# Economy and finance

Author: Carlos DIAZ MURIEL

# Prices for investments goods show similar levels across Europe in 2007

Price levels for investment goods in 2007 were very similar across Europe: in Norway investment goods prices are 17% higher than the average of the 27 EU Member States, while in Lithuania prices are 13% lower than this average. Among the EU Member States, the most expensive countries are Denmark and Greece (8% and 9% above the average, respectively).

These are the main results of a survey of investment goods prices in 2007 across 37 European countries. This survey is part of the Eurostat – OECD Purchasing Power Parities (PPP) programme (see methodological notes). The 37 countries that participated in this survey 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 survey 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 if the price level index is lower than 100, then the country is relatively cheap compared to the EU average.

Figure 1 shows the 2007 PLIs for investment goods. It shows that the spread in prices across Europe is very limited.



Figure 1: 2007 Price level indices for investment goods (EU27 = 100)

Source: Eurostat

eurostat 📖

EUROPEAN COMMISSION

\*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

# 2007 Price level indices for investment goods

The following groups can be distinguished according to countries' PLIs. They are also shown in Figure 1.

# Group 1 (>= 105)

Norway, Iceland, Greece, Denmark and Finland.

## Group 2 (>=100 and <105)

Ireland, Portugal, Cyprus, Latvia, Malta, Netherland, Slovakia, Belgium, Sweden, Bosnia and Herzegovina, Spain, Italy, France and Germany.

# Group 3 (>=95 and < 100)

Luxembourg, Montenegro, United Kingdom, Czech Republic, Serbia, Switzerland, Austria, Turkey, Poland, Romania, Slovenia and Hungary.

## Group 4 (<95)

Albania, Estonia, Croatia, Bulgaria, the former Yugoslav Republic of Macedonia and Lithuania.

# Price dispersion of investment goods

	Euro area (EA 15)	EU 15	EU27	All 37
GFCF	13.7%	14.0%	19.2%	27.0%
Total investment goods	3.4%	3.4%	5.1%	6.2%
Metal products and equipment (excluding electrical and optical equip.)	4.8%	4.7%	6.6%	7.1%
Electrical and optical equipment	4.3%	3.9%	4.7%	6.6%
Transport equipment	6.4%	5.7%	7.5%	8.1%
Software	11.2%	10.5%	11.1%	11.5%

### Table 1: Variation coefficients by product sub-groups for 2007

Source: Eurostat

Table 1 above, which is based on table 2, shows the price dispersion within the euro area (EA15), the EU15, the EU27 and all the 37 countries participating in the comparison programme. This price dispersion is measured, for each product sub-group, by the variation coefficient, i.e. the standard deviation expressed as a percentage of the arithmetic mean of the countries' PLIs. The higher the coefficient, the higher is the price dispersion.

Looking at the product sub-groups, transport equipment and software are the categories that show the highest dispersion with 8.1% and 11.5% respectively for all 37 countries. Electrical and optical equipment show the most homogeneous ratios, with a figure of 6.6% for all the 37 countries.

Looking at groups of countries, the euro area and the EU15 are the most homogeneous groups with a rate of 3.4% for total investment goods, while the group of 37 countries shows the highest dispersion, with a variation coefficient of 6.2% for total investment goods.

For reasons of comparison, the table also includes the variation coefficients for gross fixed capital formation (GFCF), one of the main components of GDP. GFCF is composed of construction and other investment goods. Investment goods constitutes on the average about 9% of GDP in the countries included here (and 38% of GFCF). Price dispersion for construction is generally much higher than for equipment goods, which is due to the higher labour content of construction and the wide spread in the salaries paid in the construction sector in the various countries. The low price dispersion for investment goods can be explained by a high level of integration of the markets for these products across Europe.

Prices for construction are presented in a separate Statistics-in-Focus publication.

# 2007 PLIs for GFCF, total investment goods and its product sub-groups

Table 2 gives the PLIs for gross fixed capital formation (GFCF), total investment goods and its product sub-groups.

The most expensive countries for metal products and equipment are Greece (PLI of 111) and Denmark (110) while Lithuania (79) is the cheapest.

For electrical and optical equipment, Iceland (120) and Norway (119) show the highest price

levels. Albania (86) is the cheapest country for this category.

Regarding transport equipment, Norway (123) is the most expensive country while Bulgaria (84) shows the lowest prices.

Finally, for investment in software, Malta (120) and Denmark (119) are the most expensive countries while Lithuania (79), Turkey (79) and Albania (80) show the lowest price levels.

# Table 2: 2007 PLIs for GFCF, total investment goods and its components (EU27 = 100)

Country		GFCF	Total Investment goods	Metal products and equipment	Electrical and optical equipment	Transport equipment	Software
Belgium	BE	100	101	101	104	98	106
Bulgaria	BG	60	89	89	91	84	106
Czech Republic	CZ	75	99	98	103	95	101
Denmark	DK	133	108	110	100	110	119
Germany	DE	107	100	105	99	102	83
Estonia	EE	84	93	91	98	88	99
Ireland	IE	107	104	101	98	113	91
Greece	EL	87	109	111	113	105	110
Spain	ES	86	100	98	103	97	110
France	FR	107	100	96	100	100	107
Italy	IT	89	100	105	99	98	96
Cyprus	CY	83	103	98	112	102	87
Latvia	LV	99	103	101	110	95	115
Lithuania	LT	80	87	79	94	93	79
Luxembourg	LU	103	99	99	102	96	106
Hungary	HU	79	95	92	101	94	85
Malta	MT	76	102	93	103	106	120
Netherlands	NL	114	102	99	100	104	110
Austria	AT	109	97	94	99	99	93
Poland	PL	83	96	91	104	94	100
Portugal	PT	77	103	103	105	111	83
Romania	RO	70	96	97	102	90	100
Slovenia	SL	82	95	95	100	90	96
Slovakia	SK	79	102	100	103	101	112
Finland	FI	114	106	97	105	116	115
Sweden	SW	122	101	97	97	103	112
United Kingdom	UK	120	99	99	98	102	99
Croatia	HR	66	92	88	97	92	88
the Former Yugoslav Republic of Macedonia	MK	51	88	80	96	89	97
Turkey	TR	59	97	94	97	104	79
Switzerland	CH	108	97	97	96	96	100
Iceland	IS	147	113	105	120	96	109
Norway	NO	135	117	105	119	123	117
Albania	AL	60	93	106	86	96	80
Bosnia and							
Herzegovina	BA	59	101	101	103	96	106
Montenegro	ME	57	99	97	107	92	100
Serbia	RS	57	98	93	99	101	100
Maximum		147	117	111	120	123	120
Minimum		51	87	79	86	84	79
Max./Min.		286	134	142	140	147	151

Source: Eurostat

# **ESSENTIAL INFORMATION – METHODOLOGICAL NOTES**

# What are purchasing power parities (PPPs) and price level indices (PLIs)?

The indices in this publication are produced by the Eurostat-OECD Purchasing Power Parity programme. The full methodology used in this programme is described in the <u>Eurostat-OECD Methodological manual on purchasing power</u> <u>parities</u> which is available free of charge from the Eurostat website.

In their simplest form PPPs are nothing more than price relatives showing the ratio of prices in national currencies for an identical or comparable 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 to obtain the same quantity and quality (or volume) of hamburgers.

Price level indices as presented in this publication are the ratios of PPPs to exchange rates. PLIs provide a measure of the differences in price levels between countries by indicating for a given product group the number of units of the common currency needed to buy the same volume of the product group in each country. PLIs are not intended to rank countries strictly since they are statistical constructs rather than precise measures. Like all statistics, they are point estimates with a certain "error margin". It is, therefore, preferable to use PLIs to identify clusters of countries having a comparable price level.

# What are the main characteristics of the investment goods survey?

The investment goods survey is carried out every two years. This 2007 survey, results of which are published on this SIF, was carried out in April and May 2007.

Countries collect prices for a list of 243 products, which together with alternatives, produce a list of 618 items (an item may be a product, but also an alternative to this product – different make or model, different capacity, etc.)

Each country is asked to price a minimum of 80 to 90 products covering all the basic headings of the investment goods survey. These basic headings make up the main categories of investment goods as follow:

Metal products and equipment (excluding electrical and optical): fabricated metal products; engines; other general purpose machinery; agricultural and forestry machinery; machine tools; machinery for construction; machinery for food; machinery for textile; other special purpose machinery

Electrical and optical equipment: office machinery; computers; electrical machinery; radio and TV; medical and precision instruments; other manufactured goods

Transport equipment: motor vehicles; other road transport; boats, steamers, tugs, floating platforms, rigs; locomotives, rail cars, wagons, other rail equipment; aircraft, helicopters, hovercraft and other aeronautical equipment

Software: software

Countries are asked to collect purchasers' prices for investment products, i.e., prices actually paid in the markets for investment goods, including non-deductible VAT, trade margins, transport, delivery and assembly cost.

# **Further information**

Data: <u>Eurostat Website: http://ec.europa.eu/eurostat</u> Select your theme on the left side of the homepage and then 'Data' from the menu. **Data :<u>Eurostat Web site/Economy and Finance</u>** 

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