satisfactorily the influences exerted on price by warranties, fashion, design, productivity and service quality.

5 REPRESENTATIVITY

The principle of equi-representativity

1. A fundamental principle in the comparison project is the principle of equi-representativity of the basket of goods. This is a fundamental principle because if the basket of goods defined for the comparison is more representative of certain countries than of others this will be reflected in general by an overestimation in the price relatives of the countries for which the basket is less representative and consequently an underestimation of their volumes. In the literature this phenomenon is called the Gerschenkron effect:
 - the relative price is inversely correlated with the degree of representativity.
2. In practice it is probably unavoidable that the basket of goods is more representative for the central countries and less for the peripheral countries. With this in mind a calculation procedure has been developed in such a way as to avoid a bias due to differences in representativity that the basket of goods may have for different countries.
3. For each binary comparison two parities are calculated, one based upon the representative goods of the first country, and one based upon the representative goods of the second country. The representative products of each country are characterised by the country by means of an asterisk. These Laspeyres' and Paasche type indices are averaged geometrically resulting in a Fisher type index. This is done for each pair of countries. In a later stage the parities are made transitive using the EKS method.
4. It is the responsibility of the participating countries to ensure that their consumption patterns will be well represented in the basket of goods that is used for the surveys. This means that countries should participate actively when the list of products is compiled. They should know which articles are their representative articles for a specific basic heading and they should take care that enough of these products are incorporated in the list. See also the chapter on pre-survey work.
5. Because the Laspeyres'-type index is based only on the asterisk products the number of these products should be not too small. At least one is necessary if a parity is to be calculated at all. A recommended minimum number might be 1 or 2 for headings with a small number of products and 3 or 4 for the bigger headings. A Laspeyres'-type index can only be calculated when other countries can find prices for the representative articles of the first country. This as well is a reason why the number of representative products per country should be not too small.
6. The calculation of binary parities for the correction coefficients used for salary adjustments differs from the calculations for the volume comparisons described above. The correction coefficients are based on binary comparisons between each included city and Brussels. These comparisons make use of a Belgian basket of goods which has been designed to be representative of an international population. All products are considered equally representative and no asterisks are used. This means that equi-representativity is not a problem for the correction coefficients although it remains a critical question for the volume comparisons.

Criteria of representative products

7. Although the principles may be simple and clear, the practical elaboration is difficult and rather subjective. Which are the criteria to be used to declare an article a representative one? First, presence in a country's CPI can often be taken as a sign of representativity.

8. Another possibility to determine asterisk products are based on the experience during the price collection itself. When it appears to be easy to find many prices for a certain article, relative to the target numbers as mentioned in the chapter on numbers of price quotations, this can be an indication of a representative article. It may not be an automatic procedure, however. Some articles are commonly available but cannot be seen as representative because of their relatively minor share in total sales within the product group the item belongs to. See also paragraph 10.
9. For certain products like cars, defined by brand and model, information is sometimes available on the market share of the different brands. The most sold brand(s) should have an asterisk. When the brand is representative and the chosen model is not, priority should be given to the brand. One should be careful, however, that the (non-representative) model is not deviating with respect to the price relative.
10. There is still another way of looking at the way asterisks are attributed. It can be seen as a primitive weighting scheme between the products within the basic heading. The following example, elaborated further in the Annex, can clarify this. It has reference to the basic heading of cheese. Although, in Greece, foreign products are found everywhere and it is easy to find many prices for them, the quantities consumed of the various types of cheese are not large in comparison with the Greek products. If representativity was to be based on the quantities consumed of each product, only Greek products would be expected to be given asterisks. However, the total consumption of foreign cheese is large enough to be taken into account. This would mean that one (at least) of the foreign types of cheese should be given an asterisk to represent the consumption value of foreign products in this basic heading.
11. Roughly spoken, price relatives of asterisk products will have more influence on the binary parity than those of non-asterisk articles. This is not a strict rule because it always depends on the way other countries have collected prices and distributed asterisks.
12. These are considerations to be made before the actual survey takes place or when the prices in the country itself has been collected. But also at the time the preliminary results of the comparison are available and the analysing procedure takes place the results can be used for attributing asterisks or changing the attribution of asterisks. Articles having an extreme price level index compared with the basic heading price level of the country usually should not have an asterisk.
13. So, there are several ways of looking at asterisk products. The problem is that combining these viewpoints can give rise to difficulties. For the really representative products, like the products the country has proposed itself, there should be no problem. The only problem that may arise is caused by the time-lag which exists between the preparation phase of the survey and the time of the survey itself. It can happen in fast-changing markets, like the durables, that a proposed model is not representative any more at the time of the survey, but in that case the brand will certainly be.
14. The major problem will arise for non-representative products which are nevertheless commonly available. Quite a lot of prices can be collected for these products. However, it depends on the relative importance of these products and the number of them within a basic heading whether all or only some of them will get an asterisk. Mostly this will be a subjective choice of the country involved.

Attribution of asterisks

15. All this means that there are three stages in the process of attributing asterisks:
 - during the preparation phase of the survey: the representative products of a country are its asterisk products;

- after the survey and based upon the collected numbers of prices;
 - during the analysing process, based upon the resulting parities. Indicators which are helpful in this stage are average prices in relation to other countries and to similar products.
16. Because of the reasons mentioned earlier (see paragraph 5) it will be clear that the number of asterisk products must not be too small. On the other hand it is unlikely to expect that 90-100% of the articles within a basic heading become asterisk products for a certain country. When prices can be found for all products of a basic heading it does not mean that all these products have the same representativity.
 17. Apart from articles with a unique price it is not to be expected that articles with only one price observation should have an asterisk. Asterisk products should have an above average number of price quotations.
 18. The calculation procedure - described above - that is used to establish equi-representativity requires, in order to give the desired result, that the criteria of representative products are understood and applied in the same way. In practice it seems that most countries have given asterisks to enough articles to guarantee equi-representativity in principle. The number of asterisk products can be observed to vary between countries. In general, central countries have higher numbers of asterisk products than peripheral countries. This is quite natural and reflects expected differences between the markets for consumer goods. It appears, however, that there are also unexpected and unexplained differences in the numbers of asterisks.
 19. It is obvious that the attribution of asterisks involves subjective judgements to a large extent. The persons who are to attribute the asterisks may not interpret the criteria in the same way or may have different notions of how representative an article must be to justify an asterisk. It should be clear from what has been said above that it is necessary to establish a harmonised approach in order to eliminate differing practices. The following measures are recommended:
 - Countries should always check whether asterisks are attributed according to the above-mentioned principles.
 - Countries should adjust the number of asterisks towards the average as represented by the results from the previous survey if they notice that they often lie below or above the numbers of most other countries.
 - Before the final presentation of each survey Eurostat will compare the number of asterisks, report the results to the countries and draw their attention to those cases where deviations from the normal practice have been observed. The observations should normally apply to basic headings or larger aggregates. Countries should consider changes (i.e. increases or reductions of the number of asterisks) in those cases or they should explain why a deviating number of asterisks are justified. This procedure should be regarded as a necessary element of the analysis of the data.

Summary

20. Summarising, the following guidelines have to be kept in mind during the process of attributing asterisks (numbers refer to paragraphs in this chapter).
 - All products a country has introduced in the basket get an asterisk (4, 7).
 - Asterisks should be given according to the relative representativity of a product within the basic heading (10, 14).
 - A product with many price quotations (relative to the target number) and easy to find should usually have an asterisk. The final decision depends on the relative volume of sales of the article within the basic heading (8, 17).

- **Products of a national brand usually get an asterisk.**
- **When products are defined by brand and model, the brand should prevail over the model as far as asterisks are concerned (9).**
- **A product with an extreme price level index with respect to the price level of the basic heading should usually not have an asterisk (12).**
- **The total number of asterisks should not deviate consistently from the general level (18-19).**

Despite this guideline's subjectivity and common sense will play an important role in practical work.

Annex Chapter 5

A proposal to attribute asterisks within a basic heading with a few national and many foreign products for a certain country. This situation mainly applies for peripheral countries.

Example is based on average prices for France and Greece collected during the 1988 survey on "Food, beverages and tobacco".

Basic heading 11441, Cheese

Article	Name	France (FF)	Greece (DRA)	(DRA/FF)
11441A	Camembert de Normandie	38.9	2093	53.8
11441B	Cheese Brie	42.0	1356	32.2
11441E	Cheese Gouda from Holland	43.0	706	16.4
11441F	Cheese Gouda type	41.3	665	16.1
11441G	Cheese Edam from Holland	38.4	671	17.5
11441K	Cheese Emmenthal	60.5	1342	22.2
11441N	Cheese Cheddar type	65.1	1137	17.5
11441O	Cheese Grated Parmesan	77.1	1804	23.4
11441Q	Cheese Feta (from cowmilk)	69.5	462	6.6
11441S	Cheese Mozzarella	57.2	1245	21.7
11441V	Processed cheese	39.8	987	24.8

Market shares are known for Greece: 2/3 of total cheese consumption are for Greek products (Feta and Gouda type) and 1/3 is consumption of foreign cheese.

France had given asterisks to all products.

Greece could follow one of the three following procedures:

1. Consider that only the two Greek products are representative and give asterisks only to these two products.
2. The resulting parity Greece base France will be 14.53.
3. Consider that the foreign products are nevertheless found everywhere which means that they have a certain representativity and give equal representativity to all the less expensive foreign products (i.e. Gouda, Edam and processed cheese).
4. The resulting parity Greece base France will be 17.52.
5. Follow the same reasoning as above but respect the market shares of 1/3 and 2/3 and give only one asterisk to the less expensive of the foreign products (i.e. Edam).
The resulting parity Greece base France will be 15.87.

The conclusion seems to be that the correct attitude must be the one considered in case 3. In a situation like the one described relative representativity can be expressed by keeping a known proportion between consumption of national and foreign products.

6 DIMENSIONS OF THE PRICE COLLECTION

Coverage of basic headings

1. Coverage means the number of items in a basic heading for which prices are recorded relative to the total number of items within that basic heading.
2. In practice there is an enormous difference in the number of items per basic heading. This can differ from 2 to more than 50. A high number of articles usually occur when articles are specified by brand and model. For comparable items a smaller number of articles are usually sufficient. It is not to be expected that for all these articles the price relatives between countries will be equal. The consequence is that a PPP based upon only a small number of articles might have a big margin of error or can be biased.
3. Unfortunately, it is not possible to give strict rules for coverage. The number of items to be priced for a certain basic heading can vary between countries. Important elements for the decision on the degree of coverage are the weight the basic heading has for a specific country (paragraph 4), the principle of equi-representativity (paragraph 5) and the homogeneity of the basic heading (paragraph 6). The main rule is that the products selected for a basic heading should represent the national accounts value of that basic heading in a satisfactory way. However, also non-representative products (i.e. products representative of the partner countries) need to be priced in order to improve the comparison.
4. It goes without saying that the weight of a basic heading is important for the decision on the number of items for which prices have to be collected. A basic heading with a high weight will have greater influence on the overall parity and in the overall volume comparison than a heading with a lower weight. It is important therefore that prices for enough articles will be observed in the case of headings with high weights. In the other extreme case where a certain group of articles does not exist in a country - weight is zero - prices can be collected and need to be collected.
5. There is a close relation between coverage and equi-representativity. Both are important elements for an equilibrious volume comparison. When the basket of articles is not or too less representative of a certain country it will be difficult to attain a high degree of coverage. It is also not recommendable because in that situation the country will be pricing items which are representative of other countries. This will probably overestimate the price relatives of the first country with respect to countries for which the basket is representative. Consequently, the country's volume will be underestimated. So, it is important that for each basic heading the basket of goods contains enough representative articles for each country. When under representativity occur the country involved must actively participate in the preparation phase of the survey to have more representative articles introduced.
6. Another important aspect as regards coverage can be the homogeneity of the basic heading. However one should be careful. Homogeneity in this exercise means those price relatives for different products within a basic heading are homogeneous between countries. The problem however is that this is not to be judged by one country on its own. A basic heading can be homogeneous with respect to the kind of articles, but this is no guarantee that price relatives between countries are homogeneous as well. Unfortunately, in most cases this can only be observed after a survey. One should be careful as well with the results of a previous survey because of the great time lag between the surveys, three years in most cases.

Preparation of the list of products

7. A useful instrument in the preparation phase is the following classification of articles. In practice, the starting point of a survey is the basket of articles observed in the previous survey. Classify these articles in the following way :

- A:** Articles which are representative of the country.
These are the articles which have been proposed by the country in the past or could have been proposed by the country. These articles are easy to find and sold in big quantities. Often, these articles are included in the CPI.
- B:** Articles which are not representative, but commonly available.
For articles of this kind, although they are not representative, it is quite easy to find prices.
An example may clarify this type. For Brie cheese it is easy to find many prices in the Netherlands. Looking at volumes sold, however, and comparing these with the sales of Gouda cheese, Brie is of minor importance, in other words not representative of Dutch cheese consumption.
- C:** Articles which are not representative and difficult to find.
These are articles which do not or hardly exist (reindeer meat outside the Nordic countries), but also articles for which an uncommon quantity is asked. Sometimes an article is asked for in 3 or 4 quantities, like cornflakes. The usual quantity can be classified in category A, the other quantities in category C.

It may not be obvious to which category some articles ought to belong. Advice on this matter or data to shed light on it, such as market shares, etc., can sometimes be supplied by the CPI specialists or by manufacturers or importers. Useful information may be obtained from observations in shops during the pre-survey stage. (See also the chapters on representativity and on pre-survey work.)

8. Articles in categories B and C are in principle proposed by other countries. When category B appears to be very small for a specific country it might be useful nevertheless to propose some articles for this category or to support proposals of other countries.
9. For each survey country should take care that category A contains enough articles. As said earlier, no strict rules are available to define how many are enough. It depends on the importance of the basic heading and the number of articles already in the heading. Two to five articles seems a reasonable minimum demand.

When all countries have participated actively in the preparation phase, the basket of goods for each basic heading should be equi-representative for each country.

Selection of products for the price collection

10. During the actual survey all countries should collect prices for each of their representative items. These items form the basis for the Laspeyres'-type index in the calculations, which is based upon the representative items of a country. Subsequently, a Paasche-type index is calculated based upon the representative articles of the other country. To guarantee that the latter index has a solid base prices have to be collected for at least some of the representative articles of that other country. In practice these will be the articles of category B, but this is not necessary. Neighbouring countries often have a lot of common representative articles. Nevertheless, it is important that category B contains enough articles for each country.
11. Whether prices will be collected for articles of category C will depend on the budgetary means a country has and on the coverage the country can already achieve with categories A and B. When

a country expects to collect prices for enough articles of category B it can drop the articles of category C at the start of the survey. It can even have a disturbing effect on the results when prices are collected for really uncommon articles. The price relatives for these articles will probably quite differ from those of the more common articles and will not be relevant at all for the National Accounts values to be deflated.

Rates of coverage

12. The observed rate of coverage is above 50% on average for the PPP price surveys. However, the rate of coverage must be regarded in the context of the product list. As said in paragraph 2 the number of products differs significantly between basic headings. It is quite natural that the rate of coverage will be lower for headings with many products. This situation usually occurs when brands and models are specified. Furniture, household appliances and beers are typical examples of this.
13. Reasons for lower rates of coverage of some countries can be twofold:
 - The article list was not well fit for the countries' situation. It looks as if this is the case for the furniture survey. When preparing this survey each country should try to propose articles which are representative or commonly available in their country.
 - Too less time was spent on the survey. Each country has to decide this for themselves. It is of course dependent on the possibilities a country has.
14. When the number of countries involved in the surveys is growing it is to be expected that the number of articles will grow. Each country wants to include items which are representative of their country. Therefore it is probably unavoidable that the degree of coverage as a percentage of the total number of articles will decline in the future. The number of articles priced by countries should remain up to par.

Summary of coverage

15. To summarise, it is difficult to give strict rules for coverage. Nevertheless, a lower limit of 30-50% for the degree of coverage per basic heading depending on the weight of the heading and the number of articles seems reasonable keeping in mind the realised degrees of coverage in past surveys. For basic headings with only a few items (like drinking water) the lower limit should be 50%, for headings with a high number of items the lower limit can fall down to 30%.

There are no principal restrictions to an upper limit lower than 100%. A 100% degree of coverage can occur for certain basic headings with a small number of items which refer to goods or services with a common appearance in the whole of the EU. The survey on services is an example of this phenomenon.

- The representative articles should be priced always.
- Price collection for non-representative articles which are commonly available should not be a big problem
- Non-representative articles which are not commonly available can be deleted from the survey when enough commonly available articles are priced.

When all countries succeed in this the resulting parities will have a solid base.

16. In the preparation phase of each survey Eurostat will provide tables with the results on coverage for each basic heading of the previous survey and also specific guidelines on coverage to be achieved. This information can focus countries involved on specific problems with specific basic headings.

Number of price quotations

17. It will be clear that the number of price quotations necessary for a reliable estimate of the average price of an article depends on the dispersion of prices for that article. When the dispersion is wide many prices will have to be collected in order to get a reliable average price. In the case of no dispersion, i.e. when an article has a unique price in a specific country, one price will be enough. On the other hand there is the practical problem of the availability of the product. For representative products it will be easy to find many prices, for articles which are less common this will be more difficult. But it is necessary to find at least some prices for at least some non-representative products to allow for a comparison with other countries where that product might be common.

Recommendations as regards the number of quotations are given in the Annex.

18. For the number of quotations to be collected there will always be a discrepancy between the ideal situation and the practical possibilities. In an ideal situation one uses statistical methods to establish the number of quotations to be collected in order to have an estimate of the average price which has a margin of error within certain prescribed boundaries. The number of quotations is dependent on the required accuracy and the latest available known dispersion of prices.

Some statistical offices apply these methods for their CPI. The number of quotations to be collected that follows from these procedures are often quite high. When for instance the required accuracy, i.e. the relative standard error, is set on 5%, the following numbers of price quotations are needed depending on the variation coefficients mentioned as a measure of dispersion.

var coeff	n
10%	4
20%	16
30%	36
40%	64

With a standard error of 3% we get the following table

var coeff	n
10%	11
20%	44
30%	100
40%	178

19. Variation coefficients realised at previous surveys can be an indication for the number of quotations to be collected in the next survey. One should be very careful however, because for most countries the samples of outlets and prices have not been random. The realised variation coefficients are mostly based upon a rather small number of price quotations and will probably have a downward bias. For articles which are defined by brand and model the variation of prices will usually be smaller than for articles with a general definition. This means that the required number of quotations for the first category can be smaller than for the second category.
20. The practical situation, however, varies between countries and within product groups as well. For a specific article there can be a unique price in one country while there is a wide price dispersion in another country. An example is tobacco products for which prices are fixed in most countries but not in the UK. The same goes for articles specified by brand and model. While price variation for these articles is very small in some countries, it can be remarkably high in

other countries. It is the responsibility of the countries to collect as many prices as necessary for a reliable average price.

21. Because price variation depends on the specific situation in the different countries and on the definitions given, the guidelines (in the Annex) for specific product groups should be regarded as rather rough applications of the more general rules given in the table below. Minimum numbers of price quotations are given for three kinds of articles:

		Minimum number of price quotations
I	Articles with a unique price	1 (also maximum)
II	Articles with a small price variation	5-10
III	Articles with a large price variation	15-20

The decision to which category a specific article belongs has to be taken by the country itself. The decision will be based upon the realised variation in past surveys, variations for these and similar articles in the countries' CPI and on market knowledge within the national statistical office. The Annex should give some rough indications. As a general rule, articles defined by brand and models do not need as many as 15 observations and can be classified among category II. On the other hand, as the price variation will reflect also differences in quality, it follows that articles with relatively wide definitions will need a larger number of price quotations. This latter fact shows, from another point of view, the importance of observing strictly the principle of product identity or comparability. See the chapter on general principles.

22. Besides the number of prices another aspect is equally important. The sample of articles for which prices are recorded should be based upon the population of all articles that meet the definition, whatever brand or point of sale, and prices should be weighted according to sales. This means that the price quotations should reflect the retail market in each country. Countries must avoid concentrating on specific kinds of shops, like very expensive or very cheap shops. See also the chapter on selection of outlets.
23. From common practice it is clear that for the PPP price surveys it is not possible to collect as many prices as for the national CPI. To realise nevertheless a reliable estimate for the average price it might be better to concentrate on the medium range articles in the medium range shops.
 - When turnover figures are known, shops with high turnover figures for the asked articles must be visited during the survey.
 - When two or more articles in a shop meet the (general) definition the article which sells best must be chosen.
24. What is said so far applies to the necessary number of prices. In practice, the number of quotations will vary by the degree of availability of the articles. If an article is commonly available in a country or is representative for the country it will be easily found and the number of price quotations can be high.

On the other hand, the article list does also contain products which are less commonly available in countries. In this case the number of price quotations will be lower. In order to make the comparison procedure a successful one it is necessary to collect prices for at least some of the articles of the last category as well. See the section on coverage (paragraphs' 10-11) for more information.
25. Before each survey Eurostat will produce tables with realised numbers of quotations of the previous survey. If necessary, Eurostat will indicate problematic areas.

Annex Chapter 6

Current guidelines for number of price quotations

Code (table 7 - ESA)	Product group	Number of quotations
1	Food (excluding seasonal products)	10
1	Beverages	5
1	Tobacco	1
2	Clothing and footwear	15-20
31	Housing maintenance (excluding rent)	10
32	Fuel and power	1
41	Furniture and floor coverings	15-20
42	Household textiles and other furnishings	15-20
43	Heating and cooking appliances, refrigerators, etc.	10
44	Glassware and tableware	10
45	Maintenance goods and services	10
46	Domestic services	3
6	Transport and communication (excluding 61)	10 (or 1)
61	Personal transport equipment	5
7	Recreation, entertainment, education (excluding 71)	1 (or 3)
71	Acoustic and recreational equipment	10
8	Miscellaneous goods and services	10 (or 3)
812	Durable goods for personal care	10

7 TYPES OF OUTLETS

General definitions

The outlet classification provided in document PPA 256 "Synthesis" was as follows:

1. Department stores;
2. Supermarket, hypermarket, supermarket type food sections of department stores;
3. Self service wholesale stores, discount shops, "Verbrauchermarkt";
4. Minimarkets, non specialised shops selling mostly food products, service station shops, kiosks; neighbourhood shops;
5. Specialised shops;
6. Markets;
7. Private service companies
8. Public or semi-public service companies
9. Other kinds of trade

The following contains definitions of goods outlets (categories 1, 2, 3, 4, 5, 6). The main criterion used for this classification is the level of service connected to the sale of the product. Examples with specific characteristics are given for each category. In descending order in terms of the service provided, these outlets are 5,1,4,2,3. Type 6 (markets) is an atypical category.

TYPE 5

Complete sales service (no self-service) including advice, the possibility of ordering other products, after-sales service, repairs, etc.

a) Traditional shops

- specialised outlet
- variety: large (including the possibility of ordering)
- sales area: small
- place: city centres or suburbs
- parking: not provided
- situation: shops normally grouped together (eg in shopping streets and centres); sometimes isolated
- supplies: small quantities

TYPE 1

Self-service with sales assistants; possibility of ordering some products; some after-sales service and repairs.

a) department stores

- multispecialist outlet
- variety: large; usually high quality products
- sales area: large
- place: normally in city centres
- parking usually not provided

- situation: grouped together by definition
- supplies: medium quantities, by product line
- b) **"popular department stores"**
the same as department stores except
 - less service to customers
 - smaller variety
 - poorer quality products

TYPE 4

Usually self-service. Because of the limited size of the shop, a certain amount of service can be offered.

- a) **mini-markets and other non-specialized shops selling mostly food products**
 - non specialised outlet selling mostly food products with a certain amount of variety
 - sales area: small
 - place: city centres or suburbs
 - parking not provided
 - situation: grouped together or isolated shop
 - supplies: usually small quantities, by product line.
- b) **Neighbourhood shops**
Like (a) but
 - with smaller variety and
 - longer hours (eg Sundays, bank holidays, nights).
- c) **Service station shops**
Like (a) but
 - with assortment normally containing specific products for motoring.
 - longer hours
 - situation: attached to a filling station.

TYPE 2

Essentially self-service. The role of the staff is basically to fill the shelves and work the tills.

- a) **Supermarket**
 - non specialised outlet selling mostly food products (normally including fresh produce); other products also sold (cleaning products, household goods, personal hygiene products, cosmetics, hardware products; sometimes clothes, electrical goods,...)
 - variety: large
 - sales area: large
 - place: more often in city centres than in suburbs
 - parking normally not provided
 - situation: shops normally grouped together (eg in shopping streets and centres)
 - supplies: large quantities.
- b) **Hypermarkets**
 - non specialised outlet
 - large variety of food and non-food products
 - sales area: very large
 - place: normally on the edge of town
 - parking: large carpark

- situation: isolated or grouped (eg shopping centres)
- supplies: very large quantities.

c) The supermarket type food sections of department of stores and "popular department stores" the same as for supermarkets except:

- specialised outlet
- situation: grouped together by definition.

TYPE 3

Self service.

Service to customers reduced to a minimum to keep prices low: staff only work at cash desks; very simple display of goods (no fixed place for the various types of products like a warehouse).

Discount principle

(Sometimes) wholesale purchase principle (customers must purchase upwards of a certain quantity of each product).

a) Large cash & carry outlets

- specialised or non-specialised outlet
- variety: usually limited; non-branded goods available; not all products are available all the time
- sales area: large
- place: on the edge of towns
- parking provided
- situation: isolated
- supplies: very large quantities

b) Small cash & carry outlets

- specialised shop
- variety: limited; non-branded products available; not all products are available all the time
- sales area: small/medium
- place: in towns
- parking not provided
- situation: usually in a shopping area
- supplies: very large quantities.

TYPE 6 (markets)

Traditional outlet characterised by its location in a public place. It can be open-air or covered. It can be open every day or not (eg once a week). It can consist of professional traders and/or producers. Itinerant shops are excluded from this category.

8 THE SELECTION OF OUTLETS

The purpose of the sample of outlets

1. The sample of outlets for the PPP surveys is to be used primarily for price comparisons which refer to total national consumption. Average prices calculated from the selected shops should in principle be national average prices.
2. A superior rule is, however, that the average prices calculated for a specified product must be comparable among the countries. This is fundamental for the selection of products but it is important also for the selection of outlets, as it can be applied on the differing quantity and quality of the services given to customers by various types of shops. This implies that national average prices are not automatically comparable. See the chapter on general principles.
3. If prices are collected only in a part of the country, e.g. only in the capital, in order to be adjusted to the national price level, it is evident that the outlets selected for price collection must represent the price level of the capital. The price collection in the capital must in such a case refer to the same geographical area as constitutes the base for the adjustment to the national average price. The coverage of the sample for the price comparisons has to be consistent with the adjustment to the national price level.
4. Another important use of the price data is for the correction coefficients intended for salary adjustments. For this purpose the pricing should refer to the consumption of the employees whose salaries are to be adjusted. It means that the price collection should include the cities in which the employees are stationed.

Outlet-specific quality differences

5. It was said above that the sample of outlets is to be used for the calculation of a national average price for each of the selected products. The national average prices that have been estimated for an identical product can, however, - although the estimation as such may have been correct - be lacking in comparability because the prices have been collected in various types of shops with higher or lower service levels. The price of an article bought in a shop that has a well-developed customer service in every respect is not really comparable with the price of an identical article from a shop without the same facilities. A conclusion would seem to be that a specified service level ought to be included in the product definitions.
6. Differences in the service level among shops are, however, most often a reflection of different outlet types, or one would rather say that the service level is one characteristic of the outlet type. Obviously, the comparability with regard to service level will be improved when the prices are collected from similar types of outlets. This aspect has reference to the selection of outlets as well as to the definition of products and should be borne in mind on both occasions.
7. An alternative way to meet the requirement of comparable service levels might be to calculate price ratios for the combination of product x outlet type, i.e. separate price comparisons for each outlet type. Studies of such an outlet type approach have been made but the methods have not been considered ready for practical use so far.

Sample size

8. The number of price observations that is required for different groups of products - and accordingly the size of the sample of outlets - will be discussed in the chapter on dimensions of the price collection, paragraphs' 17-25. For the kind of articles for which prices are collected in

ordinary shops 5-20 price observations are usually required. The number of shops in the sample must, in practice, be somewhat larger than the required number of prices in order to compensate for missing price observations, chiefly because many articles cannot be found everywhere. It may also happen, especially if the sample is drawn from a register or a directory, that entire shops must be omitted for various reasons: they have closed down, changed their line of trade, refuse to participate, etc. Checks along with pre-surveys can give information that can make the sample more effective, e.g. which products are for sale.

Need for specific samples for groups of products

9. Each semi-annual price survey comprises several different commodity groups, each group requiring a specific sample of outlets. This is perhaps most evident in the case of the Services Survey, which includes motor fuels, theatre tickets, books, restaurant services, etc., but is true also of the other price surveys. In the Clothing Survey, for instance, one sample of shops is needed for clothes and another one for footwear.

Criteria for the selection

10. The two most important criteria for the selection of shops are outlet type and geographical situation. The price policy and relative price level of a shop are, as a rule, directly related to both types of outlet and location. Also the service level of a shop has a relation to the outlet type in particular. The outlet type of each selected shop is to be determined according to a common classification. This classification is based on the criterion of the service level offered in connection with the sale of a product. The code number of the outlet type is to be indicated for each reported price in the material transmitted to Eurostat. The common classification for reporting to Eurostat should not prevent countries from using national classifications for sampling purposes, especially if additional information is available for such subdivisions, e.g. on turnover.
11. Other criteria could be type of owner and whether the outlet is a multiple store or independent. These characteristics, as well as the geographical data, can be used as sampling variables but need not be reported to Eurostat. If these latter data on type of owner, etc. should be used as stratification variables, as auxiliary information only, or not at all, is a question that must be decided by national circumstances.

Outlet types

12. The definition of outlet types was revised in 1995 and a new classification into nine categories of outlets was adopted. The main criterion for the classification is the level of service offered by the retail shops. The nine categories that are to be reported in the price data are as follows:

- | | |
|--------|--|
| Type 1 | a) department stores |
| | b) "popular department stores" |
| | c) specialist superstores |
| Type 2 | a) supermarkets |
| | b) hypermarkets |
| | c) supermarket type food sections of 1 a) and 1 b) |
| Type 3 | a) large "hard discount" outlets |
| | b) small "hard discount" outlets |
| Type 4 | a) mini-markets |
| | b) neighbourhood shops |
| | c) service station shops |

- Type 5 a) traditional shops
- Type 6 a) markets
- Type 7 a) private service companies
- Type 8 a) public service companies
- Type 9 a) other (e.g. mail order, sales at the customer's premises, mobile shops)

Definitions of these types and subcategories are given in the Chapter 7. Types 2, 3 and 4 are self-service shops; type 5 excludes self-service shops. Outlets of the types "Verbrauchermarkt" and "SB-Warenhaus" are to be classified according to type 2 above. The subcategories will be used in a flexible way in order to meet the requirements of each survey and according to specific instructions which will be issued by Eurostat.

Allocation of sample to outlet types

13. The sample of shops in which an article is to be priced must represent the various outlet types so correctly that the average price of the product will not be distorted. When the sample for a price survey is to be planned, one of the first steps should be to go through the list of products in order to decide in which outlet types each product group are to be priced. Which outlet types are relevant will usually differ from group to group among the products. The number of shops to be selected from each outlet type for a given product should be proportional to the quantities sold of the product in that outlet type. (Theoretically, one should also take account of the price variation, but it can be disregarded pretty safely, especially as information on coefficients of variation for combinations of products and outlet types is believed to be rare.) It is to be noted that approximate proportions should be quite sufficient. Even very rough estimates are valuable if no other information can be obtained, e.g. estimates by trade experts like: "Our experience is that 2/3 of the products of type X are being sold by specialised shops and 1/3 by department stores."
14. It can be very useful to draw up a table as follows.

Number of price observations by outlet type

Product group	stores	Departm. City centre	Supermarket's Suburbs	C.c.	Specialised shops. Suburbs	Etc.	Total
1...							
2...							
3...							
etc.							

The table is completed by allocating the total number of prices required in each product group (at the extreme right) to outlet types according to the indicated criteria. By reading the table vertically one can see at a glance e.g. that a sample of, say, 15 shops of type X is needed for product groups A and B but only 5 shops of the same type for the remaining product groups. This arrangement of data will prove very helpful, as it will quickly give an overall view of the optimal composition of the sample of outlets needed for a price survey.

15. This kind of information can also be used to adapt one's own forms to the range of products of the selected outlets. This means that only forms containing the relevant products need to be brought along to the shops that are to be visited.

Location

16. It was stated above that the location is a very important factor for the selection of outlets. It may be tempting to concentrate the collection of prices to centrally situated shops in the city centre and it may perhaps even seem to be efficient to do so. We must, however, warn strongly against

such a procedure. There is a substantial risk that the estimates of average prices will be distorted (they will probably be overestimated). The number of shops that are to be selected from the city centre, from more peripheral parts of the city, and from the suburbs, ought to be proportional to the actual distribution of sales in those areas. These proportions are likely to be different among the various product groups, suburban outlets having a larger relative share of the sales of food, whereas more centrally situated outlets may have a larger relative share of the sales of products like clothes and books. Considering that only a very limited number of outlets can be selected for the price collection, it is certainly advisable to avoid the inclusion of expensive shops in fashionable locations as being non-representative. Instead, medium-range shops should be preferred in order to get closer to the average price level.

Other criteria

17. Whether multiple or independent is another criterion for the selection. If multiple stores apply the same prices in all affiliated shops, it should actually be sufficient to observe the prices in only one of these shops. That shop should in such a case be entitled to a weight representing the sales of all the multiple stores belonging to that chain. This can be brought about by duplicating the prices or in some other way. Some degree of carefulness in these situations is advisable, however. Although there may be assurances that the prices are uniform, experience shows that varying prices are not uncommon. Such differences can be explained by individual pricing of part of the goods, which may be due to local competition. Also, the shops need not have exactly the same articles for sale: some shops may have a limited assortment of articles, or individual shops may have a certain freedom to adapt their range of products to local conditions.

Sampling method: Random or non-random sampling

18. As a matter of principle, the sampling of outlets for the price surveys ought to be in accordance with established statistical theory and its applications. It means in this case that the sampling procedure is dependent on a random process which makes it possible to obtain unbiased estimates (and preferably also to determine the precision of these estimates). However, the special nature of the price surveys has the result that the conditions of random sampling cannot often be satisfied or would call for unreasonable efforts.
19. One requirement of random sampling is the access to a sampling frame of the population of outlets, preferably in the form of a register of outlets with information on type of outlet, range of products and turnover. The data contained in such a register will very soon get out of date. Newly established enterprises or outlets will not be in the register, of course, but there are also other instances of under coverage. Outlets having large sales of a certain type of product can be missing from the sampling frame of that product group because the register information on line of trade, etc. fail to correspond with the actual state of things. It will seem that rather frequent updatings will be necessary. More current information can usually be found in a telephone directory, which can be very useful as a substitute for a specialised register or to supplement it.
20. The number of quotations for each article and accordingly the number of outlets in which the article is to be priced, is as a rule very small, for many products only ten shops or fewer. Experience shows that so small random samples are very often seen to be composed in a way that is far from being representative. Such extreme effects are easier to avoid with non-random sampling. This implies that rules of thumb might be needed as to how much your random sample should be allowed to deviate from a "normal" sample in order to be accepted. That is to say that the random sampling very often, in practice, has to be supplemented with non-random procedures based on personal judgements.

21. The sample of outlets for the CPI can sometimes be used. One should be aware, however, that the CPI-sample is designed basically for estimating price changes and that it may not be equally suited for estimating average prices.
22. A fact deserving attention in this context is that the average prices of each country are computed centrally at Eurostat according to a formula common to all countries, i.e. as unweighted arithmetic averages. The sampling method has to comply with these calculations and must not require a different estimation formula. This must be borne in mind when contemplating a sampling method that may require weighting, such as disproportionate stratified sampling. PPS-sampling with probabilities proportionate to turnover, which requires harmonic averages, cannot be used for this reason.

Control of non-random sampling

23. It need hardly be said that the sample of outlets is of vital importance for the estimation of the average prices and has to be designed with great care. The selection of the shops should therefore be under the control of the central staff, so that they are in a position to determine the composition of the sample. The price collectors should on no account be permitted to select outlets at their own discretion. If the central staff is prevented by local circumstances from selecting individual outlets, they should give very clear and detailed instructions to the field staff regarding the desired characteristics of the outlets that are to be selected: outlet type and location in the first place, organisation (multiple/independent), and possibly also an indication of the price/quality profile of the shop.
24. Even if purely random samples are not practicable, it is nevertheless desirable to include random elements where it can be done. One example could be that the final sample for a survey or for a product group is drawn at random from a somewhat larger non-random sample which has been constructed in a subjective way in order to include representative outlets of various types in fixed proportions.
25. Information obtained from pre-surveys, e.g. which product groups are offered for sale, can prove invaluable at the final selection of outlets. See the chapter on pre-survey work.

Summary

26. The existing differences in retail market conditions and other institutional circumstances prevent the application of uniform procedures for the selection of outlets. Identical routines are not really necessary, however, provided that a few basic principles are observed in order to avoid biased results due to the composition of the sample of outlets. The following principles and guidelines should be applied (numbers refer to paragraphs in this chapter):
 - The sample of outlets should enable the calculation of a national average price for each selected product (1).
 - If spatial coefficients are used to convert prices of the capital city to national averages, the sample has to be in conformity with this adjustment (3).
 - The selection of outlets should be proportional to the share each type of outlet has of the quantities sold of the product concerned (13).
 - The selection of outlets should also be proportional to the actual distribution of sales in different areas (city centre, suburban, etc.). Do not concentrate the collection of prices to centrally situated shops in the city centre (16).

- **The selection should comply with accepted statistical practice. The possible use of registers, directories, etc. should be found out. Information obtained from pre-surveys can be utilised at the final selection of outlets (18-19).**
- **The shops should be selected by the central staff or according to detailed instructions from the central staff. The price collectors should on no account be permitted to select outlets at their own discretion (23).**
- **Considering the very small number of outlets in the sample, it will be wise to avoid expensive shops in fashionable locations and instead prefer medium-range shops (16).**
- **The specific conditions of multiple stores should be taken into account in the plans for the selection and for the price collection (17).**
- **The type of outlet that is to be indicated for each reported price should be classified according to the categories listed in paragraph 12, the definitions given in the annex and the instructions issued by Eurostat for each survey.**

9 TYPES OF PRICES

Definition of price

1. The objective of PPP surveys is to obtain national average prices for items which are representative of spending within each basic heading. Prices should be market prices, and pricing practices should be consistent with those used in the national accounts and in the national consumer price index. (See the chapter on general principles, paragraphs' 3-4.)
2. Consistency with national accounts pricing conventions is important because annual average prices are combined to provide indices which are used to convert countries' expenditure components of GDP to a common price basis. Observance of the consistency with national accounts has priority over the rule of market prices.
3. In practice, in order to keep costs down, most countries carry out price surveys in the capital or in a few cities only, and use prices collected within a short period of time. Conversion to an annual average price is carried out using national consumer price indices, hence the importance of consistency with pricing practices used in the national index. Prices obtained in the capital or any other part of the country and not representative of the national price level should be converted to national prices by regional coefficients. Such coefficients, when needed, can be determined from regional price surveys.

Use of centrally collected prices

4. For some goods, the same prices hold throughout the country. Examples are prices of postal charges, newspapers, and some utilities; the list will vary from country to country. A number of different cases of central pricing can be distinguished, but in each case the principle is the same: if there is good evidence that prices are uniform either nationally, (or in the case of capital city surveys, throughout the city) it is clearly more efficient to collect prices once, usually direct from the provider.
5. Utilities such as electricity or gas are often provided by one supplier at a uniform price, usually collected directly from the supplier. This procedure may be extended to cases where the number of suppliers is small and appropriate weights can be obtained to calculate average prices. An example would be telecommunications which in some countries have recently ceased to be a monopoly.
6. Other kinds of goods may be sold by many suppliers, but at regulated prices - for instance books, newspapers, pharmaceuticals. Again, this will vary between countries. In some countries recent trends towards deregulation have reduced the list of goods priced in this way. For instance in the United Kingdom, both books and pharmaceuticals may now be priced differently in different outlets. Price statisticians should ensure that recent developments are taken account of when deciding which items are suitable for central collection.
7. Some retailers (for instance some supermarkets) adopt a uniform pricing policy throughout the country, or within the region of the capital. Where the approximate market share is known, it may be more efficient to obtain prices direct from the supplier. The prices can then be weighted together with others collected from surveys, to give average prices. However price statisticians need to satisfy themselves that claims of a uniform pricing policy are well founded before adopting this approach. (See also the chapter on selection of outlets, paragraph 17)

Catalogue prices

8. Catalogues may be useful in obtaining prices. Two cases can be identified:
- i) catalogues designed to sell goods through mail order: these may be used where a significant proportion of sales within the basic heading are by mail order. Here prices can be used in the same way as prices collected in stores. However collectors should ensure that the goods are still in stock and prices are unchanged. Delivery charges should be included in the price.
 - ii) catalogues used primarily for sales promotion rather than mail order: these are often found for furniture - an example is the IKEA catalogue. Again collectors should check on the price and availability of the goods. Delivery charges should not be included if sales take place mainly through stores.

Catalogue prices can be reported provided it is known for certain that the prices are applied without exception, i.e. that they are real market prices. Such catalogue prices must be distinguished from the list prices issued by some manufacturers or wholesalers for the guidance of retailers. List prices cannot be accepted for the PPP surveys as they do not reflect the actual price level on a competitive market. The only exception from this rule occurs if the list price is consistent with the valuation of the national accounts aggregates, see paragraph 2.

Delivery costs

9. Delivery costs should be excluded where possible. For goods which cannot be conveniently transported by the purchaser, prices quoted may include "free" delivery, for which the true cost cannot be separately identified. For these items' collectors should note whether the price is inclusive or exclusive of delivery charges, and any conditions for "free" delivery.

Taxes and other charges

10. The reported prices should include the VAT and other indirect taxes imposed on the goods or services. The prices of some services may vary according to whether the supplier is charging for taxes or other government charges. Generally, the specification will state whether or not certain taxes and charges should be included, or examples of both prices will be asked for. If the specification includes taxes, etc., problems in obtaining realistic price quotations may arise where it is common for some suppliers to avoid these payments. It is not for the price collector to make judgements about which is the "correct" price, but to collect the prices usually charged in the market place, and to make a note of the basis on which the prices have been estimated.

Sale goods and reduced prices

11. The prices to be collected for purchasing power parities' price surveys are market prices, that is, the prices at which the products are actually sold. Thus, for products which are permanently discounted below the "list" price, the discounted price should be used. However temporary reductions in price, whether in seasonal "sales" or as "special offers", should be disregarded, and the undiscounted price taken. The reason for disregarding temporarily reduced prices is a practical one: ideally, all prices should be taken account of. The omission of temporary reductions implies an assumption that the relative discounts in sale prices are the same between different countries. The case where reductions are extensive enough to affect the estimate of annual average prices is considered later.
12. Listed below are the main types of price reductions and promotional offers:

- seasonal sales: regular periods during which shops temporarily reduce prices both of regular goods and end-of-line or substandard products;

- discount days, when there are reductions either on all merchandise or selected lines;
- reductions available to selected groups, e.g. account holders, or holders of particular credit cards;
- extra goods offered free, e.g. "three for the price of two", "15% extra free";
- store vouchers or other offers for purchases over a given amount (typically found at furniture stores);
- permanently discounted products: some products may always appear labelled as "reduced"; others may appear at "list" price but are generally subject to negotiation (the most common example of this is automobiles);
- "cash-back" - a promise of a return of cash on completion of purchase, for instance in return for vouchers collected with the goods.

13. In coming to a decision about whether any type of reduced price should be taken in a price survey for purchasing power parities, three principles should be considered:

- the price recorded should be the market price;
- practices should be consistent with those used in compiling national accounts values;
- practices should be consistent with those used in compiling the national consumer price index.

14. It can readily be seen that many of the types of price reduction listed above should be disregarded for purchasing power parity price surveys for exactly the same reason as for consumer prices surveys, namely that they are not available to all purchasers at all times, or that they are of little value to some purchasers. Thus, temporary promotion, or discounts available to selected groups should be disregarded. However there are some special situations, discussed below, in which extra guidance is necessary.

Seasonal sales

15. The period for pricing should be chosen to avoid temporary price reductions or seasonal sales. However if sales last for much more than four weeks, and a good choice of articles is available throughout the period of the sale, there may be a case for including these prices in the survey. The decision should be guided by the pricing conventions used in the national consumer price index, as this index is used to convert the average prices obtained from the price surveys to the annual average prices for the calculation of the purchasing power parities.

Goods which are mainly bought in seasonal sales

16. There may be some cases where a substantial proportion of sales of a particular product takes place during the sales season at reduced prices. For example, in some countries large electrical goods such as refrigerators or washing machines are typically bought during sales. Here the standard method of pricing would lead to a distorted price parity. This is in effect an example of a seasonal product, and will be dealt with in that section.
17. The decision about whether such products should be treated as seasonal products are the responsibility of the price statistician rather than the price collector. Information about variation in price levels and the volume of sales should be used to determine whether the effect on average price levels over the year is likely to differ by 5 per cent or more from the normal price. For instance, if 50 per cent of sales of washing machines take place during seasonal sales at 20 per cent below "normal" prices, then the average annual price is 10 per cent below the "normal" price, and so the item should be treated as a seasonal product.

End-of-line goods

18. Items no longer in demand which will not be re-stocked are described as "end-of-line goods". Examples are consumer durables which have been (or are about to be) replaced by more up-to-date models and "fashion" or seasonal items which are no longer in demand. A good test is to ask whether the item is likely to remain in stock, or in the case of clothing, to ascertain whether there is a good range of sizes available. Often end-of-line goods will be marked as such and sold at reduced prices. However even if prices are not reduced, they may not be representative of prices of goods currently in demand. For this reason, collectors should avoid taking the prices of end-of-line goods.
19. Where the item in question is a model specified in the survey, the collector should ascertain the nearest equivalent model currently being stocked, and price that instead. Full details of the substitute should be provided to Eurostat.

Extra size and similar offers

20. Among the many devices used by manufacturers to persuade purchasers to buy their goods is frequently found the "extra 15% free" offer on long-running lines such as instant coffee or toothpaste. There are many variants on this: "free" trial size, another product packaged "free" with the specified product. The correct procedure in this case is:
 - if possible, price the standard size;
 - if this is temporarily unavailable, price at a later date if practicable (within four weeks of the survey date); if it is still unavailable, price the special offer size, but make a note of the temporarily increased size (or any other "free" offer).

Permanently discounted prices

21. Some kinds of goods (or goods sold in some kinds of stores) may be subject to permanent "discounts". In these cases the reductions from list price are openly stated; usually the goods have never been sold at the higher price. In these cases it is the discounted price which is the market price, and should be taken by the collector.

Negotiated discounts

22. For some products, notably automobiles, discounts are generally available but not openly stated. In these cases, "list" prices will be available and buyers will attempt to negotiate a price below that level. The level of discount will vary between countries and between manufacturers.
23. The price required for the survey is that for a cash purchase, with no trade-in on a used car, and no "free" extras beyond the given specification. Countries will have to decide, in the light of their national circumstances, how this is obtained. Ideally the average level of prices actually paid in the period concerned should be obtained from a survey of individual dealers; but it is recognised that this may not be possible, or may be excessively costly. An alternative is to approach dealers' organisations, consumer organisations or manufacturers to obtain estimates of average levels of discount.

"Cash-back"

24. Manufacturers sometimes offer "cash-back" - a cash sum given to the purchaser typically in exchange for vouchers available with the product. In general these should be disregarded; often they impose some condition on the purchaser, and the proportion taken up is small. However where the value of the cash returned is large, and available to all purchasers without condition,

so that virtually all purchasers are likely to benefit, there may be a case for taking it into account. Countries should provide the price before "cash-back", the value of the "cash-back" and details of any restrictions which apply, e.g. period of application, ranges and models included. The treatment of such discounts in the national index should also be taken into account.

Summary

25. In summary, the principles to be applied in respect to discounts and seasonal sales are as follows (numbers refer to paragraphs in this chapter):
- the price to be collected is that at which the product is actually sold (11);
 - in general, all types of short period reduction should be ignored (15, 18, 20);
 - discounted prices should be taken for goods which are permanently reduced (or found in stores which offer permanent discounts) (21);
 - where a substantial proportion of annual sales of a particular product take place during the "sale" period, the procedure to be adopted should be that for seasonal products; such products should be treated as seasonal if the effect on average price levels is 5 per cent or more (16-17);
 - details of "cash-back" offers which are available to all purchasers and give cash rather than vouchers should be provided, if they amount to 5 per cent or more of the sales price, and in such a form that all purchasers benefit (24);
 - for products such as cars, where the market price is commonly arrived at by negotiation, an estimate of actual transaction prices is required (23).

Prices of seasonal products

26. Special procedures are needed for those products for which both prices and volume of sales vary substantially through the year. As well as the traditional examples of seasonal fruit and vegetables, there may be other products which have a seasonal pattern in the movement of prices and volume of sales. It is for countries' price statisticians to determine which products require special treatments because of seasonality.
27. Two principles should be adhered to: the survey should be timed so that the products are priced during the main season (periods of scarcity should be avoided), and in order to obtain annual prices, monthly price indices should be weighted by monthly volume of sales.
28. The procedures to be adopted in practice vary according to whether the product is identical with one included in the national price index; this may be the case for some seasonal fruit and vegetables. If there is good correspondence between specifications, then there will be no need to collect prices for the survey; the weighted annual price from the national price index may be used.
29. However in many cases the national average price may not be appropriate. The product specification used in the national index may not be closely comparable with that of the international price survey: it may be less precise than that required for international comparisons, or may differ in important respects. Alternatively, the product may not appear in the national index. Two cases may be distinguished:
- i) there is a sufficiently representative monthly price index in the national survey: in this case collect prices at the survey date and apply the weighted annual average index to give an estimated annual average price;

- ii) if no appropriate price index is available from the national index it will be necessary to carry out a special survey of prices, at several times during the year, covering the period when the product is available. Again, these prices should be weighted together to obtain an annual average price.

Goods mainly bought in seasonal sales

30. There may be some products which are predominantly sold at reduced prices during "sales", although they are available throughout the year. This is simply another example of a seasonal pattern in prices and sales, requiring a weighted annual average to be calculated. The method to be adopted for calculating annual prices should be one of those described above, as appropriate.

Summary

31. The following principles are to be applied to products where both volume and prices vary during the year:
- where there is close correspondence with the specification of a product in the national index, take the weighted average annual price;
 - where there is a representative monthly price index in the national index, obtain the product prices during the appropriate season, and use this index to obtain a weighted annual average price;
 - otherwise, obtain prices at several periods during the season, and use information about the volume of sales to obtain a weighted annual average price.

10 GENERAL DIRECTIONS FOR THE FIELD WORK

The use of this chapter

1. The Purchasing Power Parity (PPP) Programme is based on the principle of comparability. However, comparable results cannot be expected if two different survey methods are used. The methods applied for the PPP surveys in different countries do not have to be identical, but a certain degree of uniformity is required, nevertheless. The instructions guiding the field staff can and should be an instrument to harmonise methods in order to increase comparability.

2. This chapter contains two kinds of information intended for the price collectors:

- basic information about the PPP surveys; and
- hints and directions for the price collection.

Only the specific aspects relating to the PPP price surveys have been treated, not recommendations concerning the general behaviour of interviewers. Countries could use the chapter as a basis for the compilation or revision of their own detailed instructions.

3. The complete instructions for the price collectors in a country must also include all such directions as are needed in that country with respect to specific national circumstances and which cannot be incorporated in a universal edition. Such national circumstances may refer to the way of organising the surveys, the qualifications and experience of the field staff, administrative regulations, contacts with the statistical office, conditions governing the selection of outlets, how to deal with or classify special types of outlets, contacts with the establishments, special market conditions, timetables for the field work and for returning the completed forms, etc. It is the responsibility of the national statistical institutes (NSIs) to supply their price collectors with such a set of complete instructions.

Purpose and use of PPP-surveys

4. The price collectors must be able to explain to shop managers or others who are to authorise the price collection what the PPP surveys are and why the prices are needed.

5. International comparisons of economic quantities are being discussed or referred to every day in newspapers or other media. Such comparisons are required for many kinds of economic and political decisions by governments as well as by private enterprises. They are also of great interest to person's doing research and, not in the least, to the general public. The object of the Purchasing Power Parity Programme, which is organised jointly by the Statistical Office of the European Union (Eurostat) and the OECD, is to enable international price and volume comparisons, e.g. of the gross domestic product or of the consumption of households. The calculations for the comparisons require a set of national prices from each country. These prices are collected in price surveys which are carried out by the national statistical offices.

Coverage and organisation of PPP surveys

6. The PPP surveys comprise all goods and services included in the gross domestic product, i.e. goods and services consumed by households, government services, capital goods such as machinery and transport equipment, and construction projects. The price data are obtained from selected shops, from special enquiries, or from the calculation of construction costs. The price collection in the shops

refers to consumer goods and services. It is organised as six price surveys undertaken over a period of three years. There are two surveys each year. The six surveys cover the following product groups:

- 1.1 Major household appliances; recreational equipment;
- 1.2 Clothing and footwear; textiles;
- 2.1 Food, beverages and tobacco;
- 2.2 House repairs; water, fuel and power; operation of transport equipment; transport and communication services; recreational services;
- 3.1 Furniture and floor coverings; glassware, tableware and utensils;
- 3.2 Transport equipment; household operation; personal care; restaurants and hotels; remaining services.

7. The national statistical institutes are responsible for the price collections in their countries. It is also their duty to ensure that the consumption pattern of the country is well represented among the products for which prices are to be collected. This means that an adequate number of representative consumer goods (goods that are commonly available and sold in relatively large quantities) should be included in each product group. The price surveys are co-ordinated by Eurostat and the OECD. The data processing is done by Eurostat.

The stages of a price survey

8. For each of the six different price surveys during the three-year period the following operations are carried out (the description refers to the most common procedures; some countries may follow a somewhat different course of action):

- 1 The list of products from the previous survey of the same kind is reviewed and proposals for the updating of the list are prepared by each country and by Eurostat. Information on current products will be required and may be obtained from shops or from other sources. These preparations are very important for the final result. The proposals are then compiled by Eurostat and submitted to the working party in which all participating countries are represented.
- 2 The new or modified product specifications which have been approved by the working party are included in the list of products for the new survey and the updated list is distributed to the countries. Each country draws up the plans for its price collection.
- 3 The outlets from which prices are to be collected are selected by the NSIs. The selection must be representative of actual buying patterns.
- 4 Instructions are sent out to the price collectors together with the pricing forms and other relevant material. The instructions and the product list are discussed at a meeting between the price collectors and the central staff. Products that are not easily available in the country are in most cases excluded from the pricing forms.
- 5 The price collection takes place during the survey period that has been decided.
- 6 The completed forms are inspected at the NSIs. Missing information has to be completed and certain prices have to be checked in the shops by the price collectors.

- 7 The data input is usually carried out at the NSIs. Price averages are computed by several countries. Prices are compared between the shops. Comparisons are also made with the previous survey. New checks may be necessary. The data is then transmitted to Eurostat, usually on diskettes or by electronic mail.
- 8 The data processing begins at Eurostat. Analytical tables are produced and studied. Observations of inconsistencies and remarkable deviations, such as extreme price level indexes or very high price variation, are reported to the countries.
- 9 The NSIs examine the analytical tables and consider the observations made by Eurostat. Again, supplementary information may have to be obtained from shops or other sources. Corrections and verifications are reported to Eurostat.
- 10 Final data processing and presentation of results.

The list of products

9. The expenditures on GDP, the gross domestic product, are broken down into categories on different levels, the lowest level being 220 commodity groups referred to as "basic headings". The calculation of the purchasing power parities is undertaken on the basic heading level. Basic headings may be categories such as Fresh bread, Cheese, Mineral water, Men's footwear, Kitchen furniture, Radio sets, or Restaurant services, to take just a few examples. The product list is arranged according to basic headings.

10. A number of goods or services have been selected for pricing in each basic heading. The number can differ from two up to 50 or more, depending on the type of commodities in the basic heading. What is important about this selection is that each participating country must have its representative products included. All products selected for a basic heading are representative of one country or another but they are not necessarily representative of all countries. From the point of view of a certain country several products may be representative, while others may not be.

11. Now it is not necessary for a country to price all products within a basic heading. The calculation of purchasing power parities requires only that a country records the prices of its own representative products and also some of the non-representative products (because they are representative of other countries). The NSI of a country will decide which products need not be priced in that country.

12. There is in the list of products an exact and detailed definition of each product. In the case of many branded products, such as washing machines, cars, or TV-sets, brand and model are often specified in the definition. If the product cannot be identified by brand and model, the definition will specify a set of characteristics, such as material, size, design, quantity, packaging, etc. This is to make sure that only products of equal quality are compared.

13. Comparisons of products that differ in quality (or quantity) will have the result that quality differences (or quantity differences) will be mistaken for price differences. This means that errors will enter into both the international comparisons of prices and the international comparison of volumes.

Selecting outlets.

14. The sample of outlets for the PPP survey will be used to calculate a national average price for each product. We want the average price that is based on the sample to be a correct, unbiased estimate of the average price of all shops. The sample should therefore be a miniature representation of the total number of shops. The proportions of the sample should correspond to those found in the total population in at least two important respects:

- Outlet type: the selection of outlets should be proportional to the share each type of outlet has of the quantities sold of the product concerned.
- Location: the selection of outlets should also be proportional to the actual distribution of sales in different areas (city centre, suburban, etc.).

Other characteristics of the total population of outlets may also have to be reflected in the sample.

15. In most countries the outlets are selected by the central staff at the NSI and a list of the selected shops is given to each price collector. If, for some reasons, the outlets cannot be selected by a central procedure, the price collectors themselves will have to make the selection in the field. The selection must in such cases adhere strictly to the detailed directions provided by the NSI. These directions will specify:

- the type of outlet (supermarket, department store, traditional shop, market, etc.);
- in which part of the city the outlet is to be selected (centre, off-centre, suburb);
- type of city area (shopping street, shopping precinct, residential quarter);
- price/quality profile of shops.

16. It is generally advisable to avoid expensive shops in fashionable quarters as being non-representative of the average consumer pattern, and instead select medium-range shops. This strategy is an application of the rule that the selection should be proportional to the shares of quantities sold in different outlet types and types of areas.

Contacting the selected shops

17. Obviously, routines for the field work must be elaborated by the NSI and adapted to the local conditions. The experience of price collectors should be utilised; their views are clearly of great value. The recommendations which follow are of a general nature.

18. It is recommended to prepare a short letter to inform shopkeepers and shop managers of the price survey. Such an official letter of introduction can either be sent to the selected shops before the price collector's contact or be presented by the price collector, whichever is considered most appropriate. The letter might contain the following information:

- background and purpose of the PPP price surveys;
- in which period the price collection is to take place;
- status of the price collector and way of identification;
- that the prices of individual shops will be kept confidential and used only for statistical purposes;
- whether the participation is compulsory by law;
- references to relevant statutes relating to confidentiality and to compulsoriness;
- the name and telephone connection of a person at the NSI who can be contacted about the survey.

Some brief information on the use or publication of the results might possibly also be included in the letter.

19. It goes without saying that an indication of the survey period requires that it can be observed. It may be enough to indicate the survey month. If possible, one should prefer a day and hour for the

visit to the shop when the number of customers is comparatively low. However, if there are price reductions on certain days of the week one should take care that such days will not be over represented. Whether an appointment should be made before the visit must be considered in view of local practice or what is generally appropriate. Ordinarily, the person to contact is the shopkeeper or manager or similar person who is in a position to accept the price collector and deliver the information or offer the assistance of the staff.

20. A copy of the introductory letter should be brought along when visiting the shops. It may be preferable or even necessary to present the letter at the visit as it appears that the people who meet the price collector have not usually seen it; the posted letter having been sent to some office and left there or not reached the shop staff for some other reason. A few copies of the latest press release with PPP results may also come in handy. People are often curious to learn about the results of the survey and informative graphs or charts presenting price level comparisons are especially rewarding. The shop staff should be offered a copy if they take an interest. Needless to say, the price collector should always present an identity card issued by the NSI to prove his authorisation. The price collector may also find it proper to make it clear to the people who meet him that the assistance of the shop staff will not be required or required to a limited extent only (if this is so).

21. The price collector should be aware that the shop may have been visited during the PPP pre-survey in order to ascertain the type of outlet and the line of goods offered for sale. An additional visit may be required after the price collection in order to check the prices or other data. It can also happen that the shop is visited regularly by the price collectors for the Consumer Price Index.

22. It is extremely important to preserve the confidentiality of the data. Prices already collected in other shops must on no account be disclosed. This must be explained to the shop staff, if they ask questions, and the price collector must also take care to hold the documents in such a way that the prices cannot be observed during the work in the shop.

Finding an article according to the product definition

23. The basic document for the pricing is the list of products with its definitions. There are also annexes containing samples of textiles and pictures of some types of products, e.g. furniture, which will make it easier to identify these products. There are two types of definitions: (i) those in which brand and model are specified and (ii) the generic ones in which a number of technical characteristics are specified.

24. It is of vital importance that the product selected for pricing in the shop is the same as the one described in the product list. It has to adhere strictly to the product specification. If none of the products for sale coincides with the definition, one should price the nearest equivalent (the most similar product) provided that the differences are insignificant or can be related to the price, e.g. as small weight differences can. The price collector must always report all such deviations under "Observations". A different model number, or weight, or composition of a textile fabric, or types of packaging, are examples. It is then up to Eurostat or the person in charge of the survey at the NSI to decide whether the comparability is acceptable, whether some adjustment should be made, or whether the price has to be rejected.

25. It is advisable to get a first general view of the shop in order to see how the goods are arranged. This applies in the first place to clothing and household articles. Clothing articles, for instance, are frequently arranged by brands so that trousers and jackets and whatever of the same brand will be found together, instead of jackets among all other jackets, etc. irrespective of brand.

26. When trying to find articles according to the specifications of a certain basic heading, price collectors have found it practical to start with those articles that are defined by brand and after that goes on with the articles for which no brand is specified. One should ask the shop staff for brands which have not been found.

27. It is sometimes difficult to identify the specified item or an equivalent one. Clothing and TV and audio articles can be taken as examples but there are many more. The specifications of some clothing articles can be very detailed and it may seem almost impossible to find an equivalent item among the multitude of articles. Then one must give first priority to the most important characteristics such as type of garment and material, and pay less attention to details such as buttons and pockets. The details can then be used to select one of several items that matched the primary components.

28. If there are more than one article that matches a certain specification one should select the one which sells best, as it is likely to be the most representative one. The shop staff should know about this. The number of exposed units of each article can be an indication.

29. It happens very often that a specified model of a washing machine or a TV-set, etc. has been replaced by a new model after the product list was prepared. In that case the new model should be priced although it is not on the list. The new model is likely to be found also in some other countries which allows comparisons to be made. It will usually pay to make a central check-up with some producers or importers before the price collection start so as to keep up-to-date regarding products like TV and radio sets, computers, etc.

30. Another type of problem appears in the case of end-of-line goods which should generally be avoided. The procedure in the latter case is discussed below in the section on "Sales and other temporary price reductions".

31. When pricing foods in tins or jars' one must check whether it is the weight or the volume that has been indicated on the label. The quantity can sometimes be measured in grammes, sometimes in millilitres, and the two measures must not be mixed up, as a matter of course. The observed quantity will be used for transforming the observed price into a price per standard unit.

32. The product definition will sometimes specify "internationally well known brand" or "locally well known brand". The first expression should not create difficulties but the second one may give rise to some hesitation. Locally well known brands should exclude products with unknown origin. Fancy brands of imports from low-wage countries, e.g. of clothing articles, should most likely also be excluded. The very cheap products as well as the very expensive ones had also better be excluded. Sub-standard products should not be accepted. Locally well known brands are supposed to imply a medium quality. Multiple stores often have their own brands which can be affixed to clothing articles of various origins. These brands are certainly "locally well known" and should generally be accepted as such, provided the quality is not below standard. It should be possible to decide already at the selection of outlets which brands of this type cannot be accepted. One should always report the brand and, if possible, the country of origin when the specification asks for a locally well known brand.

33. There should be some way to communicate observations made by one price collector to the others. It happens quite often that a price collector learns something about a product - where to find it, what to avoid, an equivalent brand, etc. - that would save the other's work and trouble. Usually

the price collectors are so few that it would not mean a great deal of work to circulate such observations.

The prices to be recorded

34. The prices to be collected are market prices, that are the prices at which the products are actually sold. Hence, list prices issued by manufacturers or wholesalers cannot be accepted as they do not reflect the actual price level.

35. The value-added tax (VAT) and other indirect taxes imposed on the goods and services should be included. Delivery costs should be excluded where possible. For goods which cannot be conveniently transported by the purchaser, prices quoted may include "free" delivery, for which the true cost cannot be separately identified. For these items' collectors should note whether the price is inclusive or exclusive of delivery charges, and any conditions for "free" delivery.

36. For products which are permanently discounted below the "list" price, the discounted price should be used. Some kinds of goods (or goods sold in some kinds of stores) may always appear labelled as "reduced"; usually the goods have never been sold at the higher price. Consequently, it is the discounted price which is the market price, and should be taken by the collector. The reductions from list price are openly stated in these cases.

Sales and other temporary price reductions

37. There are several different types of temporary price reductions and promotional offers. The main types are listed below:

- seasonal sales: regular periods during which shops temporarily reduce prices both of regular goods and end-of-line or substandard products;
- discount days, when there are reductions either on all merchandise or selected lines;
- reductions available to selected groups, e.g. account holders, or holders of particular credit cards;
- extra goods offered free, e.g. "three for the price of two", "15% extra free";
- store vouchers or other offers for purchases over a given amount (typically found at furniture stores)

Temporary reductions in price, whether in seasonal "sales" or as "special offers", should be disregarded, and the undiscounted price taken. Discounts not available to all purchasers, only to selected groups, should also be disregarded. Some advice could be added, however:

38. Seasonal sales: The period for pricing should be chosen to avoid temporary price reductions or seasonal sales. However, if sales last for much more than four weeks, and a good choice of articles is available throughout the period of the sale, there may be a case for including these prices in the survey. If in doubt, collect both types of prices and note the relevant details.

39. End-of-line goods: Items no longer in demand which will not be re-stocked are described as "end-of-line goods". Examples are consumer durables which have been (or are about to be) replaced by more up-to-date models and "fashion" or seasonal items which are no longer in demand. A good test is to ask whether the item is likely to remain in stock, or in the case of clothing, to ascertain whether there is a good range of sizes available. Often end-of-line goods will be marked such as sold at reduced prices. However, even if prices are not reduced, they may not be representative prices of goods currently in demand. For this reason, collectors should avoid taking the price of end-of-line goods. Where the item in question is a model specified in the survey, the collector's

ascertain the nearest equivalent model currently being stocked, and price that instead. Full details of the substitute should be provided.

40. Extra size and similar offer: Among the many devices used by manufacturers to persuade purchasers to buy their goods is frequently found the "extra 15% free" offer on long-running lines such as instant coffee or toothpaste. There are many variants on this: "three for the price of two", "free" trial size, another product packaged "free" with the specified product. The correct procedure in this case is: if possible, price the standard size; if this is temporarily unavailable, price at a later date if practicable (within four weeks of the survey date); if it is still unavailable, price the special offer size, but make a note of the temporarily increased size (or any other "free" offer).

Checking the prices

41. It should be clear from the description above of the stages of a price survey that the price data are checked consecutively. The completed questionnaires are normally inspected when they reach the NSI. Missing information can then be completed and other corrections be made. The analytical tables produced by Eurostat during the processing of the data will draw the attention to unexpected price variation, suspicious-looking price levels or other inconsistencies which ought to be checked. Several countries make compilations of the price data, e.g. by means of a spreadsheet programme. Differing prices or quantities are easy to see when the prices are arranged item by item and compared between the shops. The choice of articles can also be compared in this way. This inspection will result in a large number of observations which have to be checked and verified or corrected. Contacts with the shops will be required in many cases to check some of these prices or to obtain supplementary information.

SURVEY E 95-II ON SERVICES



ITEM CODE	OUT-LET CODE	CON-VERTED PRICE	PRICE QUOTES	ARITH-METIC AVERAGE	MAX. PRICE	% DIFF. FROM AVER.	MIN. PRICE	% DIFF. FROM AVER.	VARI-ATION COEFF.
311.31R	*	7							
311.31R	*	7							
311.31R	*	7							
311.31R	*	7							
311.31R	*	7							
311.31R	*	7							
311.31R	*	7							
311.31R	*	7	7	4 105	4 725	15%	3 683	-10%	8%
311.32AA	*	1							
311.32AA	*	2							
311.32AA	*	1							
311.32AA	*	5							
311.32AA	*	5							
311.32AA	*	2							
311.32AA	*	2							
311.32AA	*	1							
311.32AA	*	5							
311.32AA	*	5							
311.32AA	*	5							
311.32AA	*	5							
311.32AA	*	5							
311.32AA	*	5							
311.32AA	*	5	15	378	470	24%	336	-11%	9%
311.32AB	*	1							
311.32AB	*	2							
311.32AB	*	1							
311.32AB	*	5							
311.32AB	*	5							
311.32AB	*	2							
311.32AB	*	2							
311.32AB	*	1							
311.32AB	*	5							
311.32AB	*	5							
311.32AB	*	5							
311.32AB	*	5							
311.32AB	*	5							
311.32AB	*	5							
311.32AB	*	5							
311.32AB	*	5	15	377	465	23%	340	-10%	9%

ENCUESTA DE SERVICIOS 1992 (OCT-NOV) 1995 (NOV-DIC)

ANNEX 2

POSICIONES ELEMENTALES	CODIGO ARTICULO 92 95	PRECIOS		VAR. 95/92	OBSERVACIONES COBERTURA REPRESENTATIVIDAD
		1992	1995		
87 REPARACION Y MANTENIMIENTO (MANO DE OBRA)					
Fontanero:Sust.grifos (Precio hora s/despl.)	311.31a	3 258	3 758	15%	No cobran desplazamiento Cobran por horas
Fontanero:Sust.grifos (Precio hora c/despl.)	311.31b				
Fontanero:Sust.grifos (Precio tarea c/despl.)	311.31c	3 258	3 758	15%	No cobran desplazamiento Cobran por horas
Fontanero:Sust.sanitarios (Precio hora s/despl.)	311.31d				
Fontanero:Sust.sanitarios (Precio hora c/despl.)	311.31e	2 281	2 529	11%	No cobran desplazamiento Cobran por horas
Fontanero:Sust.sanitarios (Precio tarea c/despl.)	311.31f				
Electricista:Inst.fusibles (Precio hora s/despl.)	311.31g				
Electricista:Inst.fusibles (Precio hora c/despl.)	311.31h				
Electricista:Inst.fusible (Precio tarea c/despl.)	311.31i	2 745			No cobran desplazamiento Cobran por horas Cobran por m2 Cobran por m2
Pintor:Techo 20 m2 (Precio hora s/despl.)	311.31j				
Pintor:Techo 20 m2 (Precio hora c/despl.)	311.31k				
Pintor:Techo 20 m2 (Precio tarea c/despl.)	311.31l	SUP	28 449		
Pintor:Habitación 60 m2 (Precio tarea c/despl.)	311.31m	SUP	83 995		
Pintor:Habitación 60 m2 (Tarea c/despl.)incl. cobertura	311.31n		84 419		
Mant. anual caldera fueloil (Precio tarea c/despl.)	311.31q	6 595	8 026	22%	
Mant. anual caldera gas (Precio tarea c/despl.)	311.31r	4 972	4 747		95(Calentador);92(Caldera mbda)
	16	8	8		50%
88 REPARACION Y MANTENIMIENTO (MATERIALES)					
Pintura latex interior. Diluyente:agua. Cubo 5l.	311.32a	475	378	-20%	95(Envase de 4l.);92(3l.)
Pintura latex interior. Diluyente:agua. Cubo 10l.	311.32ab		377		
Pintura latex exterior. Diluyente:agua. Cubo 10l.	311.32b	446	354	-21%	
Pintura sint.:Resina Alkyde. Diluy:White Spirit. Bote 1l.	311.32c		1 809		
Pintura sint.:Resina Alkyde. Diluy:White Spirit. Bote 0,5l.	311.32d		2 089		
Silicona transparente. Cartucho de aprox. 310 ml.	311.32e	1 759	1 427	-19%	
Masilla para cristales. Al peso o embalada	311.32e	157	209	33%	
Papel empapelar pintado:np/prencol.Rollo 53*10,05	311.32f	2 940	3 194	9%	
Papel empapelar pintado:np/prencol.Rollo 53*33 cm.	311.32g	1 563	1 507	-4%	
Papel empapelar pintado: KEA. Rollo 53*10,05	311.32h				
Saco de cemento gris de aprox. 1 Kg.	311.32i	767	262		92(Saco de 50 Kg.)
Agua:Inst. Empaques 500 97	311.32j				
	12	5	7		83%
	10	7	10		70%

Articulos nuevos o con cambios en sus especificaciones

EUROSTAT
B3 PPP

DATA TRANSMISSION ON DISKETTES

A large variety of software programs are being used by national statisticians to input and process data from PPP surveys; this variety is of course being reflected in the data transmitted from National Statistical Offices to EUROSTAT; nevertheless some rules should be respected in order to keep the burden for EUROSTAT within reasonable limits; here are the essential ones:

- 1) Physical devices: 3.5 inches
 5.25 inches HD

The best support is the nowadays very common 3.5 inches' diskette; both Single Density (720 Kbytes) and High Density (1.44 Mbytes are OK; old 5.25 inches floppy disks are still accepted , but we have sometimes problems reading the Single Density ones (360 Kbytes)

- 2) Disk formatting : DOS

Microsoft PC-DOS or OS2; i.e. files from any so called "Compatible "; Apple Mackintosh format is not standard.

- 3) Type of file : ASCII print-file
 ASCII delimited
 Spreadsheets

Best formats are ASCII print-file and ASCII delimited file; an ASCII print-file (also known as flat file) is a file containing only clear, printable characters, with a fixed column structure; the columns are separated by spaces. Most software's can produce such files which typically have the extension ".PRT "; for instance an ASCII print file will be produced by Symphony if you redirect a print to disk.

An ASCII delimited file is quite similar, except that the spaces between the columns are substituted by a single separator; so the file's structure is more compact; a clever separator is the Tabular character, because it helps reading the file in DOS; another typical (and less clever) separator is the " , " (Comma delimited) .

An example of Tabular delimited file is the Text (" .TXT ") file produced via EXCEL.

Other accepted formats are Spreadsheets from Symphony or Excel.

Data formatted DbaseII, DbaseIII can also be translated.

For any other format please contact EUROSTAT so that the best way of transferring data can be found.

- 4) General organisation of data : Clearly separated columns
 A line per priced item
 No ornaments !

Every column should be clearly separated; for instance: unit or quantity and price columns mixed together (Ex. 0.5lt=5.4 1lt=10.80) can be very confusing to a computer-software.

Every line should contain one item with its price and attributes (brand, type of outlet ...); files containing several prices per Article-code on the same line are not convenient at all.

The files (Text-file, Print-file or Spreadsheet) should be in the most possibly plane layout: no ornaments, no formulas in the cells, no imbedded formatting commands, no embellished numeric formats like currencies or commas between thousands, etc. etc.; the reason for that is that all ornaments must be removed to process the files and create price matrices, and removing takes extra time.

Zeros (0) and Os are not the same thing to a computer; mixing the two unluckily happens more often than one could expect.

- 5) Fields : The fields should be (at least) the following ones:

1. Article code : numeric plus alpha chars, according to the survey book.
2. Asterisk : a single " * " character (Y/N)
3. Type of shop : numeric; it is a code according to the well known rules.
4. Observed quantity : numeric; it is the pure quantity, expressed in the type of unit mentioned at 6.
5. Observed price : numeric
6. Type of unit : alpha; it is a descriptive datum, like Mt., CC, etc.
7. Unit quantity : numeric; it is expressed in the type of unit mentioned at 6; it is the quantity given in the definition, that can of course differ from the unit itself like 1 kg, 1 gr, 1 l
8. Unit price : numeric; it is the price converted to the unit quantity.
9. Brand : alpha.
10. Remarks : alpha.

Other optional fields:

- Date of survey:
not really necessary if the date is reminded in the title or in the accompanying letter.
- Country code: not necessary at all.
- Second type of unit: some times the observed quantity and the unit quantity could be expressed in different units: for instance in ounces and grams, or in volume and weight units, like liters and kilos . In this case a second column "type of unit "is necessary.

Titles, heading or footing lines: in reasonable quantity these lines can only help.

Here is an example of a "standard" presentation of a survey:

CODE	AST	TYPE SHOP	OBS PRICE	OBS. UNIT	MEAS QTY	UNIT PRICE	UNIT	BRAND	REMARKS
1103.41e	*	2	185	9.90	ML.	250		Promas	
1103.41e	*	2	200	12.90	ML.	250	13.38	4 Diamanten	
1103.41f	*	2	300	23.90	ML.	250		Ozean	
1103.41f	*	2	240	24.90	ML.	250	16.13	Elfin	
1103.41f	*	2	225	19.90	ML.	250		Warhanek	
1103.41f	*	2	150	18.90	ML.	250	19.92	Glyngore	
1104.41f	*	2	400	29.90	ML.	250		Warhanek	
1104.41b	*	2	0.125	13.90	KG.	1	25.94		Prepacked
1104.41b	*	2	0.125	14.90	KG.	1			Prepacked
1104.41b	*	2	1	129.00	KG.	1	22.12		Loose
1104.41s		2	0.125	19.90	KG.	1			Prepacked
1104.41s		2	1	179.00	KG.	1	31.50		Prepacked
1104.41s		4	1	219.00	KG.	1			Loose
1104.41s		4	1	199.00	KG.	1	18.69		Loose
44111g	*	1	1	1300.00	PC.	1		OXFORD	capienza 0,23
44111g	*	1	1	1730.00	PC.	1	111.20	CAPITOL	capienza 0,25
44111g	*	4	1	800.00	PC.	1			
44111g	*	4	1	1650.00	PC.	1	119.20	CAPITOL	
44111g	*	1	1	1800.00	PC.	1		CAPITOL	BORNIOLI
44111g	*	1	1	2000.00	PC.	1	129.00	CASA e TU	ROCCO
44111ga	*	1	5	5000.00	PC.	1		CASA e TU	serie GEO
44111ga	*	1	4	8000.00	PC.	1	159.20	CERVE	SERIE SOFIA
44111ga	*	1	4	2900.00	PC.	1		VETRAVIR	
44111ga	*	4	4	4000.00	PC.	1	179.00	CASA e TU	--
44111ga	*	4	4	4200.00	PC.	1			SERIE SOFIA
							219.00		
							199.00		
							1300.00		
							1730.00		
							800.00		
							1650.00		
							1800.00		
							2000.00		
							1000.00		
							2000.00		
							725.00		
							1000.00		
							1050.00		

11 REVIEW DATA BEFORE TRANSMISSION TO EUROSTAT

1. The National Statistical Institutes are responsible for collecting prices, using their own surveyors for the Consumer Prices Index (CPI), specialist surveyors for the Purchasing Power Parities Project or by sub-contracting the price collection to private firms. Given that the price collection is the most important stage of the process, it is therefore fundamental to make the most of the experience of stable teams of surveyors to make for consistent analysis in time and space.

Data collection and recording

2. Prices are normally collected during personal visits to establishments (that are selected following the rules set up in these guidelines) when the tailor-made questionnaires are completed. The special traits required of a surveyor are a serious attitude, discretion, the ability to adapt to different personal situations and a sense of responsibility. Only accurate and correct data enable indices to be calculated which match the reality which we are attempting to evaluate.
3. The design of the questionnaire used in collecting data must meet the following objectives, as a minimum:
 - i) it should ease the surveyors' tasks of collecting and checking prices;
 - ii) it should meet the basic requirements of Eurostat's data transmission standards (see circular of 07/10/94 "Data transmission on diskette"- Annex 3).

For most articles, therefore, the questionnaire used should have the following basic structure: at the top, it should state the code, name, specification of the article and its representativeness; it should have sufficient lines to include the information corresponding to the majority or all of the occasions on which each article is surveyed (an individual price quotation); the information on each such price quotation should include the following fields, at least: the numerical order of price quotation (first, second, third, ...), type and name of the establishment (by the latest type classification adopted), price observed, unit of observation (for ex.: 200 g, 1 kg, 1 l, ...), price converted to the con-version unit, brand and observations.

4. The data referring to the address of the establishment and identifying the declarants may be included in a different document (**Register of Establishments**), which will be extremely useful for the corresponding verification checks on the data to be conducted by personal visits or by requesting information over the telephone, fax, etc.
5. It is very important that every country should record and transmit the data with a common structure, to which end Eurostat has already compiled data transmission standards. Of these, the fields mentioned in the aforementioned document should be clearly indicated, bearing the following observations in mind:
 - i) the unit of observation for prices should be as close as possible to the requisite unit, as indicated in the specification;
 - ii) the converted prices should be calculated on the basis of the prices and units observed and of the conversion unit;
 - iii) the observations should briefly and clearly state all the characteristics of the specification for the articles which influence their prices and which differ from those indicated in the specification.

A more detailed explanation of the characteristics and the calculation of specific prices may be set out in a separate document.

6. Clearly structuring the above information will enable Eurostat to reach decisions on the necessary subdivision of articles or the withdrawal of certain prices. Thus, for each price, the unit of observation should be stated, along with the brand and the main differences vis-à-vis the characteristics indicated in the specification.

Tables and indicators used in data analysis

7. Data analysis should begin on receipt of the first data, i.e. as of the first three or four prices for most articles, and it should be exhaustive and detailed by the time the process of recording is complete. According to the information collected, a distinction could be made between the following kinds of analysis:
 - a) variability and detection of outliers
 - b) the distribution of establishments by type;
 - c) analysis of price levels over time;
 - d) coverage and representativeness;
8. The first two analyses may be pursued in a report at article level in which, taking the establishment codes and the converted prices, a series of indicators are obtained which enable us to analyse the distribution of establishments by type, price variability and identify extreme values, i.e. the coefficient of variation of the prices plus the maximum and minimum prices in absolute values and the percentage by which these differ from the average prices (See Annex 1).
9. Analysis of coverage and representativeness at the level of each article and basic heading, and time analysis of prices in the last two surveys may be dealt with in a new report (See Annex 2).

To complement the report of prices over time for the PPP Project, it will be necessary to consider changes in the course of time in price levels for basic headings and for the articles included in the CPI purchasing basket.

These controls will principally be aimed at detecting potential problems of coverage or representativeness and at uncovering errors arising in data collection or processing. They should also be more exhaustive and detailed on those basic headings which justify this by their weight or relative weight.

Controls, corrections and adjustments

10. The necessary controls on data represent one of the most significant stages in any statistical project, and this is particularly so in this project, given that a reduced number of prices have to support an international spatial analysis which is significantly more complex than any study at national level.
11. The first data controls are to be conducted before data collection is complete. Thus, after the visits to the main establishments, a meeting should be held to follow up the surveys with the following objectives:
 - i) solving practical problems on the correct identification of articles.
 - ii) time analysis of prices at the level of articles and of coverage and representativeness at the level of elementary positions.

Successfully achieving the above objectives will enable problems to be identified and remedied before proceeding to the next stage of the process. Correcting these problems at the right time will enable the subsequent stages of the process to be trimmed down and faster, and to obtain more accurate data.

12. **The correct identification of the articles is one of the general underlying principles of the project, as is the principle of comparability or equivalence. With particular reference to those generally defined products, the experience of the surveyors and the national and international co-ordinators will ensure that the price ratios are calculated on comparable articles defined by those of their characteristics which most influence prices.**
13. **Price analysis over time, based on changes in average prices between two subsequent surveys, may be conducted mainly on those areas for which there are no significant time changes in the definition of the articles: food; services; health care costs; clothing and footwear; other goods and services.**

The objective of this analysis is not to measure how prices change in time, but to check the consistency of the data while avoiding conversion errors and the miss-identification of articles. Thus, abnormally high or low changes in prices when compared with changes for identical or similar articles from the CPI or with other articles with very close specifications from the parities survey should also be explained in some way: errors in some survey data, significant changes in brands, establishments, forms of presentation, etc.

14. **Outliners are to be analysed in the light of the full information included in the questionnaires and by consulting surveyors or cross-checking with declarants. In the light of such consultations, the following may be considered sufficient grounds for correcting or withdrawing some:**
 - i) **recording or conversion errors, etc. to be attributed to any stage of the statistical process;**
 - ii) **low representative value due to the type of establishment or characteristics of the article since this is an isolated value.**

The importance of such analysis of representativeness is determined by the extent to which withdrawing a value influences the average price for an article.

Converting observed prices to the conversion unit

15. **In certain areas of expenditure (food, services, etc.), the observed prices for a substantial number of goods and services have to be converted to the conversion unit, as set up in the product specification.**

Avoiding recording the converted price, but obtaining this from the observed price and from the conversion and observed units will not only avoid the corresponding errors in data processing, but will also reduce the surveyors' and recorders' workload.

Provisionally, however, the surveyors are to convert the first prices on the questionnaire (see 11) in order to obtain a first average price comparable to that of the previous survey.

Allocating asterisks

16. **Equi-representativity is a fundamental principle in calculating parities. To comply with this principle, therefore, the basket of goods and services used in calculating parities at their various levels of breakdown should be equally representative of all the countries to be compared.**

The active involvement of the co-ordination body and of the participant countries in choosing the basket of articles concerned will enable a balanced basket to be obtained for all the countries to be compared. At the same time, this should correctly represent the structures of consumption in these countries.

In view of the exhaustive detail in which the principle of representativeness is underlined in the corresponding section of these guidelines, to the extent that even the practical principles of allocating asterisks in the various stages of the survey are analysed, we will dwell no further on this principle.

Summary

These guidelines on the control of data could be summarised as follows:

- Maintaining fixed teams of surveyors to make for greater consistency of analysis in time and space (1 above)
- Adapting the structure of the questionnaire and recording file to the data transmission standards (3)
- Conducting a first control on data at a monitoring meeting when the main establishments have been visited (11)
- Avoiding recording the converted price, obtaining this from the observed price, the observed quantity/unit and the conversion quantity/unit (15)
- Scrutiny and analysis of results after recording must be exhaustive, particularly with regard to those articles and basic headings whose relative weighting justifies this. The corresponding reports should be based on the following analyses:
 - distribution of establishments by type
 - coverage and representativeness of basic headings
 - detection of outliers and variability of prices
 - evaluation of prices in time against those from the preceding survey, taking changes in identical or comparable articles in the CPI as a reference.

12 PROCESSING AND ANALYSIS OF THE DATA

13 UPDATING OF THE PARITIES



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uw brief van
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ons kenmerk
our reference 03430-96-SCP

bijlage(n)
enclosure(s)

onderwerp
re Follow-up of 1994 review of the methodology (draft report to the Council A64/96/20)

Voorburg, 19 November 1996

Dear Mr. Astin,

On several occasions, Statistics Netherlands expressed its concerns on the housing parity methodology. A lot of efforts have been put in improving several aspects of the method. Still we have doubts whether this has led to getting closer to reality. As far as the Netherlands are concerned, we are still of the opinion that the method of the rent survey is inadequate when the aim of the method is to compensate EU-officials for their housing costs. For bread, meat, clothing, etc. representative items can be chosen as a basis for price comparisons, no matter what kind of bread or meat the official consumes in reality. Housing is a different matter as far as we are concerned.

In the Petten case special arrangements have been made for the officials. A special quarter has been built where hundreds of officials live. It seems to us that one should take the actually paid rents into consideration. Removing housing costs from the parity and dealing with these costs separately might be a way to improve things in this respect.

The introduction of a new Brussels expenditure structure (with a higher weight for rents) prompted me to draw your attention once more to this problem.

Yours sincerely,

(W.B. Camp)
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Letter of 14 November 1996 to Mr Astin from the Federal German Ministry of the Interior (Dr Riegel)

Re: Working Party under Article 64 of the Staff Regulations;
specifically: its meeting in Luxembourg on 29 October 1996

Ref: Report to the Council on the revision of the "Method" in the light of the 1994 results (Working document A 64/96/20)

Dear Mr Astin,

At the above-mentioned meeting it was agreed that the Member States have the opportunity to submit to you, by 15 November 1996, any comments they may have on the above-mentioned report to the Council.

After consulting Mr Szenzenstein, I am availing myself of this offer to send you the following comments. I should be grateful if you would incorporate them into the report to the Council or draw attention to them in an appropriate fashion.

The discussion of possible weaknesses in the present "Method" has led to a number of improvements from the statistical point of view. This has also meant, however, that in most cases the cost of gathering the statistical data on purchasing power has further increased. The efforts to achieve as accurate a method as possible once again show the consequences of continually refining the techniques with the resultant increases in cost, whereby it is still not possible to eliminate a certain range of statistical errors. This confirms the repeated demands by a number of Member States to limit, in terms of both staff and money, the expenditure on collecting and processing the data, while accepting certain limitations in the accuracy of the data. We therefore maintain our well-known political objections to various components of the "Method". In the political decision-making bodies, the German delegation will continue to press for a change in the "Method" with the aim of making it considerably simpler and more transparent for the data users, and this is also in the interests of those affected by it.

Yours sincerely,

Dr Riegel