

# ECONOMY AND FINANCE

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Prices and purchasing power parities

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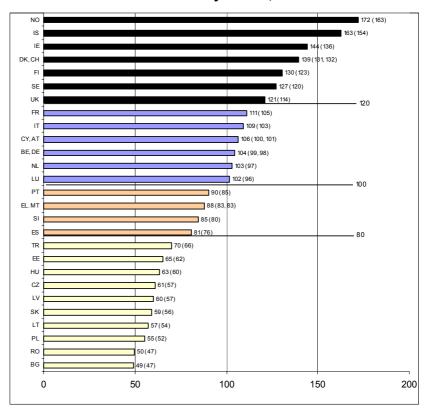
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# Eating, drinking, smoking – comparative price levels in EU, EFTA<sup>1</sup> and Candidate Countries for 2003

Within the framework of the European Comparison Programme (ECP) – in which Eurostat closely co-operates with the OECD - surveys on prices of household goods and services are cyclically carried out by National Statistical Institutes (NSIs). 31 countries are currently participating in the surveys co-ordinated by Eurostat: the 25 EU Member States, the three Candidate Countries and three EFTA countries, Iceland, Norway and Switzerland. OECD co-ordinates the surveys for the non-European OECD Member States. These price surveys are the cornerstones of the work resulting in annual volume comparisons of the main National Accounts aggregates, namely Gross Domestic Product (GDP) and its components in Purchasing Power Standards<sup>2</sup>.

Each survey relates to a particular group of products. The results presented in this article refer to the survey on Food, Beverages and Tobacco carried out in spring 2003 in the 31 participating countries. This survey covered a total of approximately 450 comparable products, enabling all countries to price a sufficient number of products representative of their consumption pattern.

Chart 1: Price level index for Food, beverages and tobaccooverall 2003 survey results, EU25=100



<sup>\*</sup>Figures in brackets on the graph: EU15=100

<sup>&</sup>lt;sup>1</sup> Excluding Liechtenstein

<sup>&</sup>lt;sup>2</sup> See methodological notes

### Box 1: What are Price level indices?

The indicators analysed in this article are Price level indices (PLIs), calculated as the ratio between Purchasing Power Parities (PPPs) and exchange rates for each country, in relation to the EU average.

These indices provide a comparison of the countries' price levels with respect to the European Union average: if the price level index is higher than 100, the country concerned is relatively expensive compared to the EU average and vice versa. Price level indices are not intended to rank countries strictly. In fact, they only provide an indication of the comparative order of magnitude of the price level in one country in relation to others, particularly when countries are clustered around a very narrow range of outcomes. The degree of uncertainty associated with the basic price data and the methods used for compiling PPPs, may affect in such a case the minor differences between the PLIs and result in differences in ranking which are not statistically or economically significant.

It is, therefore, preferable to use these indices to divide countries into groups of a comparable level, as done in this article. It should also be noted that the PLIs in this article have been calculated using 2003 price data, however, estimated expenditure data had to be applied, as expenditure data for 2003 will only become available in autumn this year. The PLIs may therefore change slightly when the preliminary PPP data 2003 are published in December 2004, based on 2003 expenditure data, rather than on estimates.

# Food, Beverages and Tobacco: Price level indices for 2003 – a comparison between EU, EFTA and EU Candidate Countries

Price level indices resulting from the 2003 survey on Food, Beverages and Tobacco are presented in **Chart 1**, highlighting the following country groups:

- **Group I** (≥120% of the EU average): United Kingdom, Sweden, Finland, Denmark, Switzerland, Ireland, Iceland and Norway;
- **Group II** (≥100% and <120% of the EU average): Luxembourg, the Netherlands, Belgium, Germany, Cyprus, Austria, Italy and France;
- **Group III** (≥80% and <100% of the EU average): Spain, Slovenia, Greece, Malta and Portugal;
- **Group IV** (<80% of the EU average): Bulgaria, Romania, Poland, Lithuania, Slovakia, Latvia, the Czech Republic, Hungary, Estonia and Turkey.

Chart 1 shows that disparities in the price level index between the EU countries are remarkable and lie between 55 (Poland) and 144 (Ireland) at total survey level.

This means that a comparable basket of food, beverages and tobacco in the most expensive EU country, Ireland, costs about 2.6 times more than in the least expensive country, Poland. Moreover, the distribution generally tends to reflect a geographical element with Southern and

Eastern EU countries (Poland, Lithuania, Slovakia, Latvia, Czech Republic, Hungary, Estonia, Spain, Slovenia, Malta, Greece and Portugal) below the EU average, and Central and Northern countries (Luxembourg, the Netherlands, Belgium, Germany, Austria, France, United Kingdom, Sweden, Finland, Denmark and Ireland) all above this average. However there are two exceptions to this rule, which are Cyprus (106) and Italy (109) where the PLIs are over the EU average.

Thus, most New Member States have price level indices lower than other EU Member States, ranging from 55 (Poland) to 106 (Cyprus).

The three EFTA countries appear to be among the most expensive in the survey group: Iceland (163) and Norway (172) in particular are significantly higher than Ireland (144), while Switzerland having the same index as Denmark (139).

Finally, two Candidate Countries, Bulgaria (49) and Romania (50), have PLIs below any of the EU Member States. But the third one, Turkey (70) is a bit closer to the EU average.

### Box 2: International price and volume comparisons

Eurostat participates in the "International Comparison Programme" (ICP), which has been running for 30 years. In Europe, Eurostat and the OECD co-operate within the framework of the "European comparison programme" (ECP), in which Eurostat annually establishes PPPs for the 25 EU Member States, the three EU Candidate Countries and three EFTA countries, Norway, Iceland and Switzerland. A rolling 3-year survey cycle is used for consumer prices. About one third of consumer goods and services are surveyed every year, and for the remaining two thirds, suitable consumer price indices are used for extrapolation in the intervening years. Rents and GDP weights are collected annually, as well as salaries in the government sector, which are used as proxy-PPPs for the respective part of this sector. Capital goods prices are collected every second year. For the remaining OECD member countries, the OECD follows the Eurostat survey cycle for consumer prices, whereas a benchmark-extrapolation approach is used for the other components, with PPP calculations every third year.





Table 1: 2003 Comparative price level indices for the main sub-groups of the survey, EU25=100

	BE	CZ	DK	DE	EE	EL	ES	FR	ΙE	ΙΤ	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	IS	NO	СН	BG	RO	TR
Overall survey	104	61	139	104	65	88	81	111	144	109	106	60	57	102	63	88	103	106	55	90	85	59	130	127	121	163	172	139	49	50	70
Food	107	59	137	107	66	90	84	114	125	115	98	60	57	119	62	82	106	111	53	93	91	58	122	123	103	155	155	158	51	50	68
Bread and cereals	103	50	150	109	61	93	104	114	122	106	102	54	51	116	51	80	103	123	50	99	99	49	141	132	89	178	156	152	40	47	56
Meat	122	53	142	117	62	76	71	124	118	112	75	53	46	128	53	69	113	119	47	82	88	50	119	121	116	154	184	215	47	41	72
Fish	120	62	118	122	59	98	75	117	120	124	117	58	55	121	62	91	102	107	56	97	89	65	103	109	96	124	128	147	59	61	68
Milk, cheese and eggs	101	65	110	94	71	116	87	111	128	126	119	69	68	106	74	92	108	98	54	106	83	68	106	115	104	153	143	131	76	71	94
Oils and fats	100	78	127	94	77	114	87	112	97	110	107	77	71	110	74	90	98	113	72	105	99	80	116	126	101	152	143	184	68	73	84
Fruit	117	65	138	110	75	68	88	123	140	116	96	72	66	136	65	73	105	110	52	78	84	63	116	122	100	132	140	132	50	46	56
Vegetables	94	59	142	105	64	80	86	113	143	123	92	58	56	133	66	91	115	111	53	86	100	51	153	126	100	177	146	150	43	47	49
Sugar, jam , honey, chocolate & confectionery	92	65	156	92	70	108	108	101	119	113	142	70	76	104	79	94	110	101	65	117	92	72	109	131	107	167	165	132	58	60	96
Food products n.e.c.	104	78	167	128	84	116	70	95	145	115	116	73	78	123	90	101	91	120	71	99	104	75	148	146	111	141	133	166	57	69	81
Non-alcoholic beverages	109	77	171	104	79	103	75	95	143	102	131	79	69	102	80	105	97	95	65	96	87	76	132	129	115	160	163	115	68	77	80
Coffee, tea and cocoa	107	81	130	114	69	106	77	89	146	113	130	85	66	110	96	87	89	114	62	105	94	96	110	106	120	133	106	126	76	97	88
Mineral waters, soft drinks, fruit and vegetable juices	110	76	190	101	86	102	74	98	143	100	131	74	72	99	75	112	101	89	67	93	85	67	141	141	114	169	192	112	65	71	75
Alcoholic beverages	87	79	131	88	89	92	78	87	182	102	149	93	83	83	74	120	98	92	88	105	83	70	181	152	150	217	250	106	54	69	158
Tobacco	108	50	140	104	39	73	73	125	184	89	110	29	31	82	53	95	96	101	35	68	56	52	123	127	206	178	232	99	28	21	40

### How to interpret this table?

The prices underlying this table are average annual national prices for the respective product groups. In the rows, the table provides a direct comparison of the price levels for the respective product group across all 31 participating countries. For example, the PLI for Oils and fats is 1% above the EU average in UK and 26% above the EU average in Sweden. Oils and fats are, therefore, in Sweden about 25% more expensive than in the UK (126/101=1.249).

By column, the table refers to the PLIs of different product groups within one country and the interpretation is more complicated. All PLIs are expressed relative to the EU average for the respective product groups. For example, for Fish the Portuguese price level is 3% below the EU average and for Oils and fats 5% above the EU average. In relation to the respective EU averages, therefore, Fish is relatively cheaper in Portugal than Oils and fats. However, the intra-country analysis of PLIs is limited because of the use of different scaling factors per product group and the general non-additivity of the underlying aggregation method. Another difficulty is that the intra-country comparison may not correspond to the opinion of the consumers about price differentials in their country as their daily price comparison may involve different regions within their own or the neighbouring countries (for people living close to the borders), rather than the EU average.

# 2003 Comparative Price level indices and price dispersion for the main sub-groups of the survey

**Table 1** (page 3) shows for all participating countries the comparative PLIs for the main sub-groups of products making up the total survey.

It is particularly interesting to compare in Table 1 the price level difference by product groups for countries having direct *land borders* with each other. This comparison has its limitations as the underlying prices are national average prices and those are not necessarily the ones consumers pay on both sides of the border.

However, the latter argument does apply less to smaller countries, so let's look at Luxembourg as an example. Luxembourg has borders with Belgium, France and Germany. While it is at about the same price level as Belgium and Germany, Luxembourg is about 9 % less expensive than France when it comes to food, beverages and tobacco in total. Looking at individual product groups, the picture is different. According to Table 1, Luxembourgers would gain financially by buying bread and cereals and vegetables in Belgium and meat, milk, cheese and eggs, oils and fats and fruits in Germany. For nonalcoholic beverages France (95) has clearly lower price level than Luxembourg (102) and the two other countries. Also for fish France have the lowest price level of the four countries. For alcoholic beverages, Luxembourg (83) is the least expensive country of the four, the three other being at about the same level (87-88). A remarkable price level difference again exists for tobacco, Luxembourg (82) being the cheapest of the four by some way. In France (125) tobacco products are more than 50% more expensive than in Luxembourg, in Germany (104) 26% and in Belgium (108) 31%, respectively.

Similarly, we can look at the Czech Republic and Slovakia. At the over all survey level price levels are very close to each other and also in many product groups as well. At the same time, the respective populations would gain for example by buying fish and coffee, tea and cocoa from the Czech Republic and vegetables and alcoholic beverages from Slovakia.

**Table 2** on this page is based on Table 1 and provides a measure of price dispersion within the Eurozone, the EU15, the EU25 and the group of all countries participating in the survey. The measure used is, for each product group, the difference between the maximum price level index and the minimum price level index of the respective group of countries, expressed as percentage of the minimum PLI of this group of countries. The bigger this number is the higher is price dispersion in the respective country and product group.

Table 2: Price dispersion for EUR12, EU15, EU25 and all 31 survey participants by product groups

	(MA	X-MIN	)/MIN* <i>′</i>	100
	EUR12	EU15	EU25	All 31
Overall survey	78	78	162	249
Food	49	64	158	217
Bread and cereals	52	68	206	341
Meat	79	98	206	423
Fish	64	64	126	169
Milk, cheese and eggs	47	47	139	186
Oils and fats	32	46	80	169
Fruit	106	106	169	203
Vegetables	91	91	198	314
Sugar, jam , honey, chocolate & confectionery	30	70	141	188
Food products n.e.c.	112	140	140	196
Non-alcoholic beverages	91	129	163	163
Coffee, tea and cocoa	89	89	136	136
Mineral waters, soft drinks, fruit and vegetable juices	94	158	184	195
Alcoholic beverages	135	135	162	361
Tobacco	171	203	616	989

The most striking feature of Table 2 is that the price level dispersion is greatest for tobacco, in all country groups. Alcoholic beverages also seem to have quite high price dispersion in different country groups. However, big price dispersion is no real surprise, as these products are subject to very different national regulations, excise duties and other taxes. The high price dispersion appears as, for example, Nordic countries and Turkey show PLIs for alcoholic beverages that are significantly higher than those of all other countries (see Table 1).

For tobacco products consumers have to pay in UK and Norway prices about 2 and 2.3 times respectively above the level of the EU average. In Latvia and Lithuania, on the other hand, such products are available at nearly 70 % below the average EU price level (see Table 1). In Bulgaria and Romania tobacco products are even cheaper than this (72 and 79 % respectively below the EU average).

Price dispersion is naturally greatest within the 31-country group of the survey participants, involving at the same time the high price EFTA and the mostly low price Candidate Countries, relative to the EU.

Table 3: 2003 results for Food and non-alcoholic beverages

Cross table of Comparative Price level indices, EU25=100

	EU25	BE	CZ	DK	DE	EE	EL	ES	FR	ΙE	IT	CY	LV	LT	LU	HU	MT	NL	ΑT	PL	PT	SI	SK	FI	SE	UK	IS	NO	СН	BG	RO	TR	1
EU25	100	93	166	71	94	150	110	120	89	79	88	99	162	173	86	157	119	95	91	184	107	110	169	81	81	96	64	64	65	193	195	145	EU25
BE	107	100	177	76	100	160	118	129	95	85	94	106	174	185	92	168	128	102	98	197	114	118	181	87	87	103	69	69	70	206	208	155	BE
cz	60	56	100	43	57	90	67	73	54	48	53	60	98	105	52	95	72	57	55	111	65	67	102	49	49	58	39	39	39	116	118	88	cz
DK	141	132	233	100	132	211	155	170	125	111	124	139	229	244	121	221	168	134	129	260	151	156	238	115	114	136	91	90	92	271	274	205	DK
DE	107	100	177	76	100	160	118	128	95	84	94	106	173	185	92	167	127	101	98	197	114	118	180	87	86	103	69	68	69	205	208	155	DE
EE	67	62	111	47	63	100	74	80	59	53	59	66	108	116	57	105	80	63	61	123	71	74	113	54	54	64	43	43	43	129	130	97	EE
EL	91	85	150	64	85	136	100	109	80	72	80	90	147	157	78	142	108	86	83	167	97	100	153	74	73	87	58	58	59	175	177	132	EL
ES	83	78	138	59	78	124	92	100	74	66	73	82	135	144	71	130	99	79	76	153	89	92	140	68	67	80	53	53	54	160	162	121	ES
FR	113	105	187	80	106	169	124	136	100	89	99	112	183	195	97	177	134	107	103	208	121	124	190	92	91	109	73	72	73	217	219	164	FR
IE	127	118	210	90	119	190	140	152	112	100	111	125	206	219	109	199	151	120	116	233	135	140	214	103	102	122	81	81	82	244	247	184	IE
IT	114	106	189	81	107	170	126	137	101	90	100	113	185	197	98	179	136	108	104	210	122	126	192	93	92	110	73	73	74	219	222	165	IT
CY	101	94	167	72	95	151	111	122	90	80	89	100	164	175	87	159	120	96	92	186	108	112	171	82	82	97	65	65	66	195	197	147	CY
LV	62	58	102	44	58	92	68	74	55	49	54	61	100	107	53	97	73	58	56	114	66	68	104	50	50	59	40	39	40	119	120	89	LV
LT	58	54	96	41	54	86	64	70	51	46	51	57	94	100	50	91	69	55	53	106		64	97	47	47	56	37	37	38	111	112	84	LT
LU	116	109	193	83	109	174	128	140	103	92	102	115	189	202	100	183	139	110	106	215		129	196	95	94	112	75	75	76	224	227	169	LU
HU	64	60	106	45	60	95	70	77	57	50	56	63	104	110	55	100	76	61	58	118		70	108	52	52	61	41	41	41	123	124	93	HU
МТ	84	78	139	60	79	126	92	101	74	66	74	83	136	145	72	132	100	80	77	155		93	142	68	68	81	54	54	55	162	163	122	МТ
NL	105	98	175	75	99	158	116	127	93	83	93	104	171	183	91	165	126	100	96	194		116	178	86	85	101	68	68	69	203	205	153	NL
AT	109	102	181	78	103	164	121	132	97	86	96	108	178	189	94	171	130	104	100	202		121	184	89	88	105	70	70	71	211	213	159	AT
PL	54	51	90	39	51	81	60	65	48	43	48	54	88	94	47	85	65	51	50	100	58	60	92	44	44	52	35	35	35	105	106	79	PL
PT	94	87	155	66	88	140	103	113	83	74	82	93	152	162	80	147	111	89	86	172		103	158	76	76	90	60	60	61	180	182	136	PT
SI	91	85 55	150	64	85 56	136	100	109	80	72	80	90	147	157	78 51	142	108	86	83	167	97	100	153	74	73	87 57	58	58	59	174	176	132	SI
SK	59 123	55 115	98 203	42 87	56	89	65	71 148	53 109	47 97	52 108	59	96	103 213	51 105	93 192	71 146	56 116	54 112	109 226		65	100 207	48	48	57 118	38 79	38 79	39 80	114 236	115 239	86 178	SK
FI SE	123	115	205	88 (	115	184 185	135 136	149	110	98	109	121 122	199 201	213	105	194	147	117	113	228		136 136	207	100	99	119	80	79	80	238	239	180	FI SE
UK	104	97	172	74	97	155	114	125	92	82	91	103	169	180	89	163	124	99	95	191	111	115	175	85	84	100	67	67	68	200	202	151	UK
ıs	156	145	258	110		233	171	187	138	123	137	154	252	269	134	244	185	148	142	287	166	172	262	127	126	150	100	100	101	300	303	226	ıs
NO	156	146		111	146	234	172	188	138	123	137	154	253	270	134	245	186	148	143	288		172	263	127	126	150	100	100	102		304	227	NO
СН	154	144	255	109	144	230	169	185	136	121	135	152	249	266	132	241	183	146	141	283		170	259	125	124	148	99	99	100	296	299	223	СН
BG	52	48	86	37	49	78	57	62	46	41	46	51	84	90	45	81	62	49	47	96	55	57	88	42	42	50	33	33	34	100	101	75	ВG
RO	51	48 /	85	36	48	77	57	62	46	41	45	51	83	89	44	81	61	49	47	95	55	57	87	42	42	49	33	33	33	99	100	75	RO
TR	69	64	114	49	65	103	76	83	61	54	60	68	112	119	59	108	82	65	63	127	74	76	116	56	56	66	44	44	45	133	134	100	TR
	00	γ.	117	70	00	100	, 0	00	V.	0-1	00	00	112	. 10	00	100	O.L	00	00	127	, ,	, 0	110	00	00	ÜÜ		-1-7	70	100	10-7	,00	

How to read the table?

The table should be read vertically. Each column indicates how many euro are needed in each of the countries listed in the rows to buy the same representative basket of *Food and non-alcoholic beverages*, which costs 100 euro in the country at the top of the column. For example, to buy the same basket of *Food and non-alcoholic beverages* products, costing 100 euro in Germany, will cost 116 euro in Sweden. In other words, Sweden is about 16% more expensive than Germany as regards for *Food and non-alcoholic beverages*. The PLIs of countries having a direct land border are marked in grey. Of course, cross-border trade can also be conducted directly via bridges or regular ferry traffic.

### Box 3: How are consumer price surveys organised?

For the purposes of the collection of <u>consumer prices</u>, the 31 countries currently participating in the group coordinated by Eurostat, are divided in three sub-groups that are organised as follows:

- the "Northern" group is composed of Finland, Denmark, Sweden, Iceland, Norway, UK, Ireland, Estonia, Latvia and Lithuania;
- the "Central" group is composed of Austria, Germany, Switzerland, the Netherlands, Belgium, Luxembourg, the Czech Republic, Hungary, Poland, Slovakia and Slovenia;
- the "Southern" group is composed of Portugal, Italy, France, Spain, Greece, Cyprus, Bulgaria, Malta, Romania and Turkey.

Currently Finland, Austria and Portugal are acting as group leaders. The idea behind this approach is to combine countries in a group, which have similar market structures and consumption pattern due to their similar geographical location. Consequently, each group of countries has group-specific product lists. Specific meetings in all three groups and one so-called "overlap" meeting are organised in order to ensure:

- a harmonised approach to the survey concerned in all participating countries,
- the right balance between comparability of products selected for the survey and their representativity of the expenditure pattern in each participating country,
- and sufficient overlap between the three group product lists for the overall European comparison. A particularly difficult problem in this process is a sufficient overlap between participating countries, as the consumption pattern differs still substantially in many countries.

The three group leaders co-ordinate the establishment of the group product lists, including pre-survey work and validate the prices collected in their respective group. Eurostat is responsible for the overall European co-ordination and PPP calculation.

For practical and cost reasons, the consumer price surveys are organised in a rolling cycle over three years, and they are carried out in the countries' capital cities in a specific survey month. Subsequently, the prices are adjusted to annual average prices, using monthly consumer price indices of the survey year and to national average prices, using spatial adjustment factors. Between survey years, benchmark results are extrapolated using annual average CPI. The prices observed are the market prices consumers actually pay, including all taxes and duties.

### Publication calendar 2004 for PPP related publications:

During the calendar year 2004 the following further PPP related publications have been published or are planned:

June 2004: Nowcast of the PPP 2003

December 2004: Personal appearance - comparative price levels 2003 December 2004: Final PPP results 2002 and preliminary results 2003



### > ESSENTIAL INFORMATION - METHODOLOGICAL NOTES

### **Use of Purchasing Power Parities**

PPP is a concept that is not immediately and easily understood. This has generated misunderstandings as sometimes PPPs are used for purposes for which they are not suited. In essence PPPs are price comparison in space and therefore the most recommended applications are spatial ones – i.e. comparisons of PPP converted indicators across countries at a given point in time. The most common usages of PPPs are to generate comparable volume measures in per capita terms across countries and to calculate general price level indices. They can be also used in other areas such as labour productivity comparisons at GDP level and in measuring the relative size of economies.

The differences in values of GDP between countries, even when revalued in a common currency using exchange rates, do not only correspond to a "volume of goods and services" component but also to a "level of prices" component, which can sometimes assume sizeable proportions. Exchange rates are determined by many factors, which reflect demand and supply on the currency markets, such as international trade and interest rate differentials. In other words, exchange rates usually reflect other elements than price differences alone. To obtain a pure comparison of volumes, it is essential to use special conversion rates (spatial deflators) which remove the effect of price level differences between countries. Purchasing Power Parities (PPPs) are such currency conversion rates that convert economic indicators expressed in national currencies to an artificial common currency, called Purchasing Power Standard (PPS). This conversion equalises the purchasing power of different national currencies.

Despite being designed for spatial comparisons, PPPs and related economic indicators can be used for intertemporal comparisons but with certain limitations and with necessary care. In addition, the sampling of items and price collection for PPPs are not designed to capture the pure price change over time as in the case of consumer price indices but price differentials over space. In effect, GDPs converted using PPP should be understood more like current price volume series.

Finally, it needs to be underlined that PPP-based indices cannot be used to establish a strict ranking of countries because PPPs are statistical constructs rather than precise measures. They provide only an indication of the relative order of magnitude in a country in relation to others in the comparison. Therefore, these indicators are best used to assign countries to groups as, for example, in all Eurostat and OECD publications on PPP. In Table 4 below the uses of PPP-based data are divided into three groups, "recommended uses", "uses with limitations" and "non-recommended uses" in a summary form.

Table 4: Uses and limitations of PPP-based data

Recommended uses	<ul> <li>Spatial volume comparisons of GDP, GDP per head, GDP per hour worked, size of economies</li> <li>Grouping of countries by volume index of GDP</li> </ul>
	Spatial comparisons of relative price levels
Use with limitations	Inter-temporal analysis of relative GDP per capita or relative prices
	Analysis of price convergence
	Cost of living index across countries
	• Use of PPP established for expenditure categories for the deflation of other values, as e.g. household income.
Non-recommended	As a precision tool to establish rankings between countries
uses	As a way of constructing national growth rates
	As a measure to generate output and productivity comparisons by industry (unless there are industry-specific PPPs)
	As a measure to undertake price level index comparisons at detailed level.
	As an indicator for the over- or undervaluation of a currency
	As equilibrium exchange rates

### To know more about:

"Purchasing Power Parities and Real Expenditures, 1999 Benchmark Year", OECD 2002

"Purchasing Power Parities and related economic indicators for EU, Acceding and Candidate Countries and EFTA. Revised 1995 – 2000, final 2001 and preliminary 2002 results" Statistics in Focus 64/2003, Eurostat, 2003



## Further information:

### Databases

NewCronos, Theme2, Domain: price/ppp

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### For information on methodology

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