

Wide spread in consumer prices across Europe in 2008

Price levels for consumer goods and services in 2008 differed widely across Europe: in Denmark consumer prices are 41% higher than the average of the 27 EU Member States, while in

the former Yugoslav Republic of Macedonia prices are 53% lower than this average. Among the EU Member States, the cheapest country is 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, the three Candidate Countries (Croatia, the former Yugoslav Republic of Macedonia and Turkey), three EFTA countries (Iceland, Norway and Switzerland) and four Western Balkan countries (Albania, Bosnia and Herzegovina, Montenegro and Serbia).

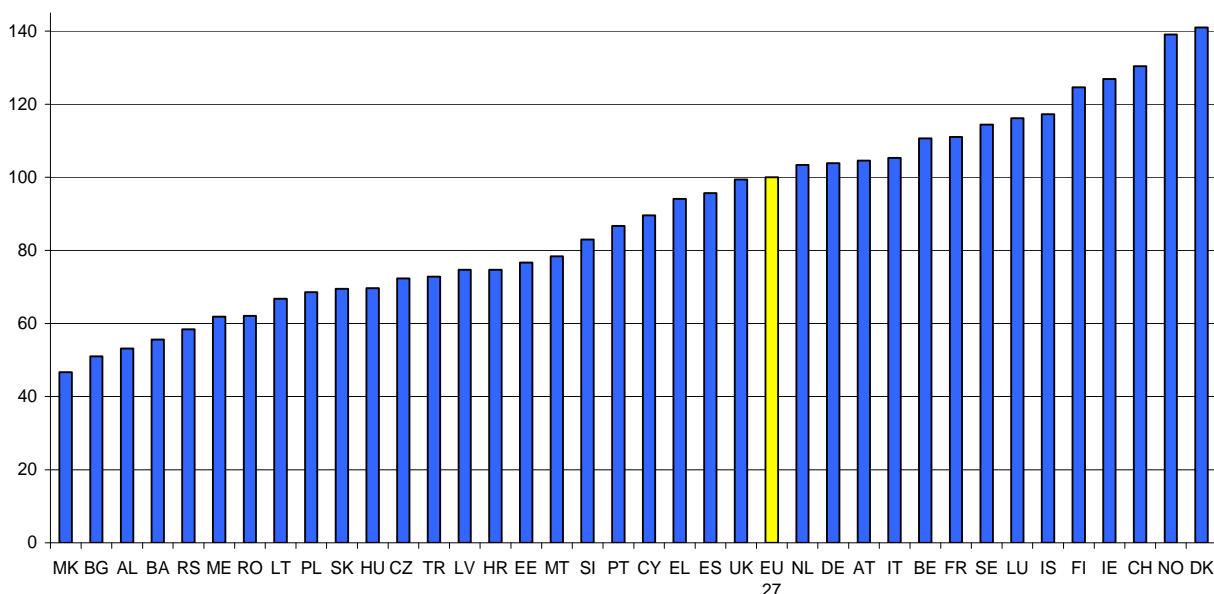
The results of the surveys are expressed in "price level indices" (PLIs), which provide a comparison of countries' price levels with respect to the European Union average: if the price level index

is higher than 100, the country concerned is relatively expensive compared to the EU average and vice versa, if the price level index is lower than 100, then the country is relatively cheap compared to the EU average.

Graph 1 shows the 2008 PLIs for total household final consumption expenditure (HFCE) on goods and services. Northern European countries tend to have the highest prices while the south-eastern European countries have the lowest prices. Southern and central European countries tend to show price levels closer to the EU average.

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

Graph 1: Price level index for household final consumption expenditure (HFCE), 2008, EU27=100



For the country codes, please refer to the methodological notes

Food, beverages, tobacco, clothing and footwear

Table 1: Price level index for 4 groups of goods and services, 2008, EU27=100

	HFCE	Food and non-alcoholic beverages	Alcoholic beverages and tobacco	Clothing	Footwear
DK	141	147	120	110	118
NO	139	154	217	125	137
CH	130	135	95	124	115
IE	127	127	184	91	95
FI	125	125	137	123	121
IS	117	120	139	117	118
LU	116	117	89	112	119
SE	114	117	136	119	118
FR	111	104	108	95	90
BE	111	113	101	113	110
IT	105	115	107	110	106
AT	105	112	92	108	109
DE	104	106	97	107	103
NL	103	88	99	101	111
EU27	100	100	100	100	100
UK	99	104	150	83	86
ES	96	94	75	99	106
EL	94	101	89	113	118
CY	90	106	98	101	96
PT	87	86	90	98	95
SI	83	95	74	112	102
MT	78	89	96	110	116
EE	77	87	74	108	119
LV	75	85	78	100	107
HR	75	94	87	118	122
TR	73	87	91	76	89
CZ	72	82	85	113	105
HU	70	83	71	95	96
SK	70	81	73	112	92
PL	69	75	74	104	91
LT	67	76	63	88	94
RO	62	71	61	86	93
ME	62	77	41	113	111
RS	58	82	54	104	111
BA	56	75	45	94	88
AL	53	74	57	90	79
BG	51	67	63	84	80
MK	47	59	43	71	77
Variation coefficients:					
EA16	15.6	13.1	26.1	7.7	9.2
EU15	12.4	13.8	25.1	10.0	10.2
EU27	23.8	19.3	29.8	10.2	11.0
All 37	28.9	22.7	39.3	12.8	13.4

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 18%, 5%, 4% and 1% of household expenditure, respectively. For reference, the PLIs of total HFCE (those of graph 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), the 15 "old" EU Member States (EU15), 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, followed by the United Kingdom. Both for clothing and for footwear, Finland reports the highest prices among the Member States.

The former Yugoslav Republic of Macedonia is the least or second least expensive country of all 37 in all four product groups, while Bulgaria is the cheapest of the Member States in 2 out of these 4 groups, with Romania being cheaper for alcoholic beverages and tobacco, and the United Kingdom being cheapest for clothing.

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.

Energy, furniture, household appliances and consumer electronics

Table 2: Price level index for 4 groups of goods and services, 2008, EU27=100

	HFCE	Electricity, gas and other fuels	Furniture and furnishings, carpets and other floor coverings	Household appliances	Consumer electronics
DK	141	169	101	134	121
NO	139	129	108	122	121
CH	130	100	88	114	96
IE	127	114	112	96	111
FI	125	96	106	117	117
IS	117	60	109	140	117
LU	116	103	108	103	108
SE	114	112	96	119	102
FR	111	95	103	103	106
BE	111	114	101	105	106
IT	105	100	106	114	116
AT	105	109	101	103	104
DE	104	120	95	97	101
NL	103	121	98	93	102
EU27	100	100	100	100	100
UK	99	90	108	84	86
ES	96	91	105	104	103
EL	94	73	106	106	112
CY	90	95	105	115	120
PT	87	103	96	101	103
SI	83	85	91	106	107
MT	78	62	117	141	126
EE	77	67	83	94	96
LV	75	66	78	96	99
HR	75	68	75	107	103
TR	73	74	74	114	113
CZ	72	99	81	111	108
HU	70	83	81	87	102
SK	70	95	89	108	108
PL	69	83	80	108	103
LT	67	64	75	95	101
RO	62	56	66	89	101
ME	62	54	67	99	93
RS	58	48	64	92	101
BA	56	62	54	94	111
AL	53	55	67	88	122
BG	51	59	61	84	96
MK	47	46	71	79	103
Variation coefficients:					
EA16	15.6	15.7	7.0	10.1	6.4
EU15	12.4	19.3	4.7	11.1	7.7
EU27	23.8	25.7	15.0	12.8	8.0
All 37	28.9	30.4	18.8	13.9	8.3

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 4%, 2%, 1% and 2% of household final consumption expenditure, respectively.

Price dispersion varies significantly between these four product groups. It is highest for electricity, gas and other fuels. Here, Denmark is by far the most expensive of all 37 participating countries, while the former Yugoslav Republic of Macedonia is the least expensive, with Romania being the cheapest EU Member State. Also evident are the relatively low energy prices in Iceland.

Price dispersion is much lower for the other three categories shown in this table. The low spread of prices within the 15 "old" Member States for furniture (variation coefficient of 4.7) is particularly striking. The lowest price dispersion in general is found for consumer electronics.

Malta shows the highest price levels of all 37 countries for each of these 3 consumption groups while having relatively low energy prices. This may be due to the geographical position of Malta (leading to higher transportation costs) and the small size of Malta's internal market.

Bulgaria shows the lowest price levels of the EU Member States for furniture and household appliances. The United Kingdom shares this low price level for household appliances and is also the least expensive country of all 37 for consumer electronics. The low PLIs for the United Kingdom can be explained in part by a depreciation of the pound sterling (see box 3).

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

Personal transport equipment, transport services, communication, restaurants and hotels

Table 3: Price level index for 4 groups of goods and services, 2008, EU27=100

	HFCE	Personal transport equipment	Transport services	Communication	Restaurants and hotels
DK	141	174	136	86	151
NO	139	153	157	87	168
CH	130	93	120	94	125
IE	127	125	115	101	137
FI	125	118	132	86	135
IS	117	107	125	86	135
LU	116	96	93	86	106
SE	114	93	132	66	126
FR	111	99	109	117	116
BE	111	100	106	113	111
IT	105	101	82	106	106
AT	105	106	106	94	101
DE	104	101	111	93	100
NL	103	118	102	88	103
EU27	100	100	100	100	100
UK	99	91	128	100	103
ES	96	98	89	125	94
EL	94	93	76	111	96
CY	90	99	111	48	103
PT	87	121	83	102	75
SI	83	94	89	84	85
MT	78	123	150	90	84
EE	77	88	72	84	81
LV	75	90	55	84	80
HR	75	103	94	86	83
TR	73	104	71	103	90
CZ	72	101	63	112	65
HU	70	101	80	103	67
SK	70	104	56	116	61
PL	69	101	74	94	83
LT	67	90	59	65	72
RO	62	84	52	78	62
ME	62	92	57	59	59
RS	58	98	57	43	62
BA	56	95	77	80	58
AL	53	98	55	94	44
BG	51	85	44	75	40
MK	47	100	38	74	45
Variation coefficients:					
EA16	15.6	10.0	21.6	18.3	18.7
EU15	12.4	18.7	17.6	14.9	17.1
EU27	23.8	17.2	30.5	18.7	26.9
All 37	28.9	16.9	34.0	20.2	32.9

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 4%, 3%, 3% and 8% of household final consumption expenditure, respectively.

Price dispersion for personal transport equipment (mainly cars – see Box 2) is not very high, but there are two countries that stand out with very high PLIs: Denmark and Norway. This is due to high taxation levels on cars in these two countries. The lowest prices are found in Romania, but these are only 16% below the EU27 average, demonstrating the relative closeness of prices for personal transport equipment among the other 35 countries.

Price dispersion is significantly higher among the two services categories in this table (transport services and restaurants and hotels), whereas communication takes a middle place being a mix of services and equipment. 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, whereas 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 Member State.

Finally, Norway and Denmark again stand out with by far the most expensive restaurants and hotels, whereas the lowest prices for these services are observed in Bulgaria.

Box 1: Data sources

Within the framework of the Eurostat-OECD Purchasing Power Parities (PPP) program, surveys on prices of household goods and services are carried out cyclically by National Statistical Institutes (NSIs) of 37 countries: the 27 EU Member States, 3 Candidate Countries (Croatia, the former Yugoslav Republic of Macedonia and Turkey), 3 EFTA countries (Iceland, Norway and Switzerland) and 4 Western Balkan countries (Albania, Bosnia and Herzegovina, Montenegro and Serbia).

Each survey cycle comprises 6 surveys, each related to a particular group of household consumption products. As 2 surveys are run per year, the whole survey cycle takes 3 years to conclude, before the next cycle starts. The prices used for this publication are therefore collected in 2006, 2007 and 2008. The prices collected in 2006 and 2007 are updated to 2008 using detailed consumer price indices. The PLIs presented in this article are based on annual national average prices for in total about 2500 goods and services.

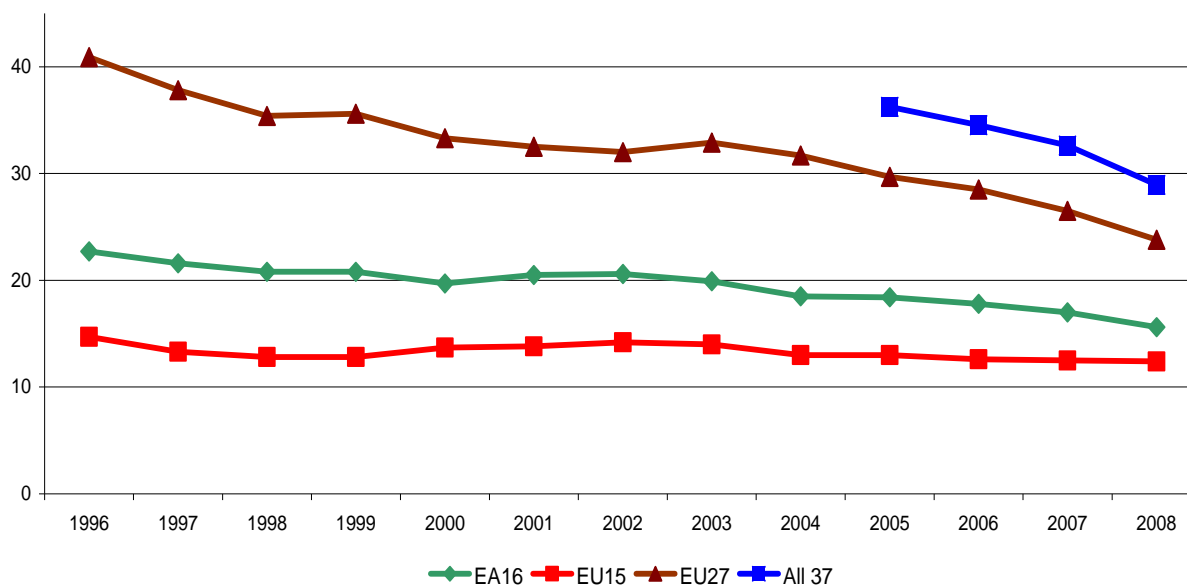
The expenditure shares reported in this article are based on national accounts data for 2007 and represent the average over all participating countries. The national accounts data are also used as weights in the aggregation of detailed PLIs to aggregate PLIs such as for HFCE.

Price convergence

Graph 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 there is a clear decrease of the variation coefficient for the group of 27 Member States between 1996 and 2008. However, the

variation coefficient is rather stable for the group of 15 "old" 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 price convergence in these years.

Graph 2: Price convergence - variation coefficient of price level indices of final household consumption expenditure



Box 2: 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

Restaurants and hotels: for example: restaurants, cafés, pubs, bars, canteens, hotels, youth hostels.

Box 3: The impact of exchange rate 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. A depreciation of a country's currency against the euro will make the country cheaper in comparison to euro area countries and this will show as a decrease of the relative price level expressed in the PLI.

In 2008, several countries experienced relatively large exchange rate movements. The two most prominent examples are Iceland (depreciation of 45% between 2007 and 2008) and the United Kingdom (depreciation of 16% between these two years). This explains in part the relatively low position of these two countries in PLIs compared to previously published data for 2007.

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.

Country abbreviations

EU member states		Candidate countries	
BE	Belgium	HR	Croatia
BG	Bulgaria	MK*	former Yugoslav Republic of Macedonia
CZ	Czech Republic	TR	Turkey
DK	Denmark		
DE	Germany	EFTA countries	
EE	Estonia	CH	Switzerland
IE	Ireland	IS	Iceland
EL	Greece	NO	Norway
ES	Spain		
FR	France	Western Balkan countries	
IT	Italy	AL	Albania
CY	Cyprus	BA	Bosnia and Herzegovina
LV	Latvia	ME	Montenegro
LT	Lithuania	RS	Serbia
LU	Luxembourg		
HU	Hungary		
MT	Malta		
NL	Netherlands		
AT	Austria		
PL	Poland		
PT	Portugal		
RO	Romania		
SI	Slovenia		
SK	Slovakia		
FI	Finland		
SE	Sweden		
UK	United Kingdom		

*MK: Provisional code which does not prejudice 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

Data: [Eurostat Website: http://ec.europa.eu/eurostat](http://ec.europa.eu/eurostat)

Data on "Economy and Finance":

<http://epp.eurostat.ec.europa.eu/portal/page/portal/hicp/data/database>

(Select "Consumer price indices")

More information about "Economy and Finance", "Harmonized Indices of Consumer Prices":

<http://epp.eurostat.ec.europa.eu/portal/page/portal/hicp/introduction>

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