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**CALCULATION OF THE 1999 RESULTS - EUROSTAT**

The aggregate-level calculations for 1999 were undertaken in accordance with ESA'95 and associated sub-classifications. The classification used as the basis of the calculations presented in this document is the following:

	<b>Element of GDP expenditure</b>	<b>Basic headings</b>	<b>Source</b>
1	Consumption by households	199	COICOP-PPP, March 1999
1	Net foreign balance	1	} Sub-ESA'95 classification; as presented in May 2001 to the PPP Working Party
2	Consumption by NPISH	6	
3	Consumption by government (individual)	29	
4	Consumption by government (collective)	10	
5	Gross fixed capital formation	35	
6	Movement in inventories and stock of valuables	2	
7	Balance of exports – imports	1	
	<b>Total GDP</b>	<b>283</b>	

Subsequently, the data on GDP expenditure and its breakdown for several countries was reviewed in collaboration with National Accounts experts within Eurostat and OECD, and revised breakdowns of the expenditure values were established. This particularly included efforts to improve the breakdown of expenditures within government consumption for healthcare and education, and the correction of errors such as reported non-negative values for imports/receipts from sales. It also included efforts to ensure greater consistency with information supplied separately to Eurostat Unit B2 and/or OECD at the latest in August. Where no information was forthcoming from participant countries, the breakdowns should be considered as the best possible estimates by Eurostat.

The following price surveys were used for establishing the Basic Heading parities:

1999 Rents
1999 Salary costs
E.96.3 Healthcare
E.97.1 Durable goods
E.97.2 Clothing and footwear
E.98.1 Food; beverages; tobacco
E.98.2 Services
E.99.1 Furniture
E.99.2 Personal transport equipment & Other goods
1999 Construction
1999 Equipment Goods

To establish survey-level national-annual-average PPPs for the 1999 exercise prices were updated to the average 1999 level using detailed price indices.

Basic heading level PPPs from surveys originally conducted before January 1999 (i.e. E.96.3, E.97.1, E.97.2, E.98.1 and E.98.2) were converted from ESA'79 format to ESA'95 format using the linkage table developed by Eurostat.

PPPs for Bulgaria, Estonia, Latvia, Lithuania, Romania for basic headings covered by the surveys which were conducted before January 1999 were derived by extrapolation of the 31-country PPPs established for 1998. For survey E.96.3 this method also applies to Czech Republic, Hungary, Slovakia and Slovenia.

The basic headings for which reference PPPs are calculated, and the basis of their calculation are listed in the Annex. This follows the agreement between Eurostat and OECD.

The outcome of the foregoing procedures is a complete matrix of EKS parities between the 31 participant countries, for each of the 283 basic headings. These parities are then standardised and scaled to the geometric mean of the exchange rates to the ECU of the participant countries. As a result the sum of GDP of the EU-15 countries is the same whether expressed in ECU or in PPS. This scaling has no impact on the relativities between the countries.

The aggregation calculations have been undertaken in the usual manner, as bilateral Laspeyres/ Paasche/ Fisher parities, made transitive by applying the EKS formula. Absolute GDP values were used instead of negative values were used as before. In line with the agreed policy, fixity was applied at the level of the EU-15 bloc. The aggregate level parities were scaled in the usual way so that the sum of GDP of the EU-15 countries is the same whether expressed in Euro or in PPS.

The calculated parities at aggregate level, together with the market exchange rates, the corresponding GDP expenditure values in national currency and the estimates of total population were used to produce the standard 14 tables of results

in "SNA" format – i.e. ESA'95 concept of final consumption expenditure ;  
and

in "ICP" format – i.e. ESA'95 concept of actual individual consumption

By reference to the figures established for 1998, changes to the aggregate level results are due to the multiple changes to input data (i.e. recalculated parities at basic heading level; updated expenditure structures at basic heading level) and the changes made to procedures (switch to new classification; consequent recalculation of proxy PPPs; fixity at EU-15 level).

## Annex

### Basic headings for which reference PPPs shall be calculated

This table refers to the sub-ESA'95 classification with 283 basic headings which was developed for use in the 1999 PPP aggregation exercise. It should therefore be considered to be an interim table, pending a final decision on the sub-ESA'95 classification to be used for all areas of GDP..

In this table, PPPs for certain basic headings are automatically calculated as "Hierarchical" PPPs by reference to the coding structure (wherein for example "11" is an aggregate of "1101, 1102, etc"). PPPs for other basic headings are automatically calculated by reference to other, specified "**Non-hierarchical**" basic headings.

Note: PPPs for some of the basic headings concerned may become available from future price surveys, but solutions have still to be found for the current aggregation exercise.

The approach taken in this table is based on an agreement reached between Eurostat and OECD in November 1999 concerning the sub-ESA'79 classification which was then in use, and an agreement concerning the current classification which was reached during bilateral discussions during May and June 2001.

Code	Narrative	Type	Basis		BH
<b>Final individual consumption expenditure by Households</b>					
1102311	Narcotics	<b>Non-hierarchical</b>	11	Final consumption expenditure by households	175
1104121	Other actual rentals	Hierarchical	11041	Actual rentals of housing	3
1104221	Other imputed rentals	Hierarchical	11042	Imputed rentals of housing	3
1104421	Refuse collection	Hierarchical	11044	Water supply and miscellaneous services	4
1104431	Sewerage collection	Hierarchical	11044	Water supply and miscellaneous services	4
1104441	Other services relating to the dwelling n.e.c.	Hierarchical	1104	Actual rentals of housing	3
1104551	Heat energy	Hierarchical	11045	Electricity, gas and other fuels	6
1105623	Other household services	Hierarchical	110562	Domestic services and household services	3

1106314	Hospitals – Intermediate consumption – Pharmaceutical products	Non-hierarchical	1302221	Production of health services – Intermediate consumption - Pharmaceutical products	1
1106315	Hospitals – Intermediate consumption – Therapeutic appliances and equipment	Non-hierarchical	1302223	Production of health services – Intermediate consumption - Therapeutic appliances and equipment	1
1106316	Hospitals – Intermediate consumption n.e.c.	Non-hierarchical	1302224	Production of health services – Intermediate consumption – Intermediate consumption n.e.c.	1
<b>Code</b>	<b>Narrative</b>	<b>Type</b>	<b>Basis</b>		<b>BH</b>
1106317	Hospitals – Consumption of fixed capital	Non-hierarchical	130223	Production of health services – Gross operating surplus	1
1106318	Hospitals – Net taxes on production	Hierarchical	11063	Hospital services	7
			Excluding		
			1106318	Net taxes on production	
			1106319	Net operating surplus	
1106319	Hospitals – Net operating surplus	Hierarchical	11063	Hospital services	7
			Excluding		
			1106319	Net operating surplus	
1107141	Animal drawn vehicles	Non-hierarchical	11	Final consumption expenditure by households	175
1107351	Combined passenger transport	Hierarchical	11073	Transport services	9
1108211	Telephone and telefax	Non-	11091	Audio-visual,	24

	equipment	hierarchical		photographic and information processing equipment	
1109431	Games of chance	Non-hierarchical	11	Final consumption expenditure by households	175
1109611	Package holidays	Non-hierarchical	11073	Transport services	24
			1111	Restaurants and hotels	
1110111	Education – Pre-primary and primary	Non-hierarchical	13042	Production of education services	8
1110211	Education – Secondary	Non-hierarchical	13042	Production of education services	8
1110311	Education – Post-secondary	Non-hierarchical	13042	Production of education services	8
1110411	Education – Tertiary	Non-hierarchical	13042	Production of education services	8
1112211	Prostitution	Non-hierarchical	11	Final consumption expenditure by households	175
1112411	Social protection	Non-hierarchical	1305	“Social protection”	1
1112511	Life insurance	Non-hierarchical	11	Final consumption expenditure by households	175
1112521	Insurance connected with the dwelling	Non-hierarchical	11	Final consumption expenditure by households	175
1112531	Insurance connected with health	Non-hierarchical	11	Final consumption expenditure by households	175
1112541	Insurance connected with transport	Non-hierarchical	11	Final consumption expenditure by households	175
1112551	Other insurance	Non-hierarchical	11	Final consumption expenditure by households	175

1112611	FISIM	Non-hierarchical	11	Final consumption expenditure by households	175
Code	Narrative	Type	Basis		BH
1113111	Balance of expenditures of residents abroad and expenditures of non residents on the economic territory	Non-hierarchical	-	Exchange rate of national currency to the Euro	1
Final individual consumption expenditure by NPISH					
1201111	Housing	Non-hierarchical	11041	Actual rentals for housing	3
1202111	Health	Non-hierarchical	13022	Production of health services	10
1203111	Recreation and culture	Non-hierarchical	1303	Recreation and culture	1
1204111	Education	Non-hierarchical	13042	Production of education services	8
1205111	Social protection	Non-hierarchical	1305	Social protection	1
1206111	Other services	Non-hierarchical	12	Individual consumption expenditure by NPISH	5
			Excluding		
			1206111	Other services	
Final individual consumption expenditure by Government					
1301111	Housing	Non-hierarchical	11041	Actual rentals for housing	3
1302111	Health benefits and reimbursements – Pharmaceutical products	Non-hierarchical	1106111	Pharmaceutical products	1
1302112	Health benefits and reimbursements – Other medical products	Non-hierarchical	1106121	Other medical products	1
1302113	Health benefits and reimbursements – Therapeutic appliances	Non-hierarchical	110613	Therapeutic appliances and equipment	2

	and equipment				
1302121	Health benefits and reimbursements – Out-patient medical services	Non-hierarchical	110621	Medical services	2
1302122	Health benefits and reimbursements – Out-patient dental services	Non-hierarchical	110622	Dental services	1
1302123	Health benefits and reimbursements – Out-patient paramedical services	Non-hierarchical	110623	Paramedical services	3
1302221	Production of health services – Pharmaceutical products	Non-hierarchical	1106111	Pharmaceutical products	1
1302222	Production of health services – Other medical products	Non-hierarchical	1106121	Other medical products	1
<b>Code</b>	<b>Narrative</b>	<b>Type</b>	<b>Basis</b>		<b>BH</b>
1302223	Production of health services – Therapeutic appliances and equipment	Non-hierarchical	110613	Therapeutical appliances and equipment	2
1302224	Production of health services – Intermediate consumption n.e.c.	Non-hierarchical	11	Final consumption expenditure by households	175
1302231	Production of health services – Gross operating surplus	Non-hierarchical	15	Expenditure on gross fixed capital formation	34
1302241	Production of health services – Net taxes on production	Hierarchical	13022	Production of health services	8
			Excluding		
			1302241	Net taxes on production	
			1302251	Receipts from sales	
1302251	Production of health services – Receipts from sales	Hierarchical	13022	Production of health services	8
			Excluding		
			1302251	Receipts from sales	

1303111	Recreation and culture	Hierarchical	13	Individual consumption expenditure by government	27
			Excluding		
			1303111	Recreation and culture	
			1305111	Social protection	
1304111	Education benefits and reimbursements	Non-hierarchical	13042	Production of education services	8
1304221	Production of education services – Intermediate consumption	Non-hierarchical	11	Final consumption expenditure by households	175
1304231	Production of education services – Gross operating surplus	Non-hierarchical	15	Expenditure on gross fixed capital formation	34
1304241	Production of education services – Net taxes on production	Hierarchical	13042	Production of education services	6
			Excluding		
			1304241	Net taxes on production	
			1304251	Receipts from sales	
1304251	Production of education services – Receipts from sales	Hierarchical	13042	Production of education services	6
			Excluding		
			1304251	Receipts from sales	
<b>Code</b>	<b>Narrative</b>	<b>Type</b>	<b>Basis</b>		<b>BH</b>
1305111	Social protection	Hierarchical	13	Individual consumption expenditure by government	27
			Excluding		
			1303111	Recreation and culture	
			1305111	Social protection	

<b>Final collective consumption expenditure by Government</b>					
1401121	Intermediate consumption n.e.c.	Non-hierarchical	11	Final consumption expenditure by households	175
1401122	Intermediate consumption (Defence)	Non-hierarchical	1501	Expenditure on gross fixed capital formation – Machinery and equipment	21
1401131	Gross operating surplus n.e.c.	Non-hierarchical	15	Expenditure on gross fixed capital formation	34
1401132	Gross operating surplus (Defence)	Non-hierarchical	15	Expenditure on gross fixed capital formation	34
1401141	Net taxes on production n.e.c.	Hierarchical	14	Collective consumption expenditure by government	6
			Excluding		
			140114	Net taxes on production	
			140115	Receipts from sales	
1401142	Net taxes on production (Defence)	Hierarchical	14	Collective consumption expenditure by government	6
			Excluding		
			140114	Net taxes on production	
			140115	Receipts from sales	
1401151	Receipts from sales n.e.c.	Hierarchical	14	Collective consumption expenditure by government	6
			Excluding		
			140115	Receipts from sales	
1401152	Receipts from sales (Defence)	Hierarchical	14	Collective consumption expenditure by government	6

			Excluding		
			140115	Receipts from sales	
<b>Expenditure on gross fixed capital formation</b>					
1501191	Precision instruments	Hierarchical	150119	Precision and optical instruments, photographic equipment	1
1501321	Boats, steamers, tugs, floating platforms, rigs	Hierarchical	15013	Transport equipment	
1501322	Locomotives, rail-cars vans and wagons, other rail equipment	Hierarchical	15013	Transport equipment	
<b>Code</b>	<b>Narrative</b>	<b>Type</b>	<b>Basis</b>		<b>BH</b>
1501323	Aircraft, helicopters, hovercraft and other aeronautical equipment	Hierarchical	15013	Transport equipment	
1503111	Other products n.e.c.	Hierarchical	15	Expenditure on gross fixed capital formation	31
			Excluding		
			1503	Other products	
1503113	Products of agriculture, forestry, fisheries and aquaculture	Hierarchical	15	Expenditure on gross fixed capital formation	31
			Excluding		
			1503	Other products	
<b>Changes in inventories and acquisitions less disposals of valuables</b>					
1601111	Changes in inventories	Non-hierarchical	11	Final consumption expenditure by households	
			15	Expenditure on gross fixed capital formation	
			Excluding		
			1103141	Cleaning, repair and hire of clothing	

			1103221	Repair and hire of footwear	
			11041	Actual rentals for housing	
			11042	Imputed rentals for housing	
			1104321	Services for the maintenance and repair of the dwelling	
			11044	Water supply and miscellaneous services relating to the dwelling	
			110451	Electricity	
			1104521	Town gas and natural gas	
			1104551	Heat energy	
			1105131	Repair of furniture, furnishings and floor coverings	
			1105331	Repair of household appliances	
			110562	Domestic services and household services	
			1106	Health	
			1107231	Maintenance and repair of personal transport equipment	
<b>Code</b>	<b>Narrative</b>	<b>Type</b>	<b>Basis</b>		<b>BH</b>
Cont...			1107241	Other services in respect of personal transport equipment	
			11073	Transport services	
			1108111	Postal services	
			1108311	Telephone and telefax services	
			1109151	Repair of audiovisual,	

				photographic and information processing equipment	
			1109231	Maintenance and repair of other major durables for recreation and culture	
			1109351	Veterinary and other services for pets	
			11094	Recreational and cultural services	
			1109611	Package holidays	
			1110	Education	
			1111	Restaurants and hotels	
			111211	Hairdressing salons and personal grooming establishments	
			1112211	Prostitution	
			1112411	Social protection	
			11125	Insurance	
			11126	Financial services n.e.c.	
			1112711	Other services n.e.c.	
			1502	Construction	
1602111	Acquisitions less disposals of valuables	Hierarchical	111231	Jewellery, clocks and watches	1
1701111	Balance of exports and imports	Non-hierarchical	-	Exchange rate of national currency to the Euro	1

## Notes

1. In the table above, the PPP for 11 “Final Consumption of Households” is used for the following ten basic headings:

- 1102311 “Narcotics
- 1107141 “Animal-drawn vehicles”
- 1109431 “Games of chance”
- 1112211 “Prostitution”
- 1112511 “Life insurance”
- 1112521 “Insurance connected with the dwelling”
- 1112531 “Insurance connected with health”
- 1112541 “Insurance connected with transport”
- 1112551 “Other insurance”
- 1112611 “FISIM”

The calculation of the PPP for 11 “Final Consumption of Households” is done excluding these ten basic headings.

The calculation also excludes the PPPs for which reference PPPs outside household consumption are established, namely the nine basic headings 1106311 to 1106319 relating to “Hospitals” and the four basic headings “1110111 to 1110411 relating to “Education” and the basic heading 1112411 “Social protection”.

The calculation is therefore done by reference to (199-10-9-4-1=) 175 basic headings.

2. In the table above, the three basic headings 1302224 “Production of health services – Intermediate consumption n.e.c.” and 1304221 “Production of education services – Intermediate consumption” and 1401121 “Government – Intermediate consumption n.e.c.” also use a PPP for 11 “Final Consumption of Households”. This is the same PPP as calculated above.

3. The calculation of PPPs for healthcare is particularly problematic.

The results of the annual survey on public sector salary costs are used to establish parities for the following three basic headings:

- 1302211 “Production of health services – Compensation of employees – Physicicans”
- 1302212 “Production of health services – Compensation of employees – Nurses and other medical staff”
- 1302213 “Production of health services – Compensation of employees – Non medical staff”

The same data is used for the following three basic headings:

- 1106311 “Hospitals – Compensation of employees – Physicicans”
- 1106312 “Hospitals – Compensation of employees – Nurses and other medical staff”
- 1106313 “Hospitals – Compensation of employees – Non medical staff”

4. There are a smaller number of basic headings under the aggregate 11063 “Hospitals” than under the aggregate 13022 “Production of health services”. The basic headings under 11063 use the reference PPPs from headings under 13022. There

is no corresponding heading under 11063 for 1302222 “Production of health services – Other medical goods”, so the PPP for this heading is not taken into account for Hospitals.

5. There are a larger number of basic headings under the aggregate 1110 “Education” than under the aggregate 13042 “Production of education services”. The same reference PPP applies to each.