Significant differences in consumer prices across Europe

Comparative price levels in 37 European countries for 2010

Price levels for consumer goods and services in 2010 differed widely across Europe: in Denmark consumer prices were 43% higher than the average of the 27 EU Member States, while in the former Yugoslav Republic of Macedonia prices were 56% lower than this average. Among the EU Member States, the cheapest country was Bulgaria (49% below the average).

These are the main results of price surveys covering around 2500 consumer goods and services across 37 European countries. Those surveys are part of the Eurostat-OECD Purchasing Power Parities (PPP) programme (see methodological notes).
The 37 countries that participate in this programme are the 27 Member States, three EFTA countries (Iceland, Norway and Switzerland), four Candidate Countries (Montenegro, Croatia, the former Yugoslav Republic of Macedonia and Turkey) and three Western Balkan countries (Albania, Bosnia and Herzegovina and Serbia).

The results of the surveys are expressed in "price level indices" (PLIs), which provide a comparison of 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 conversely, if the price level index is lower than 100, then the country is relatively cheap compared with the EU average.

Figure 1 shows the 2010 PLIs for total household final consumption expenditure (HFCE) on goods and services. Switzerland and Northern European countries tend to have the highest prices while south-eastern European countries have the lowest prices.

On the following pages, PLIs are shown for a (non-exhaustive) selection of consumer goods and services.

Figure 1: Price level index for household final consumption expenditure (HFCE), 2010, EU27=100
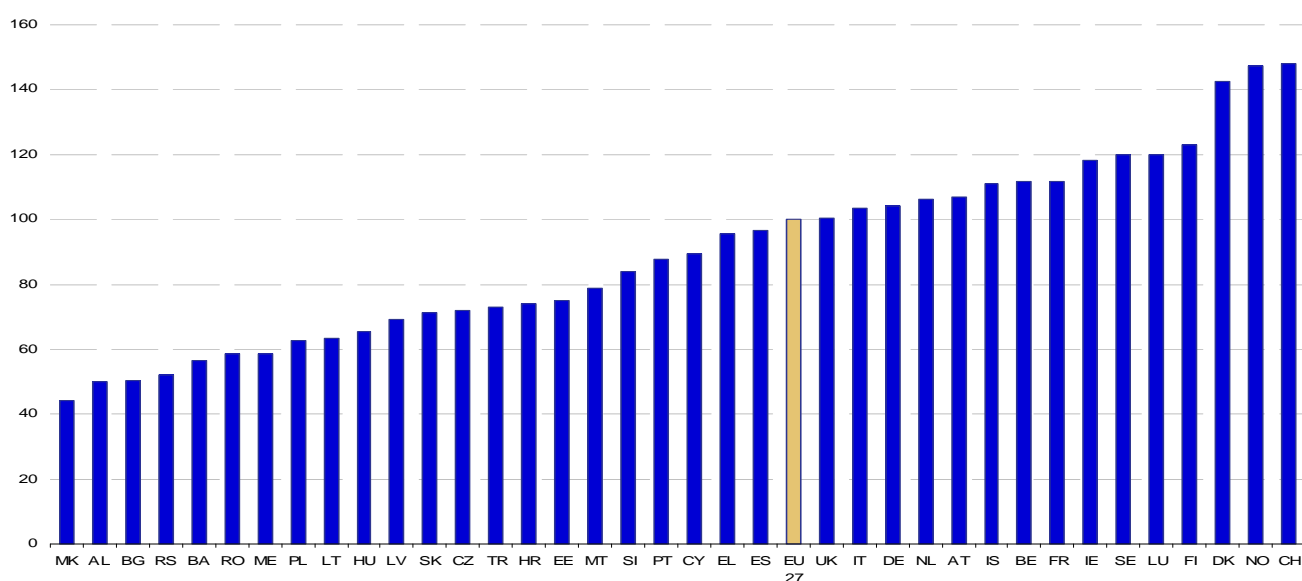
For the country codes, please refer to the methodological notes

Table 1: Price level index for 4 groups of goods and services, 2010, EU27=100

	HFCE	Food and non-alcoholic beverages	Alcoholic beverages and tobacco	Clothing	Footwear
CH	148	149	112	126	118
NO	147	165	237	138	141
DK	**143**	**136**	125	125	113
FI	123	113	136	122	**120**
LU	120	116	88	105	108
SE	120	116	140	**126**	115
IE	118	120	**170**	95	80
FR	112	109	108	107	96
BE	112	115	100	115	111
IS	111	113	155	135	136
AT	107	115	92	103	101
NL	106	96	102	102	107
DE	104	110	98	104	102
IT	104	106	104	101	113
UK	100	102	142	89	85
EU27	100	100	100	100	100
ES	97	94	80	90	101
EL	96	98	90	107	107
CY	89	106	95	94	90
PT	88	91	83	100	86
SI	84	95	80	98	87
MT	79	93	91	88	91
EE	75	81	80	100	109
HR	74	92	82	104	96
TR	73	90	106	73	72
CZ	72	78	82	98	97
SK	71	81	82	102	91
LV	69	83	83	100	99
HU	65	81	68	85	90
LT	63	72	78	98	103
PL	63	70	74	96	85
ME	59	77	50	105	111
RO	59	67	**64**	94	94
BA	57	75	58	100	93
RS	52	65	49	98	96
BG	**51**	**66**	**64**	**75**	**73**
AL	50	70	51	77	76
MK	44	51	41	76	75
Variation coefficients:					
EA16	15.4	10.6	26.6	12.0	13.9
EU15	12.6	12.4	23.4	10.9	12.5
EU27	25.3	18.3	27.8	11.5	13.2
All 37	31.6	24.9	38.9	14.9	15.8

Source: Eurostat (online data code : prc_ppp_ind)

Table 1 shows the PLIs for four important groups of consumer goods and services: food and non-alcoholic beverages; alcoholic beverages and tobacco; clothing and footwear (see Box 2 for a description of the content of each product group). These groups represent on average 20%, 5%, 4% and 1% of household expenditure, respectively. For reference, the PLIs of total HFCE (those of figure 1) are also shown.

The shaded fields indicate the highest and lowest PLIs per product group among all 37 participating countries. The highest and lowest PLIs among the 27 EU Member States are marked in bold.

At the bottom of the table, variation coefficients are provided for the euro area (EA16), EU15 Member States, the European Union (EU27) and the group of all countries participating in the programme (All 37). The variation coefficient is defined as the standard deviation of the PLIs of the respective group of countries as percentage of their average PLI. The higher the variation coefficient, the higher is the price dispersion in the respective product group.

Norway is consistently the most expensive country of all 37, for all four product groups. Amongst the Member States, Denmark is the most expensive for food and non-alcoholic beverages and Ireland has the highest PLI for alcoholic beverages and tobacco. Sweden reports the highest prices among the Member States for clothing and Finland for footwear.

The former Yugoslav Republic of Macedonia is the least expensive country of all 37 for food, beverages and tobacco as well for the alcoholic beverages, while Turkey is the cheapest of the participating countries for clothing and footwear. Within the EU Member States Bulgaria is the least expensive country for all four product categories.

Of these four product groups, the highest price dispersion is found for alcoholic beverages and tobacco. This is mainly due to large differences in taxation on these products across the 37 countries. Much less dispersion is apparent in the prices of clothing and footwear.

Price dispersion is naturally greatest within the 37-country group, including both the high price EFTA countries and the (mostly) low price Candidate Countries and Western Balkan Countries.

Table 2: Price level index for 4 groups of goods and services, 2010, EU27=100

	HFCE	Electricity, gas and other fuels	Furniture and furnishings, carpets and other floor coverings	Household appliances	Consumer electronics
CH	148	116	104	112	103
NO	147	151	113	129	117
DK	143	**175**	103	119	113
FI	123	105	111	108	106
LU	120	104	111	96	96
SE	120	123	97	125	**115**
IE	118	111	99	95	94
FR	112	98	104	108	103
BE	112	109	105	103	103
IS	111	60	112	153	153
AT	107	110	104	96	102
NL	106	115	98	91	98
DE	104	119	96	93	96
IT	104	94	108	107	106
UK	100	87	105	102	98
EU27	100	100	100	100	100
ES	97	95	107	109	100
EL	96	78	108	97	100
CY	89	97	98	115	106
PT	88	113	100	93	99
SI	84	97	96	103	102
MT	79	86	**118**	**126**	110
EE	75	79	83	93	101
HR	74	75	74	96	104
TR	73	89	75	100	110
CZ	72	106	80	99	97
SK	71	100	87	92	97
LV	69	71	70	87	96
HU	65	86	75	83	99
LT	63	80	71	91	97
PL	63	83	72	83	91
ME	59	58	60	83	92
RO	59	**56**	**61**	**80**	96
BA	57	66	54	90	100
RS	52	47	56	86	94
BG	**51**	61	62	87	**89**
AL	50	55	58	99	101
MK	44	52	73	79	92
Variation coefficients:					
EA16	15.4	15.2	9.2	15.6	12.5
EU15	12.6	14.8	4.6	14.1	12.9
EU27	25.3	19.4	17.8	14.4	10.6
All 37	31.6	29.1	21.3	15.4	10.3

Source: Eurostat (online data code: prc_ppp_ind)

Table 2 shows the PLIs for another four groups of goods and services: energy (electricity, gas and other fuels); furniture; household appliances and consumer electronics (see Box 2 for a description of the content of these groups). These groups represent on average 5%, 2%, 1% and 1% of household final consumption expenditure, respectively.

Price dispersion varies significantly between these four product groups, being most pronounced for electricity, gas and other fuels. Here, Denmark is by far the most expensive of all 37 participating countries, while Serbia is the least expensive, with Romania being the cheapest EU Member State.

Price dispersion is much lower for the other three categories shown in this table. The lowest price dispersion in general is found for consumer electronics.

Malta shows the highest price levels of all 37 countries for furniture and furnishings and household appliances. This may be due to the geographical position of Malta (leading to higher transportation costs) and the small size of Malta's internal market.

Romania shows the lowest price levels of the EU Member States for all product groups except for consumer electronics. Bulgaria is the least expensive country of all 37 for consumer electronics.

Among all 37 countries, Bosnia and Herzegovina has the lowest prices for furniture, while the former Yugoslav Republic of Macedonia is the cheapest for household appliances.

Table 3: Price level index for 4 groups of goods and services, 2010, EU27=100

	HFCE	Personal transport equipment	Transport services	Communication	Restaurants and hotels
CH	148	106	134	103	141
NO	147	158	158	83	178
DK	143	167	129	84	153
FI	123	114	131	82	129
LU	120	97	91	87	107
SE	120	98	129	65	138
IE	118	116	121	104	129
FR	112	102	106	120	104
BE	112	101	109	112	112
IS	111	118	118	80	114
AT	107	106	100	96	104
NL	106	113	103	90	105
DE	104	101	110	91	103
IT	104	100	80	108	107
UK	100	91	129	101	103
EU27	100	100	100	100	100
ES	97	98	92	128	95
EL	96	96	88	115	96
CY	89	98	94	49	106
PT	88	120	79	102	81
SI	84	94	88	84	87
MT	79	114	142	86	77
EE	75	88	75	89	71
HR	74	97	90	87	91
TR	73	115	81	104	79
CZ	72	90	63	107	59
SK	71	89	59	124	71
LV	69	91	60	82	77
HU	65	95	80	99	54
LT	63	92	64	63	65
PL	63	90	70	83	77
ME	59	85	65	64	62
RO	59	88	49	76	50
BA	57	86	75	88	59
RS	52	85	53	39	54
BG	51	88	45	73	45
AL	50	98	50	72	42
MK	44	90	40	74	42
Variation coefficients:					
EA16	15.4	8.3	18.0	18.6	18.4
EU15	12.6	7.2	15.7	13.3	13.5
EU27	25.3	9.3	25.5	19.9	25.0
All 37	31.6	17.0	32.6	21.7	35.2

Source: Eurostat (online data code : prc_ppp_ind)

Table 3 shows the PLIs for another four groups of goods and services: personal transport equipment; transport services; communication (services and equipment); and restaurants and hotels. These groups represent on average 3%, 3%, 3% and 8% of household final consumption expenditure, respectively.

Price dispersion for personal transport equipment is not very significant and Denmark and Norway stand out with very high PLI for this category. This is due to high taxation levels on cars in these countries. The lowest prices are found in Montenegro and Serbia, but these are only 15% below the EU average, demonstrating the relative closeness of prices for personal transport equipment among the other 36 countries.

Price dispersion is significantly higher among the two service categories (transport services and restaurants and hotels). Prices for services generally tend to show larger differences across countries than prices for goods, due to the higher share of labour input into services and the high dispersion of wages across countries.

Concerning transport services, Norway and Malta show the highest PLIs among all countries and among EU Member States respectively. The lowest PLI levels are observed in Bulgaria among the Member States and the former Yugoslav Republic of Macedonia among all countries.

The highest and lowest PLIs for communication can be observed in Spain and Serbia among all countries, where Cyprus is the cheapest EU Member State.

Finally, Norway and Denmark stand out with the most expensive restaurants and hotels, while the lowest prices for these services are observed in the former Yugoslav Republic of Macedonia, Albania and Bulgaria.

Price convergence

Figure 2 shows the development over time of the variation coefficient of the PLI for total household final consumption expenditure for four country groups. A decrease of the variation coefficient is an indication of price convergence. It can be seen that between 1995 and 2010 there was a clear decrease of the variation coefficient for the group of 27 Member States, however since 2008 there has been a slight increase in the indicator. The variation coefficient is fairly stable for the group of EU15 Member States. For the euro area, the variation coefficient decreased in the early years, then was relatively stable between 1999 and 2003, but has been decreasing since 2004. Data for the group of all 37 countries are only available from 2005 onwards, but give an indication of a slight price divergence since 2008. This can however be partly explained by the impact of fluctuations in exchange rates.

Figure 2: Price convergence - variation coefficient of price level indices of final household consumption expenditure
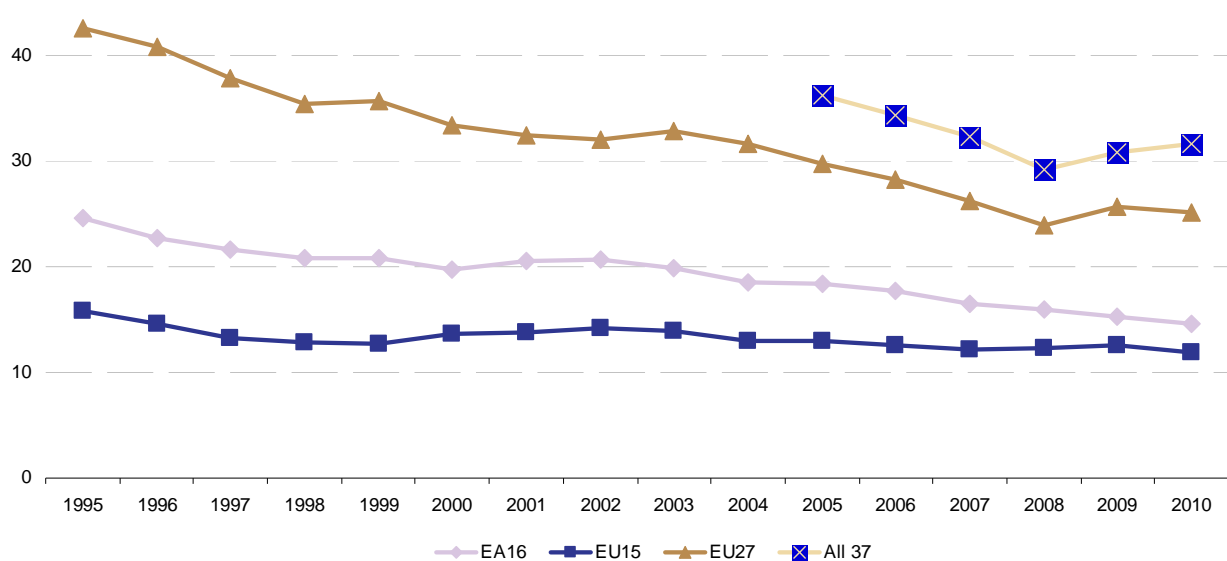
Source: Eurostat (online data code: prc_ppp_ind)

Box 2: The impact of exchange rates changes on PLIs

As explained in the methodological notes, the PLI for a given country is calculated as its purchasing power parity (PPP) divided by its annual average exchange rate to the euro. This implies that exchange rate movements have an impact on the PLIs. An appreciation of a country's currency against the euro will make the country more expensive in comparison to euro area countries and this will show as an increase of the relative price level expressed in the PLI.

In 2010, several countries experienced relatively large exchange rate movements. The most significant examples are Sweden, Switzerland and Norway (appreciation of 11%, 9% and 9% respectively between 2009 and 2010). This explains in part some changes in the position of countries in PLIs compared with previously published data for 2009.

Box 3: Description of the product groups

The product groups presented in the article include the following types of products:

Food and non-alcoholic beverages: bread and cereals, meat, fish, milk, cheese, eggs, oils and fats, fruits, vegetables, potatoes, other food, non-alcoholic beverages

Alcoholic beverages and tobacco: spirits, wine, beer, tobacco and narcotics

Clothing: clothing materials, men's, women's, children's and infant's clothing, other articles of clothing and clothing accessories. Excludes cleaning, repair and hire of clothing.

Footwear: men's, women's, children's and infant's footwear. Excludes repair and hire of footwear.

Electricity, gas and other fuels: electricity, gas, liquid fuels, solid fuels and heat energy (all for domestic use)

Furniture and furnishing, carpets and other floor coverings: kitchen furniture, bedroom furniture, living-room and dining-room furniture, other furniture and furnishings, carpets and other floor coverings. Excludes repair of furniture, furnishings and floor coverings.

Household appliances: for example: refrigerators and freezers, washing machines, dishwashers, cookers, microwave ovens, vacuum cleaners, coffee makes, kettles, toasters, etc. Excludes repair of household appliances.

Consumer electronics: for example: televisions, DVD players, receivers, audio systems, MP3 players, cameras, camcorders, desktop and laptop computers, monitors, printers, scanners, software, music CDs, movie DVDs, empty CDs and DVDs. Excludes repair of such equipment.

Personal transport equipment: motor cars, motor cycles and bicycles. Excludes maintenance and repair of personal transport equipment, spare parts and fuels.

Transport services: passenger transport by railway, by road, by air, by sea and inland waterway, and other purchased transport services (e.g. left luggage services, removal services)

Communication: postal services, telephone and telefax equipment, telephone and telefax services

METHODOLOGICAL NOTES

The data in this publication are produced by the Eurostat-OECD Purchasing Power Parity (PPP) programme. The full methodology used in the programme is described in the Eurostat-OECD Methodological manual on purchasing power parities which is available free of charge from the Eurostat website.

In their simplest form PPPs are nothing more than price relatives that show the ratio of the prices in national currencies of the same good or service in different countries.

For example, if the price of a hamburger in France is 2.84 euros and in the United Kingdom it is 2.20 pounds sterling, the PPP for hamburgers between France and the United Kingdom is 2.84 euros to 2.20 pounds or 1.29 euros to the pound. In other words, for every pound spent on hamburgers in the United Kingdom, 1.29 euros would have to be spent in France in order to obtain the same quantity and quality – or volume – of hamburgers.

Comparative price levels as presented in this publication are the ratios of PPPs to exchange rates. They provide a measure of the differences in price levels between countries by indicating for a given product group the number of units of common currency needed to buy the same volume of the product group or aggregate in each country.

Price level indices (PLIs) 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. The EU average is calculated as the weighted average of the national PLIs, weighted with the expenditures corrected for price level differences. Price level indices are not intended to rank countries strictly. In fact, they only provide an indication of the 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.

The main use of PPPs is to convert expenditures (including GDP) of different countries into real expenditures (and real GDP). Real expenditures are valued at a uniform price level and so reflect only differences in the volumes purchased in countries. PPP and real expenditures provide the price and volume measures required for international comparisons.

EU member states

BE	Belgium	LU	Luxembourg
BG	Bulgaria	HU	Hungary
CZ	Czech Republic	MT	Malta
DK	Denmark	NL	Netherlands
DE	Germany	AT	Austria
EE	Estonia	PL	Poland
IE	Ireland	PT	Portugal
EL	Greece	RO	Romania
ES	Spain	SI	Slovenia
FR	France	SK	Slovakia
IT	Italy	FI	Finland
CY	Cyprus	SE	Sweden
LV	Latvia	UK	United Kingdom
LT	Lithuania		

EFTA countries

CH	Switzerland
IS	Iceland
NO	Norway

Candidate countries

ME	Montenegro
HR	Croatia
MK*	former Yugoslav Republic of Macedonia
TR	Turkey

Western Balkan countries

AL	Albania
BA	Bosnia and Herzegovina
RS	Serbia

MK: Provisional code which does not prejudge in any way the definitive nomenclature for this country which will be agreed following the conclusion of negotiations currently taking place on this subject at the UN

Further information

Eurostat Website: http://ec.europa.eu/eurostat

Data on "Purchasing power parities":
http://epp.eurostat.ec.europa.eu/portal/page/portal/purchasing_power_parities/data/database

Further information about "Purchasing power parities":
http://epp.eurostat.ec.europa.eu/portal/page/portal/purchasing_power_parities/introduction

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