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THEME 2 - 65/2003

PRICES AND
PURCHASING POWER
PARITIES

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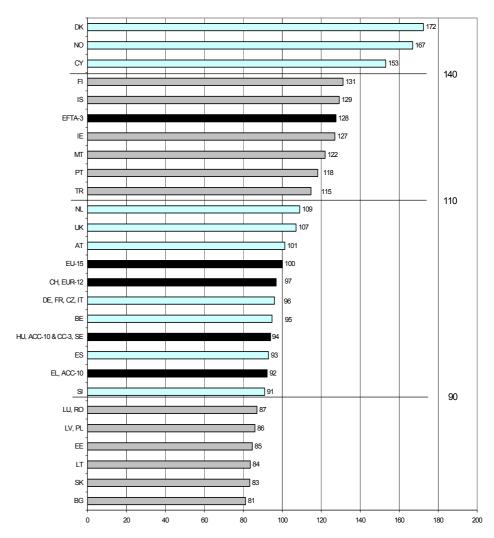
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Relative prices for new passenger cars in EU, EFTA¹, Acceding and Candidate Countries for 2002

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This article presents price level indices for passenger cars, that are based on Purchasing Power Parities (PPP) produced for the 31 countries² participating in the European Comparison Programme (ECP). This publication describes relative prices for a particular product group and is part of a series of studies regularly released by Eurostat. In addition to relative prices of all passenger cars, it includes also price level indices for petrol engine cars with a further division by size of engine. In PPP price surveys generally the observed price is the purchaser's price including all margins, taxes and duties, i.e. the price that final consumers actually pay.

Chart 1: Price level indices for new passenger cars 2002, EU-15=100



⁽¹⁾ Excluding Liechtenstein

⁽²⁾ The 15 EU Member States, the 10 Acceding Countries, the 3 Candidate Countries, Iceland, Norway and Switzerland

New passenger cars: Price level indices for 2002 – comparison between EU, EFTA and **Acceding and Candidate Countries**

Price level indices 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. Therefore it is advisable to use these indices for dividing countries into groups of a comparable price level. Based on the price level indices of passenger cars shown in Chart 1, the following groups of countries can be distinguished:

Group I (≥140% of the EU average) Denmark, Norway and Cyprus;

Group II (≥110% and <140% of the EU average): Finland, Iceland, Ireland, Malta, Portugal and Turkey;

Group III (≥90% and <110% of the EU average): Netherlands, United Kingdom, Austria, Switzerland, Germany, France, Czech Republic, Italy, Belgium, Hungary, Sweden, Spain, Greece and Slovenia;

Group IV (<90% of the EU average): Luxembourg, Romania, Latvia, Poland, Estonia, Lithuania, Slovakia and Bulgaria.

Table 1: Price level indices of new passenger cars for 2002, EU-15=100

	Passenger cars total	Passenger cars with petrol engine	Passenger cars with petrol engine less than 1700cc*	Passenger cars with petrol engine of 1700cc* and more	Private household consumption expenditure**
Belgium (BE)	95	95	93	97	99
Denmark (DK)	172	168	163	177	131
Germany (DE)	96	95	97	93	104
Greece (EL)	92	93	89	109	80
Spain (ES)	93	91	91	92	82
France (FR)	96	96	96	95	100
Ireland (IE)	127	126	127	125	118
Italy (IT)	96	95	95	94	95
Luxembourg (LU)	87	87	86	90	100
Netherlands (NL)	109	106	105	109	102
Austria (AT)	101	102	101	105	102
Portugal (PT)	118	114	114	116	74
Finland (FI)	131	130	127	136	123
Sweden (SE)	94	94	96	90	117
United Kingdom (UK)	107	106	107	105	107
EUR-12	97	97	97	96	97
EU-15	100	100	100	100	100
Iceland (IS)	129	125	126	121	131
Norway (NO)	167	166	164	166	145
Switzerland (CH)	97	96	98	94	144
EFTA-3	128	127	137	107	144
Czech Republic (CZ)	96	94	92	101	53
Estonia (EE)	85	83	83	84	56
Cyprus (CY)	153	147	137	173	83
Latvia (LV)	86	84	84	84	50
Lithuania (LT)	84	83	82	83	51
Hungary (HU)	94	92	88	102	55
Malta (MT)	122	119	112	138	72
Poland (PL)	86	85	83	90	57
Slovenia (SI)	91	90	88	95	73
Slovakia (SK)	83	82	81	87	43
ACC-10	92	91	87	102	56
Bulgaria (BG)	81	80	77	86	40
Romania (RO)	87	86	83	93	39
Turkey (TR)	115	112	104	138	49
ACC-10 & CC-3	94	93	89	104	52



^{*}cc - capacity of engine in cubic centimetres **Private household consumption expenditure = Household expenditure on consumer goods and services

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

The indicators analysed in this article are Price Level Indices (PLIs), calculated as the ratio between Purchasing Power Parities (PPPs) 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.

The basic price data entering the calculation of PPP of consumer goods and services are collected with PPP consumer price surveys in all 31 countries covered by the Programme (ECP). 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 (the prices underlying this publication were collected in November 2002). 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 of particular product groups. Generally, the prices observed are the market prices consumers actually pay, including all margins, taxes and duties. However, the information currently available does not allow us to make adjustments for discounts. On the other hand, adjustments for differences in specifications and options included in standard version (that could be quite different by countries) are made. The price information is collected on new cars, i.e. for second hand cars no price collection is made.

After collection and careful validation of price data, the information on relative prices at aggregate level are gained via PPP aggregation procedure that is carried out using the EKS (Elteto-Köves-Szulc) formula.

Table 1 presents the price level indices (EU-15=100) of new passenger cars with the subcategory petrol engine cars that is further split into two groups by cubic capacity of engine. The relative prices of private household consumption expenditure are given for reference.

For passenger cars as a whole the price levels vary from 81% of EU average in Bulgaria to 172% in Denmark. Interestingly, the two island Acceding Countries – Cyprus and Malta – belong to the group of countries with relatively high car prices. Luxembourg is the only EU Member State where the car prices for the final consumer are even lower than average of Acceding Countries.

Besides Denmark, with by far the highest taxes applied to purchases of passenger cars in Europe, the impact of high taxes is visible for Finland (price level index 131% of EU average), but also for Ireland (127%), Portugal (118%) and the Netherlands (109%)³. However, there is no straight forward correlation between the tax rates and the spatial price level differences. In countries with high tax rates for car purchases, car producers obviously tend to charge lower pre-tax prices, i.e. they pass-on the taxes only partially to consumers. This incomplete pass-on of taxes leads to the situation that the pre-tax prices are amongst the lowest in Finland when compared with other EU countries.

(3) For information on passenger car taxation in EU, please see Commission document COM (2002) 431 "Communication from the Commission to the Council and the European Parliament: Taxation of passengers cars in the European Union - options for action at national and Community levels"

Whereas the differences in taxes and duties have significant impact on purchaser's price, the spatial income level differences and competition should also be mentioned as important factors determining the margin for the car manufacturers and dealers. In addition, in the United Kingdom, car prices include the additional cost of UK specification, in particular right-hand drive.

Although not directly comparable, it is interesting to see the price level differences of cars against the relative prices of total household expenditure (last column in table 1). Among those countries with high price level indices for cars, for Turkey, Malta, Cyprus and Portugal a substantial difference can be observed between these two indices. The opposite example is Switzerland. While having a general price level for consumer goods and services 44% above the EU average, car prices are 3% below the EU average.

As the main aim of price collection in the European Comparison Programme is to enable the comparison of real GDP (GDP volume), the car price collection forms only a small part of all goods and services surveyed in the Programme. Limited number of price observations does not allow us to present very detailed information on relative prices and therefore the table 1 presents the lowest level possible that can be published. The data presented on petrol cars shows that there are no large differences between the two sets of relative prices when the petrol cars are split according to the size of engine.

ESSENTIAL INFORMATION

Publications in 2004 based on PPP price survey results

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