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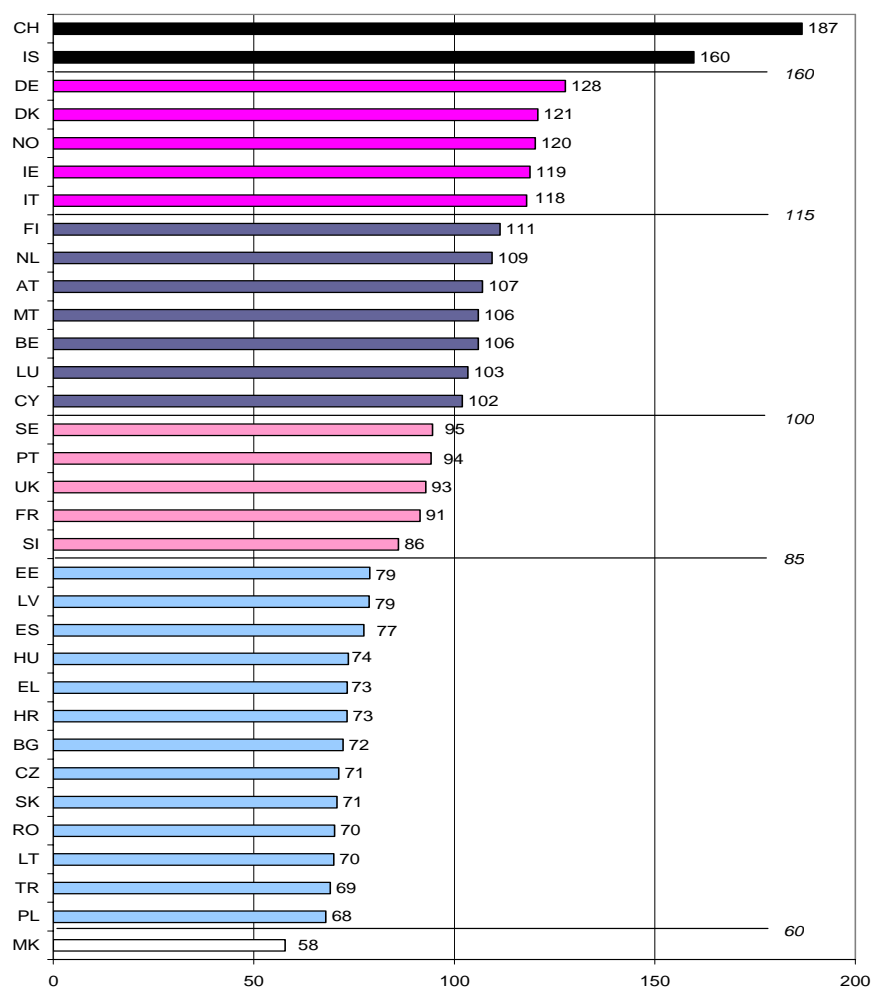
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Pharmaceutical products - comparative price levels in 33 European countries in 2005

In the framework of the joint Eurostat–OECD Purchasing Power Parity (PPP) Programme, surveys on prices of goods and services are carried out by National Statistical Institutes (NSIs). 37 countries are currently participating in the surveys co-ordinated by Eurostat¹. The OECD co-ordinates the surveys for the 12 non-European OECD Member States. These spatial price surveys are corner stones of the work resulting in annual volume comparisons of the National Accounts aggregates: Gross Domestic Product (GDP) and its main components. This article provides results of the pharmaceutical products price survey carried out in November 2005 for 33 countries.

Chart 1: Price level indices for pharmaceutical products, EU25=100



¹ These are the 27 EU Member States, the 3 Candidate Countries Croatia, the former Yugoslav Republic of Macedonia (MK; see METHODOLOGICAL NOTES) and Turkey, the 3 EFTA countries Iceland, Norway and Switzerland and 4 more Western Balkan Countries Albania, Bosnia-Herzegovina, Montenegro and Serbia. In this article, however, the data of the latter 4 countries are not yet presented.

Pharmaceutical products – the survey 2005

Expenditure on pharmaceutical products forms on average, for the 33 countries presented here, 1.5% of GDP. Expenditure is incurred by households as well as by governments. For households, the share of pharmaceutical products in total final expenditure is 1.3%.

Price data for in total 181 different pharmaceutical products were collected in November 2005, as part of a more general survey on health goods and services. The prices collected represent the full market price of a product. In many instances, only part of the price of a product is paid by households, while the remaining part is covered by government through social security schemes. In this survey the total price was collected, i.e. the sum of the share of the price paid by a household and the share of the price paid by the government. That means that the price level indices shown here are not a reflection of what households pay out of their "own pocket" but of total costs of pharmaceuticals to society, including the parts covered by private health insurance schemes on behalf of households.

To establish the list of products to be priced, two aspects are important. First and most important, products have to be found that are comparable across

countries. For pharmaceuticals this is relatively easy, as they can be identified among other things by active substance. Secondly, for each country in the comparison the list of products should be sufficiently representative, i.e. reflecting the product consumers actually buy. For this purpose, first a list of best-selling drugs was compiled on the basis of detailed sales information from a large number of countries. To obtain the highest possible representativity the products were taken from the top of the best-sellers list².

Furthermore, a distinction was made between "original" drugs, which are those that are or have been covered by a patent, and "generic" drugs, which are copies of original drugs that are produced after the patent has expired. The list of 181 products that were to be priced consisted of about 75% original drugs and 25% generic drugs. This ratio was one of the findings from the analysis of the best-sellers lists.

In many countries prices were collected from centralised information systems from ministries of health, supervising bodies for the pharmaceutical industry or associations of pharmacists. In other countries, prices were collected by visiting pharmacies.

Comparative price levels of pharmaceutical products

Chart 1 shows the price level indices (PLIs) for pharmaceuticals. The PLI for a country indicates its price level compared to the average price level of the 25 countries that made up the EU in 2005. The level of uncertainty associated with the underlying price and other data, and the methods used for compiling PPPs and PLIs imply that strict ranking of countries is not advisable (see also the methodological notes). In chart 1, the countries are therefore divided into six groups.

The top group consists of two countries that have significantly higher price levels than the others: Iceland and Switzerland, with price levels being 60% and 87% higher than the EU25 average respectively. In the second group of most expensive countries (where price levels are between 15% and 30% higher than the EU25 average) we find Denmark, Germany, Ireland, Italy and Norway.

Seven countries have price levels between 0% and 15% higher than the EU25 average: Belgium, Cyprus, Luxembourg, Malta, the Netherlands, Austria and Finland. Another five countries have price levels between 0% and 15% lower than the EU25 average: France, Portugal, Slovenia, Sweden and the United Kingdom.

Then there is a large group of countries with price levels between 68 and 80% of the EU25 average: Bulgaria, Czech Republic, Estonia, Greece, Spain, Latvia, Lithuania, Hungary, Poland, Romania, Slovakia, Croatia and Turkey. It is especially remarkable how even the price distribution is among the new Member States and Acceding and Candidate countries. From the new Member States, only Cyprus, Slovenia and Malta are closer to price levels of the pre-2004 Member States. The lowest price levels are found in the Former Yugoslav Republic of Macedonia at 58% of the EU25 average.

² Eurostat would like to thank pharmacist Mrs. G. Schuh, Nittel, Germany, for help in establishing the item list.

Price dispersion of pharmaceutical products

The level of price dispersion across countries can be measured by the coefficient of variation of the PLIs, which is defined as the standard deviation as percentage of the average. A high coefficient of variation indicates a high price dispersion. Table 1 shows the coefficients of variation for all pharmaceuticals, for all original pharmaceuticals and

for all generic pharmaceuticals. It shows that prices for original drugs are less dispersed than those of generic drugs. This is probably due to the greater heterogeneity of generic drugs compared to originals and to the fact that generic drugs are often produced for domestic markets only.

Table 1: Coefficients of variation of the PLIs

All pharmaceutical products	Original drugs	Generic drugs
27.9	25.8	42.8

➤ ESSENTIAL INFORMATION – 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 on

http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1073_465872_59&_dad=portal&_schema=PORTAL&p_product_code=KS-BE-06-002

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 States it is 2.20 dollars, the PPP for hamburgers between France and the United States is 2.84 euros to 2.20 dollars or 1.29 euros to the dollar. In other words, for every dollar spent on hamburgers in the United States, 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. 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.

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 codes: MK is a 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 United Nations.

Further information:

Data:

[EUROSTAT Website/Data/Economy and finance/Prices/Purchasing power parities](http://europa.europa.eu/eurostat/Website/Data/Economy%20and%20finance/Prices/Purchasing%20power%20parities)

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Their mission is to provide help and guidance to Internet users of European statistical data.

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