



# STATISTICS IN FOCUS

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### COMPARISON IN REAL TERMS OF THE GROSS DOMESTIC PRODUCT FOR THE EUROPEAN UNION, ICELAND, NORWAY, SWITZERLAND AND POLAND - 1995

Eurostat, the Statistical Office of the European Communities, has just established for the Member States, Iceland, Norway, Switzerland and Poland purchasing power parities that allow for 1995 a comparison in real terms of the gross domestic product (GDP) which is the main indicator of economic activity. The results are presented in the attached table. More detailed results will be published later in the year.

Switzerland, Iceland and Norway participate in the Eurostat annual comparison programme as EFTA countries. Poland joined this programme in 1993 on an experimental basis and, from 1994, has been a full member.

The use of the exchange rate for international comparison of economic aggregates does not allow a real comparison of the volume of goods and services produced and used in different countries. GDP per capita in ECU is considerably higher in Luxembourg than in Greece or in Portugal. Nevertheless, this difference corresponds not only to a higher volume of goods and services but also to a higher general price level in Luxembourg. The calculation of purchasing power parities makes it possible to eliminate this price level difference from the comparison and thus obtain a real volume comparison between countries. The purchasing power parities between currencies are obtained

using the price ratios between the different countries for a basket of goods and services both comparable and representative. The individual price ratios are aggregated, according to well defined criteria, up to the GDP global parity.

This note presents only the main results for GDP and per capita GDP. Purchasing power parities are expressed in relation to a reference "numéraire" which is the purchasing power standard (PPS). This "numéraire" is defined in such a way that the value of the GDP of the EU in 1995 in ECU is the same as the value expressed in PPS.

The table starts by presenting for the different countries the exchange rates and the purchasing power parities. The parity/exchange rate ratio is an index of price levels, in itself an important indicator. It measures the relation between the price level of a given country and the community average (EUR15=100). This reveals differences between the various price levels of 66.9 to 126.6 for EU countries and of 39.5 to 143.3 for all countries demonstrating the difficulties of comparing the economies of different countries using official exchange rates.

Another significant indicator for international comparisons is the per capita GDP index. It represents the relation between the per capita GDP of each country and the average per capita GDP of the EU. It is

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worth noting that the index can be significantly different according to whether exchange rates or purchasing power parities are used.

Thus, Denmark, for which the per capita value index is 147.0 if the calculation is based on data in ECU, changes to a volume index of 116.1 if the conversion factor is purchasing power parities. This is related to its high price level index (126.6). The opposite phenomenon can be observed for Greece and Portugal for which per capita value indices of 48.5 and 45.0 respectively change to per capita volume indices of 65.7 and 67.2. The 1 : 4 ratio of per capita GDP between Greece and Switzerland for data in ECU is no more than 1 : 2 if the conversion factor used is the purchasing power parity. This result alone shows the need to have

purchasing power parities as a tool to obtain real volume comparisons between countries.

Volume indices should not be used to establish a strict ranking of countries; in fact they only give an indication of the comparative order of magnitude (in volume terms) of economic activity in each country in relation to others. Thus, when comparing per capita volume indices for Finland and the United Kingdom (95.9 and 95.8 respectively), the conclusion which can be drawn is that per capita GDP in volume terms in these two countries is of the same order of magnitude, and that a comparison of the per capita value indices for these two countries computed using exchange rates (108.5 and 83.3 respectively) gives a biased view, due to the difference in price levels.

**NOTE:** The results presented here are subject to sampling and other errors; small differences between the measures are unlikely to be statistically significant.

### Abbreviations

<b>B</b>	Belgium	<b>A</b>	Austria
<b>DK</b>	Denmark	<b>P</b>	Portugal
<b>D</b>	FR of Germany	<b>FIN</b>	Finland
<b>EL</b>	Greece	<b>S</b>	Sweden
<b>E</b>	Spain	<b>UK</b>	United-Kingdom
<b>F</b>	France	<b>IS</b>	Iceland
<b>IRL</b>	Ireland	<b>N</b>	Norway
<b>I</b>	Italy	<b>CH</b>	Switzerland
<b>L</b>	Luxembourg	<b>POL</b>	Poland
<b>NL</b>	Netherlands		


#### To know more about:

Publication "Comparison in real terms of the aggregates of ESA - 1995 results". (in preparation).

EUROSTAT - B3: 352-4301.34122 G. Amerini

## Comparison in real terms for the European Union, Iceland, Norway, Switzerland and Poland

### GDP RESULTS - 1995

 eurostat	<u>Exchange rate:</u> 1 ECU=... National currency units	<u>Purchasing power</u> <u>parities:</u> 1 PPS =...National currency units	<u>Price level index</u> EUR 15 = 100	<u>Per capita value index</u> (based on ECU values) EUR 15 = 100	<u>Per capita volume</u> <u>index</u> (based on PPS values) EUR 15 = 100
B	38.55	40.48	105.0	117.8	112.2
DK	7.328	9.274	126.6	147.0	116.1
D*	1.874	2.221	118.5	131.0	110.6
EL	303.0	223.8	73.9	48.5	65.7
E	163.0	134.5	82.5	63.3	76.7
F	6.525	7.118	109.1	117.3	107.5
IRL	0.8155	0.6993	85.8	79.7	92.9
I	2130	1708	80.2	82.6	103.0
L	38.55	42.83	111.1	187.7	169.0
NL	2.099	2.234	106.4	113.5	106.7
A	13.18	15.13	114.8	124.2	108.2
P	196.1	131.2	66.9	45.0	67.2
FIN	5.709	6.458	113.1	108.5	95.9
S	9.332	10.72	114.9	115.8	100.8
UK	0.8288	0.7205	86.9	83.3	95.8
IS	84.69	83.60	98.7	116.6	118.2
N	8.286	10.08	121.6	148.7	122.3
CH	1.546	2.216	143.3	191.8	133.8
POL	3.171	1.253	39.5	13.6	34.3

\* Data for Germany as constituted from 3 October 1990.

#### N.B.

These results are based on the GDP estimates, that were available in Eurostat in December 1996 (January 1997 for the United Kingdom).

