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**Efni: Tvær tillögur til þingsályktunar**  
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Vísað er til tveggja bréfa allsherjarnefndar Alþingis dags. 21. október sl. þar sem leitað er umsagnar um tvær þingsályktunartillögur, annars vegar um matvælaverð á Íslandi, 3. mál, og hins vegar um matvælaverð hérlendis, á Norðurlöndum og í Evrópusambandinu, 7. mál.

Báðar hafa tillögurnar að markmiði að skýra verðmyndun á matvælum og veita aðhald við verðlagningu og er það vel.

Fyrri tillagan er um að bera saman matvöruframleiðslu og verslunarhætti á Norðurlöndum og í Evrópusambandinu í þeim tilgangi að leita orsaka fyrir mismunandi matvælaverði í þessum löndum. Bændasamtök Íslands styðja það heils hugar, að svona rannsókn fari fram, en benda jafnframt á, að þessi vinna er mjög vandasöm og nauðsynlegt er að vanda sem best til allra vinnubragða til þess að niðurstöðurnar verði trúverðugar. Þess má geta, að á vegum norrænna bændasamtaka fer fram vinna, sem beinist í sömu átt, og munu Bændasamtökin fúslega greiða fyrir gagnaöflun úr þeirri vinnu eftir því sem við á og hæfa þykir.

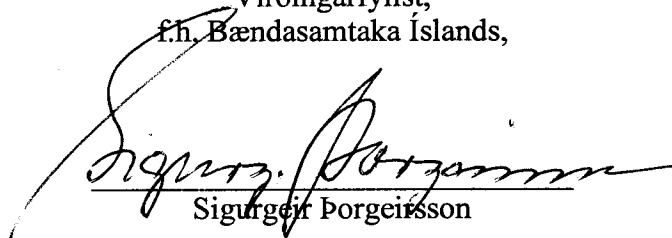
Þingsályktunartillögunni fylgir alllög greinargerð, sem gengur annars vegar út á að sýna þróun matvælaverðs hér á landi frá 1990 til 2001 og hins vegar er samanburður á verðlagi hér og í nokkrum öðrum löndum frá 1994 til 2000.

Sá hængur er á samanburðartölunum fyrir árið 1999 og 2000, að þær munu vera framreiknaðar af norsku hagstofunni út frá tölum ársins 1998, en forsendur fyrir þeim framreikningi koma ekki fram. Þar sem einstakar tölur úr þessum samanburðartölum hafa verið talsvert notaðar í umræðunni um þessi mál, skal bent á að fyrir liggur nýrri skýrsla frá Evrópuhagstofnunni EUROSTAT, þar sem borið er saman verð á matvælum, áfengi og tóbaki í 31 Evrópulandi, þ.m.t. Íslandi og öðrum Norðurlöndum, á árinu 2001. Hér er um

nýrri og beinan samanburð að ræða og því áreiðanlegri tölur, sem eðlilegra er að nota í umræðunni, og er því skýrslan látin fylgja hér með.

Hvað síðari þingsályktunartillöguna varðar, er einnig mælt með samþykkt hennar.

Virðingarfyllt,  
f.h. Bændasamtaka Íslands,



Sigurður Þorgeirsson

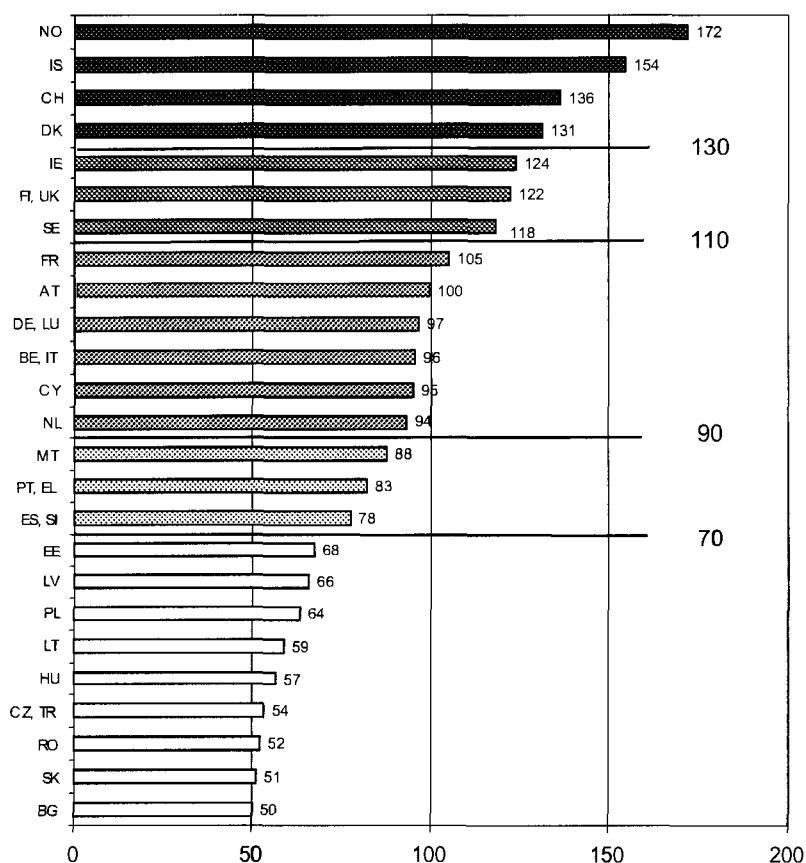
# Eating, drinking, smoking – comparative price levels in EU, EFTA<sup>1</sup> and Candidate Countries for 2001

*Silke STAPEL*

In 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 15 EU Member States, the 13 Candidate Countries, Iceland, Norway and Switzerland. OECD co-ordinates the surveys for the non-European OECD Member States. These price surveys are corner stones of the work resulting in annual volume comparisons of the main National Accounts aggregates: 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 2001 in the 31 participating countries. This survey covered a total of more than 550 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 tobacco – overall 2001 survey results, EU15=100**



<sup>1</sup> Excluding Liechtenstein

<sup>2</sup> see methodological notes

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PRICES AND  
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PARITIES

## Contents

Food, Beverages and Tobacco:  
comparative price levels for  
2001 – a comparison between  
EU, EFTA and EU Candidate  
Countries..... 2

2001 Comparative Price level  
indices and price dispersion for  
the main sub-groups of the  
survey..... 4



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### 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)<sup>3</sup> 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 level 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 statistically or economically not significant.

It is, therefore, preferable to use these indices for dividing countries into groups of a comparable level, as done in this article. It should also be noted that the PLI in this article have been calculated using 2001 price data, however, estimated expenditure data had to be applied, as expenditure data 2001 become only available in autumn this year. The PLI may therefore change slightly when the preliminary PPP data 2001 are published in December 2002, based on 2001 expenditure data, rather than on estimates.

## Food, Beverages and Tobacco: Price level indices for 2001 – a comparison between EU, EFTA and EU Candidate Countries

Price level indices resulting from the 2001 survey on Food, Beverages and Tobacco and presented in **Chart 1**, highlighting the following country groups:

- **Group I** ( $\geq 130\%$  of the EU average): Denmark, Switzerland, Iceland and Norway;
- **Group II** ( $\geq 110\%$  and  $< 130\%$  of the EU average): Sweden, Finland, United Kingdom and Ireland;
- **Group III** ( $\geq 90\%$  and  $< 110\%$  of the EU average, i.e. close to the EU average): the Netherlands, Cyprus, Belgium, Italy, Germany, Luxembourg, Austria and France;
- **Group IV** ( $\geq 70\%$  and  $< 90\%$  of the EU average): Spain, Slovenia, Portugal, Greece and Malta;
- **Group V** ( $< 70\%$  of the EU average): Bulgaria, Slovakia, Romania, Czech Republic, Turkey, Hungary, Lithuania, Poland, Latvia and Estonia.

Chart 1 shows that half of the EU Member States are concentrated around the EU average. However, disparities in the price level index between the EU countries are remarkable and lie between 78 (Spain) and

131 (Denmark) at total survey level. This means that a comparable basket of food, beverages and tobacco in the most expensive EU country, Denmark, costs nearly 70% more than in the least expensive country, Spain. Moreover, the distribution generally tends to reflect a geographical element with Southern EU countries (Spain, Greece and Portugal) below the EU average and Northern countries (Sweden, Finland, United Kingdom, Ireland and Denmark) all above this average.

As regards the three EFTA countries, they appear to be the most expensive in the survey group: Iceland (154) and Norway (172) in particular are significantly higher than Denmark (131), while Switzerland with 136 is closer to the Danish index.

Finally, all Candidate Countries have PLIs below the EU average. Nevertheless two sub-groups can be distinguished: the first containing Slovenia (78), Malta (88) and Cyprus (95) with PLI somewhat close to those of the least expensive EU Member States. The second sub-group is constituted by the remaining 10 Candidate Countries, which are below all other participating countries, and show price level indices from 50 (Bulgaria) to 68 (Estonia).

### 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 in the framework of the "European comparison programme" (ECP), in which Eurostat annually establishes PPPs for the 15 EU Member States, the 13 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. Capital goods prices, 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. 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.

<sup>3</sup> see methodological notes

Table 1: 2001 Comparative price level indices for the main sub-groups of the survey, EU15=100

	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK	IS	NO	CH	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI	TR
Overall survey	98	131	97	83	78	105	124	98	97	94	100	83	122	118	122	184	172	138	50	95	54	68	57	66	59	88	64	52	51	78	54
Food	100	128	101	83	82	110	111	100	110	96	104	83	112	113	103	148	154	151	54	92	53	68	59	65	58	80	58	53	51	85	55
Bread and cereals	98	136	106	87	101	105	102	99	104	90	107	87	132	122	86	166	171	140	44	92	41	55	45	57	47	66	57	44	38	89	51
Meat	97	124	117	72	69	116	99	96	113	112	111	73	108	107	98	153	165	189	44	63	49	58	58	59	54	71	48	47	46	83	43
Fish	123	130	101	93	90	112	104	99	107	96	109	89	99	97	107	103	143	159	56	109	63	76	69	67	88	85	77	69	69	89	68
Milk, cheese and eggs	105	110	82	102	86	108	118	117	104	98	93	92	101	104	112	141	143	133	84	108	59	67	72	67	60	98	58	70	61	76	86
Oil and fats	109	131	91	92	81	123	107	98	120	98	116	96	116	125	110	150	181	167	75	93	70	83	69	83	71	91	87	68	70	103	89
Fruit	104	125	109	66	85	108	120	101	130	89	100	75	106	103	113	138	130	128	50	107	62	77	52	88	69	75	60	45	58	78	39
Vegetables	89	144	101	67	81	113	141	100	113	97	98	68	119	123	111	170	152	157	48	102	52	76	51	63	64	80	54	41	47	91	37
Sugar, jam, honey, chocolate & confectionery	101	141	88	112	106	105	111	95	95	79	96	124	109	127	114	162	170	129	61	128	65	79	72	86	73	97	76	70	64	90	83
Food products n.e.c.	96	137	101	129	71	102	130	87	107	89	122	99	137	142	117	132	150	146	61	113	59	80	73	66	96	102	74	68	88	98	51
Non-alcoholic beverages	94	142	105	97	68	91	120	88	90	96	89	101	119	116	125	155	164	113	66	119	63	86	66	86	72	120	77	77	66	84	76
Coffee, tea and cocoa	90	110	111	98	73	101	116	97	96	87	103	98	111	92	109	136	118	106	75	113	80	88	85	91	76	93	81	101	90	98	77
Mineral waters, soft drinks, fruit and vegetable juices	96	162	102	97	65	86	122	86	86	102	83	102	123	132	133	162	188	116	62	121	56	86	58	81	68	131	76	69	55	76	77
Alcoholic beverages	96	144	82	95	65	88	159	87	88	95	89	101	195	164	164	235	272	120	41	142	63	97	63	108	89	140	119	54	57	72	94
Tobacco	86	133	90	71	62	104	155	82	68	81	93	63	120	119	203	139	221	92	27	72	45	38	41	34	30	81	47	30	41	48	29

**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 Fish is 1% above the EU average in Germany and 30% above the EU average in Denmark. Fish is, therefore, in Denmark about 29% more expensive than in Germany (130/101=1.287).

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 meat the Belgian price level is 3% below the EU average and for fruit 4% above the EU average. In relation to the respective EU averages, therefore, meat is relatively cheaper in Belgium than fruit. 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.

## 2001 Comparative Price level indices and price dispersion for the main sub-groups of the survey

**Table 1** on 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 8 % less expensive than France when it comes to food, beverages and tobacco in total. Looking at individual product groups, the picture is different. Luxembourgers would, according to table 1, financially gain in buying bread and cereals, meat, fruit and vegetables in Belgium and fish, milk, cheese and eggs and oils and fats in Germany. For non-alcoholic beverages Luxembourg (90) is at about the same price level as France (91) and cheaper than the two other countries. For alcoholic beverages, Germany (82) is the least expensive country of the four, the three other being at about the same level (88-90). A remarkable price level difference again exist for tobacco, Luxembourg (68) being the cheapest of the four by some way. In France (104) tobacco products are more than 50% more expensive than in Luxembourg, in Germany (90) 32% and in Belgium (86) 26%, respectively.

**Table 2** on this page is based on table 1 and provides a measure of price dispersion within the Eurozone, the EU, the Candidate Countries group 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.

What attracts particular attention in table 2 is the fact that the price level dispersion is biggest for alcoholic beverages and tobacco, in all country groups. However, this 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 show PLIs for alcoholic beverages that are significantly higher

**Table 2: Price dispersion for EUR12, EU15, CC13 and all 31 survey participants by product groups**

	(Max-Min)/Min*100			
	EUR12	EU15	CC13	All 31
<b>Overall survey</b>	59	69	90	242
<b>Food</b>	36	55	79	200
Bread and cereals	52	58	143	350
Meat	70	80	92	337
Fish	38	45	74	153
Milk, cheese and eggs	45	45	88	149
Oils and fats	53	62	52	145
Fruit	95	95	174	253
Vegetables	122	127	173	355
Sugar, jam, honey, chocolate & confectionery	57	78	112	181
Food products n.e.c.	94	101	100	166
<b>Non-alcoholic beverages</b>	77	109	90	159
Coffee, tea and cocoa	59	59	51	87
Mineral waters, soft drinks, fruit and vegetable juices	89	150	140	244
<b>Alcoholic beverages</b>	201	201	244	555
<b>Tobacco</b>	150	227	197	709

than those of all other countries (see table 1). In Finland and Norway alcoholic beverages are about 2 times and 2.7 times respectively more expensive than the average of the EU, while they are sold in Spain at a price level being only about two thirds of the EU average.

For tobacco products consumers have to pay in UK and Norway prices about 2 and 2.2 times respectively above the level of the EU average. In Portugal and Spain, on the other hand those products are available at nearly 40% below the average EU price level (see table1).

Relatively high price dispersion in all country groups can also be observed for vegetables, while price level differences are lowest, at least for EUR12 and EU15, for fish and milk, cheese and eggs.

Price dispersion is naturally biggest 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: 2001 results for food and non-alcoholic beverages**  
Cross table of Comparative Price level indices, EU15=100

	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK	EU-15	IS	NO	CH	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI	TR	
BE	100	77	97	119	122	91	88	100	91	103	97	118	88	88	94	99	67	64	67	182	105	183	143	166	148	167	119	166	181	188	116	177	BE
DK	131	100	127	155	159	119	115	131	119	135	127	154	115	114	123	129	87	83	88	238	137	239	186	217	194	218	155	216	236	246	152	231	DK
DE	102	79	100	122	125	94	91	103	94	106	106	121	90	90	96	102	68	66	69	187	108	186	146	171	152	172	122	170	185	193	119	182	DE
EL	84	65	82	100	103	77	74	84	77	87	82	99	74	74	79	83	56	54	57	153	89	154	120	140	125	141	100	140	152	159	98	149	EL
ES	82	63	80	98	100	75	73	82	75	85	80	97	72	72	77	81	55	53	55	150	86	150	117	137	122	137	98	136	148	155	96	146	ES
FR	113	84	107	130	134	100	97	110	100	113	107	129	96	96	103	109	73	70	74	200	115	201	157	182	163	184	131	182	198	207	128	194	FR
IE	113	87	110	134	138	103	100	113	103	117	110	133	99	99	106	112	75	72	76	206	119	207	161	188	168	189	135	188	204	213	132	201	IE
IT	100	77	97	119	122	91	88	100	91	103	97	118	88	88	94	99	67	64	67	182	105	183	143	166	148	167	119	166	180	188	116	177	IT
LU	109	84	107	130	133	100	97	109	100	113	106	129	96	96	103	108	73	70	73	199	115	200	156	182	162	183	130	181	198	206	127	194	LU
NL	97	74	94	115	118	88	85	97	88	100	94	114	85	85	91	96	65	62	65	176	102	177	138	161	143	162	115	160	175	182	112	171	NL
AT	103	79	100	122	125	94	91	103	94	106	100	121	90	90	97	102	69	66	69	188	108	186	147	171	153	172	123	171	186	194	120	183	AT
PT	85	65	83	101	103	77	75	85	77	88	82	100	74	74	80	84	57	54	57	154	89	155	121	141	126	142	101	141	153	160	99	150	PT
FI	114	87	111	135	139	104	101	114	104	118	111	134	100	100	107	113	76	73	76	208	120	209	163	189	169	191	136	189	206	215	133	202	FI
SE	114	87	111	135	139	104	101	114	104	118	111	134	100	100	107	113	76	73	77	208	120	209	163	190	169	191	136	189	206	215	133	202	SE
UK	106	82	104	126	130	97	94	106	97	110	103	126	93	93	100	105	71	68	71	194	112	195	152	177	158	178	127	176	192	201	124	189	UK
EU-15	101	77	98	120	123	92	89	101	92	104	98	119	89	89	95	100	67	65	68	184	106	185	144	168	150	169	120	167	182	190	117	179	EU-15
IS	150	115	146	178	183	137	133	150	137	155	146	177	132	132	141	149	100	96	101	273	158	275	214	249	222	251	178	249	271	282	174	266	IS
NO	156	120	152	186	190	143	138	156	143	162	152	184	137	137	147	155	104	100	105	285	164	286	223	260	232	262	186	259	282	295	182	277	NO
CH	149	114	145	177	181	136	132	149	136	154	145	176	131	131	140	148	99	95	100	271	157	273	213	248	221	249	177	247	269	281	173	264	CH
BG	55	42	53	65	67	50	49	55	50	57	53	65	48	48	52	54	37	35	37	100	58	101	78	91	81	92	65	91	99	103	64	97	BG
CY	95	73	93	113	116	87	84	95	87	98	92	112	83	83	89	94	63	61	64	173	100	174	136	158	141	159	113	158	172	179	111	169	CY
CZ	55	42	53	65	66	50	48	55	50	56	53	64	48	48	51	54	36	35	37	99	57	100	78	91	81	91	65	91	99	103	64	97	CZ
EE	70	54	68	83	85	64	62	70	64	72	68	83	61	61	66	69	47	45	47	128	74	128	100	117	104	117	83	116	127	132	81	124	EE
HU	60	46	59	71	73	55	53	60	55	62	58	71	53	53	56	60	40	38	40	110	63	110	86	100	89	101	72	100	109	113	70	107	HU
LV	67	52	66	80	82	61	60	67	62	70	65	80	59	59	63	67	45	43	45	123	71	123	96	112	100	113	80	112	122	127	78	120	LV
LT	60	46	58	71	73	54	53	60	55	62	58	70	52	52	56	59	40	38	40	109	63	109	85	99	89	100	71	99	108	113	70	106	LT
MT	84	64	82	100	102	77	74	84	77	87	82	99	74	74	79	83	56	54	56	153	88	154	120	140	125	141	100	139	152	158	98	149	MT
PL	60	46	59	72	73	55	53	60	55	62	59	71	53	53	57	60	40	39	40	110	63	110	86	100	89	101	72	100	109	114	70	107	PL
RO	55	42	54	66	67	50	49	55	51	57	54	65	49	49	52	55	37	35	37	101	58	101	79	92	82	93	66	92	100	104	64	98	RO
SK	53	41	52	63	65	48	47	53	49	55	52	63	47	47	50	53	35	34	36	97	56	97	76	88	79	89	63	88	96	100	62	94	SK
SI	86	66	84	102	105	78	76	86	79	89	84	101	75	75	81	85	57	55	58	157	90	157	123	143	128	144	102	143	155	162	100	152	SI
TR	56	43	55	67	69	51	50	56	52	58	55	67	50	49	53	56	38	36	38	103	59	103	81	94	84	94	67	94	102	106	66	100	TR

**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 Greece, will cost 135 euro in Sweden. In other words, Sweden is about 35% more expensive than Greece as regards *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 happen in cases of direct connections via bridges or regular ferry boat traffic.



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

For the purposes of the collection of consumer prices, the 31 countries currently participating in the group co-ordinated 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 Italy, France, Spain, Portugal, Greece, Cyprus, Bulgaria, Malta, Romania and Turkey.

Finland, Austria and Italy act 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. Another reason for the group structure was to integrate the PPP price surveys for Member States and candidate countries. 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 EU Member States and Candidate Countries, as the consumption pattern in many Candidate Countries are still substantially different.

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.

Table 3 on page 5 provides an interesting cross comparison of Price level indices for all ECP participants for Food and non-alcoholic beverages combined. Again, it is interesting to look at countries that have *land borders* with each other.

Taking Germany as an example, as this country is the one with most land borders to other countries participating in the comparison, considerable average price level differences between neighbours in Europe become evident. The comparable and representative basket of food and non-alcoholic beverages, which costs 100 euro in Germany, would cost about the same in Austria and slightly less in Belgium (97) and the Netherlands (94). In France and Luxembourg, this basket would cost 7 euro more and in Denmark even 27 euro more than in Germany. Shopping for food and non-alcoholic beverages in Switzerland is very expensive for Germans, as the basket would cost 45 euro more than at home. At the Eastern borderlines, on the other hand, the same basket would be available for 53 euro in Czech Republic and for 59 euro in Poland.

Big price level differences when it comes to food and non-alcoholic beverages, however, also exist within the Candidate Countries group. Taking Hungary as an example, the basket that costs 100 euro in Hungary would be available for 88 euro in Slovakia and for 92 euro in Romania. In Slovenia, however, it would be expensive for Hungarians, as the basket would cost 43 euro more than in Hungary.

Slovenia generally is an interesting case within the Candidate Countries group. The price level for food and non-alcoholic beverages in this country is considerably higher than in all other Candidate Countries with the exception of Malta and Cyprus. With regard to Malta, Slovenia is about at the same price level, while the same basket items would cost 11 euro more in Cyprus than in Slovenia.

Slovenia, Malta and Cyprus, are also the only Candidate Countries that have higher price levels for food and non-alcoholic beverages than some of the Member States. In the case of the Cypriot – Greek comparison, the difference is even considerable, Cyprus being 13% more expensive than Greece.



## ➤ ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

### PPPs, PPS and the Euro

The differences in values of GDP expenditure between countries, even when revalued in a common currency using exchange rates, correspond not only 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. Therefore, the use of exchange rates as conversion factors in cross-country comparisons is not advisable.

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), that equalises the purchasing power of different national currencies.

In their simplest form, PPPs are a set of price relatives, which show the ratio of the prices in national currency of the same good or service in different countries (e.g. a loaf of bread costs 1.87 euro in France, 1.68 euro in Germany, 95 pence in the UK, etc). For the price collections, a basket of comparable goods and services is used which are selected to represent the whole range of goods and services, and to be representative of consumption patterns in the various countries. The simple price relatives at product level are subsequently aggregated (weighted together) to PPPs for groups of products, for total consumption and finally for GDP.

To fix a numeraire for the numerical procedure of the PPP calculation, usually one country is used as a base country and set to equal 1. For the EU the selection of a single country (currency) as a base seemed inappropriate. Therefore, PPS is the artificial common reference currency unit used in the European Union to express the volume of economic aggregates for the purpose of spatial comparisons in real terms. Volume aggregates in PPS are obtained by dividing their original value in national currency units by the respective PPPs. One PPS, therefore, buys the same given average volume of goods and services in all countries, whereas different amounts of national currency units are needed to buy this volume of goods and services, depending on the national price level.

With the launch of the euro in the euro-zone Member States, for the first time prices can be compared directly between these countries. However, the euro has different purchasing power in the individual euro-zone countries, depending on the national price levels. Therefore, for the establishment of pure volume aggregates in PPS it is still necessary to calculate PPPs. With other words, for the non-euro-zone countries PPPs are currency converters and eliminate the effects of different price levels, while for the euro-zone countries they fulfil only the latter price deflator function.

### Publication calendar 2002

During the calendar year 2002 the following further PPP related publications have been published or are planned:

July 2002:	Purchasing Power parities and related economic indicators for EU, EFTA and Candidate Countries, preliminary results for 2000
December 2002:	Comparative price levels for “Services”, for the year 2001
December 2002:	Final PPP results 2000 and preliminary results 2001

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