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Statistics

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#### **Prices**

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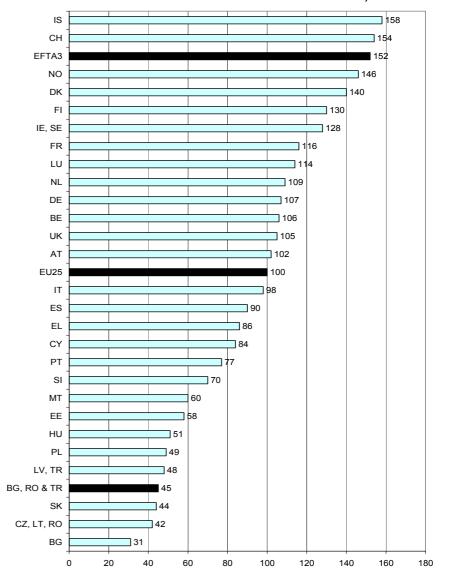


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## Comparative price levels for selected consumer services in Europe for 2005

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Services form a large part of the economy, and generally there are significant price level differences in services between countries. It is a general rule that price levels are closely related to overall levels of economic development of countries – a higher level of economic development leads to higher price levels, especially for services. Compared to goods, large price differences are explained by lower tradability and comparability. This article presents Price Level Indices (PLIs) for five selected consumer service categories, based on Purchasing Power Parities (PPP) produced for the 31 countries<sup>1</sup> participating in the European Comparison Programme (ECP). These service categories are energy, transport, communication, restaurants and hotels and recreational and cultural services. These five service categories comprise 23% (average across Europe) of total household expenditure.



#### Chart 1: Price level indices for all consumer services 2005, EU-25=100

(1) The 25 EU Member States, the 2 Acceding Countries Bulgaria and Romania, the Candidate Country Turkey, and the 3 EFTA countries Iceland, Norway and Switzerland

## Selected consumer services: Price Level Indices (PLIs) for 2005 - comparison between EU, EFTA, Acceding and Candidate Countries

PLIs provide an indication of the comparative order of magnitude of the price level in one country in relation to others. The level of uncertainty associated with the basic price data, and the methods used for compiling PPPs and PLIs imply that strict ranking of countries is not advisable.

PLIs of the selected services are presented in table 1. For reference, the table also includes PLIs of all consumer goods, consumer services (including housing) and an indicator of general economic development – the level of GDP (measured in terms of Purchasing Power Standards per capita). The table also includes coefficients of variation (CV) calculated across the PLIs of the listed countries (see notes in box 1).

Looking at the CVs, transport, recreational and cultural services and restaurants and hotels have similar

magnitudes of price dispersion which is somewhat higher than energy. Price level variation is lowest for communication services, below even the variation for all consumer goods.

There is a close relationship between price levels and the level of GDP: countries enjoying higher living standards in terms of GDP per capita face higher price levels. One exception is Luxembourg, where the GDP per capita figure is very high, which is partly due to the methodological reasons<sup>2</sup>.

The publication does not include service categories such as health and education. The reason is that government is heavily involved in provision of those services and hence the price measurement for those areas faces major challenges. Page 3 provides an overview for the five selected service categories.

#### Table 1: Price level indices for consumer goods and services for 2005, EU-25=100

Important note. The table should be read, first of all, vertically. For example, 83 for communication services and 56 for energy for Estonia does not mean that communication services are 27% more expensive than energy. However, reading horizontally, we can conclude that the price level of communication services is much closer to the EU average price level (17% below) than the price level of energy (44% below).

|                    | Price level indices            |                            |                                |   |                                |                             |                          |  |                             |
|--------------------|--------------------------------|----------------------------|--------------------------------|---|--------------------------------|-----------------------------|--------------------------|--|-----------------------------|
|                    | The selected consumer services |                            |                                |   |                                |                             |                          |  |                             |
|                    | Energy                         | Trans-<br>port<br>services | Commu-<br>nication<br>services | Recreatio-<br>nal and<br>cultural<br>services | Restau-<br>rants and<br>hotels | All<br>consumer<br>services | All<br>consumer<br>goods | All<br>consumer<br>goods &<br>services | GDP in<br>PPS per<br>capita |
| Belgium (BE)       | 107                            | 112                        | 111                            | 87  | 105                            | 106                         | 104                      | 104                                    | 118                         |
| Czech Rep. (CZ)    | 85                             | 46                         | 106                            | 34  | 51                             | 42                          | 76                       | 58                                     | 73                          |
| Denmark (DK)       | 155                            | 144                        | 82                             | 130   | 149                            | 140                         | 132                      | 136                                    | 124                         |
| Germany (DE)       | 127                            | 106                        | 107                            | 105   | 93                             | 107                         | 102                      | 104                                    | 110                         |
| Estonia (EE)       | 56                             | 54                         | 83                             | 60  | 65                             | 58                          | 73                       | 64                                     | 57                          |
| Greece (EL)        | 69                             | 61                         | 108                            | 83  | 91                             | 86                          | 90                       | 88                                     | 82                          |
| Spain (ES)         | 92                             | 86                         | 101                            | 97  | 92                             | 90                          | 89                       | 90                                     | 99                          |
| France (FR)        | 98                             | 100                        | 111                            | 114   | 109                            | 116                         | 102                      | 109                                    | 109                         |
| Ireland (IE)       | 117                            | 104                        | 116                            | 107   | 128                            | 128                         | 116                      | 123                                    | 137                         |
| Italy (IT)         | 103                            | 87                         | 103                            | 92  | 103                            | 98                          | 107                      | 103                                    | 103                         |
| Cyprus (CY)        | 90                             | 106                        | 43                             | 75  | 102                            | 84                          | 103                      | 94                                     | 84                          |
| Latvia (LV)        | 49                             | 43                         | 102                            | 47  | 61                             | 48                          | 66                       | 57                                     | 47                          |
| Lithuania (LT)     | 58                             | 44                         | 59                             | 41  | 60                             | 42                          | 66                       | 55                                     | 52                          |
| Luxembourg (LU)    | 92                             | 97                         | 81                             | 104   | 99                             | 114                         | 100                      | 107                                    | 248                         |
| Hungary (HU)       | 70                             | 62                         | 91                             | 57  | 60                             | 51                          | 76                       | 64                                     | 61                          |
| Malta (MT)         | 41                             | 84                         | 94                             | 53  | 70                             | 60                          | 91                       | 74                                     | 69                          |
| Netherlands (NL)   | 138                            | 117                        | 100                            | 104   | 101                            | 109                         | 101                      | 105                                    | 124                         |
| Austria (AT)       | 115                            | 108                        | 98                             | 105   | 97                             | 102                         | 103                      | 103                                    | 123                         |
| Poland (PL)        | 76                             | 62                         | 96                             | 60  | 66                             | 49                          | 71                       | 60                                     | 50                          |
| Portugal (PT)      | 99                             | 74                         | 102                            | 69  | 75                             | 77                          | 94                       | 85                                     | 71                          |
| Slovenia (SI)      | 80                             | 78                         | 71                             | 71  | 66                             | 70                          | 84                       | 76                                     | 80                          |
| Slovakia (SK)      | 86                             | 48                         | 101                            | 40  | 47                             | 44                          | 73                       | 58                                     | 55                          |
| Finland (FI)       | 91                             | 135                        | 78                             | 111   | 123                            | 130                         | 114                      | 122                                    | 112                         |
| Sweden (SE)        | 124                            | 138                        | 75                             | 117   | 120                            | 128                         | 114                      | 121                                    | 115                         |
| United Kingd. (UK) | 76                             | 127                        | 91                             | 112   | 117                            | 105                         | 105                      | 105                                    | 115                         |
| EU25               | 100                            | 100                        | 100                            | 100   | 100                            | 100                         | 100                      | 100                                    | 100                         |
| Bulgaria (BG)      | 55                             | 36                         | 92                             | 24  | 33                             | 31                          | 61                       | 43                                     | 32                          |
| Romania (RO)       | 57                             | 43                         | 79                             | 28  | 50                             | 42                          | 64                       | 53                                     | 35                          |
| Turkey (TR)        | 71                             | 60                         | 101                            | 49  | 71                             | 48                          | 83                       | 66                                     | 31                          |
| BG, RO & TR        | 68                             | 53                         | 96                             | 34  | 54                             | 45                          | 77                       | 61                                     | 32                          |
| Iceland (IS)       | 108                            | 176                        | 115                            | 147   | 191                            | 158                         | 152                      | 151                                    | 126                         |
| Norway (NO)        | 119                            | 169                        | 109                            | 150   | 148                            | 146                         | 145                      | 144                                    | 165                         |
| Switzerland (CH)   | 96                             | 134                        | 126                            | 135   | 122                            | 154                         | 117                      | 136                                    | 128                         |
| EFTA3              | 107                            | 149                        | 119                            | 139   | 130                            | 152                         | 128                      | 139                                    | 142                         |
| Variation coeff.   | 30                             | 41                         | 18                             | 42  | 37                             | 42                          | 23                       | 32                                     | -                           |

(2) The GDP per capita in Luxembourg is very high partly due to the large share of cross-border workers in total employment. While contributing to GDP, they are not taken into consideration as part of the resident population which is used to calculate GDP per capita.



#### Box 1: What are price level indices and how are they produced?

The indicators analysed in this article are **Price Level Indices (PLIs)** in relation to the EU average, calculated as the ratio between Purchasing Power Parities (PPPs) and exchange rates to euro for each country. 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. The basic price data entering the calculation of PPP of consumer goods and services are collected with PPP consumer price surveys in 31 countries. 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 used for the PPP calculations are adjusted to annual national average prices, using monthly consumer price indices of the survey year and spatial adjustment factors. Between survey years, benchmark results are extrapolated using annual average Consumer Price Index (CPI) of particular product groups. After collection and validation of price data, the PPPs at the different aggregate levels are calculated using the EKS (Eltetö-Köves-Szulc) procedure. The prices presented in this publication refer only to the services purchased by households and not by, e.g. industrial consumers. This point is important for energy where households and companies are often treated differently.

The benchmark year for energy, transports, communication, recreational and cultural services is 2005 and for restaurants and hotels it is 2004. The 2005 PPP of the latter were obtained by extrapolation of the benchmark PPP (2004) using the annual change of CPI of the relevant services, i.e. restaurants and hotels.

The statistic chosen to measure the relative dispersion of price levels is the **variation coefficient** (the indicator on the bottom row of table 1) of the PLIs, i.e. the spread around its mean value. It is defined as the ratio of the standard deviation to the sample mean: The higher the value, the higher the degree of price level dispersion between the countries.

**Energy.** This group comprises mainly provision of electricity, gas and heat energy and only for housing. Among the chosen five service categories energy has moderate price variation across Europe. Due to high taxation of electricity and gas, Denmark is well above the EU average (PLI 155%). The share of taxes is also quite high in Sweden and the Netherlands. At the same time, Switzerland, which is generally regarded as a high price level country (PLI of all consumer goods and services 36% above the EU average), lies below even the EU average in terms of energy prices. The same applies to the UK (76% of the EU average) for which PLI of all consumer goods and services is 5% above the EU average.

**Transport services.** This category includes all transport, i.e. on land (rail, bus, taxi), by air and on water. As for services in general (see "all consumer services" in table 1), the price levels of transport services are widely spread around the European average, i.e. from 36% of the EU average in Bulgaria up to 176% at the other edge of Europe – Iceland. The Nordic countries are clearly the most expensive. The UK can be regarded as having expensive transport services among the Western European countries.

**Communication services.** The main service categories are fixed and mobile telephone services, provision of internet and postal services. Communication services' price levels are relatively even across the countries and, generally, the prices are not linked to the levels of overall economic development. Although doing generally well in terms of GDP, the people of Finland and Sweden enjoy the advantage of cheap

communication services. The same applies to Denmark. The PLI is well below the other countries in Cyprus (43% of the EU average) which is generally a more expensive country among the new Member States – the PLI of all consumer goods and services is 94% of the EU average. Turkey could be regarded as quite expensive for communication services (PLI just slightly above the EU average) compared with the level of general economic development (GDP is 31% of the EU average). In general, communication services prices can be regarded as also being quite high in the Czech Republic and Greece.

**Recreational and cultural services.** Various sports and free time (theatre, cinema, sports events) services fall under this category. Generally, the price levels follow the overall level of economic development in the countries. As for consumer services in general, the Nordic countries and Switzerland have high price levels. One should keep in mind that government partly covers the costs of sports and cultural services, making them cheaper for consumers. However, government is involved to various degrees in different countries and hence has differing impacts on price levels.

**Restaurants and hotels.** Again, several Nordic countries (Iceland, Denmark and Norway) are relatively expensive. Iceland (91% above the EU average) is far ahead of all other countries included in this comparison programme. Among the new Member States it is relatively cheap to eat out and stay over-night in the Czech Republic and Slovakia, whereas the holiday destination Cyprus is relatively expensive.

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