Regions: Statistical yearbook 2006

Data 2000-2004

Chapter 2
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Introduction
Statistical data at the regional level

The Structural Funds for the period 2007 to 2013 were decided in December 2005. This decision was based on the objective regional statistics compiled by Eurostat, thus highlighting the importance of our effort to produce a wide range of comparable regional information.

This yearbook shows many aspects of this regional data and suggests in the various chapters some of the analyses which can be made with them. But we also invite you the reader to yourself continue the analyses of the regional data supplied in each of the different themes presented here. We also hope that this publication will make you keen to further investigate Eurostat’s statistical databases (available free of charge on the internet).

In keeping with the traditions of the Regional yearbook, we try to renew the publication a little each year, but also to keep its structure basically unchanged. In this way, many subjects reappear from year to year, but the theme or focus of the subject is always slightly different. This year we again have one theme that is totally new for the Regional Yearbook, namely “labour productivity”, which combines statistics on GDP with labour market statistics in a very interesting way. This kind of cross-cutting of different statistical domains could of course also be conducted with other statistical themes, but we will for the moment leave that to a future edition of the yearbook.

Some highlights

We will not present here the content of all chapters of this Regional Yearbook. Here, however, are some hints to whet your appetite to read it carefully:

- The population chapter this year focuses on old and young dependency ratios in the coming decades, highlighting the drastic changes of society we will have to cope with.
- The chapter on regional GDP centres its attention on growth rates between 1999 and 2003, giving interesting insights into regional differences.
- The Urban Audit chapter concentrates on the competitiveness of cities, analysing various facets of benchmarking cities that compete against each other.
- The chapter on the Structural Business Survey focuses on specialised regions in different industrial and service activities. This highlights the heterogeneity of European regions in terms of the production process and skills.

Regional classification

All regional analysis in this yearbook is based on NUTS 2003. In the meantime, the ten new Member States have also been formally integrated into the new regional classification in the form of an amendment to the NUTS Regulation. The texts of the Regulation and the amendment are available on the CD-ROM – as is the annex, which lists the regions making up the nomenclature in each country.

Coverage

No distinction is made in the yearbook between the old Member States, the countries that became Member States in 2004 and those due to join in 2007 or 2008: wherever data are available for Bulgaria and Romania, these of course also feature in the maps and commentaries. In the case of Turkey and Croatia, there are still too few regional data to justify including them in the analyses.

Structure

In each chapter, regional distributions are highlighted by colour maps and graphs which are then evaluated by expert authors in text commentaries. In keeping with the traditions of the yearbook, an effort has been made to focus on aspects not recently covered.
In order to assist the understanding of the maps, the data series used for the maps in the yearbook are provided as Excel files on the CD-ROM.

In the maps, the statistics are presented at NUTS level 2. A map giving the code numbers of the regions can be found in the sleeve of this publication. At the end of the publication there is a list of all the NUTS-2 regions in the European Union, together with a list of the level 2 statistical regions in Bulgaria and Romania. Full details of these national regional breakdowns, including lists of level 2 and level 3 regions and the appropriate maps, may be consulted on the RAMON server.1

More regional information needed?

The public REGIO database on the Eurostat website contains more extensive time series (which may go back as far as 1970) and more detailed statistics than those given in this yearbook, such as population, death and birth by single years of age, detailed results of the Community labourforce survey, etc. Moreover, there is coverage in REGIO of a number of indicators at NUTS level 3 (such as area, population, births and deaths, gross domestic product, unemployment rates). This is important because there are no fewer than eight EU Member States (Cyprus, Denmark, Estonia, Latvia, Lithuania, Luxembourg, Malta and Slovenia) that do not have a level 2 breakdown.

For more detailed information on the contents of the REGIO database, please consult the Eurostat publication ‘European regional and urban statistics — Reference Guide 2003’, a copy of which is available in PDF format on the accompanying CD-ROM.

In addition, the reader is also invited to consult the web version of the “Portraits of the Regions”, which give regional profiles of all individual regions across Europe.2 These regional topical profiles describe the geography and history of the region, before going on to assess its strengths and weaknesses in terms of demographic, economic and cultural issues. Among the aspects examined are the labour market, education, infrastructure and resources.

Regional interest group on the web

Eurostat’s regional statistics team maintains a publicly accessible interest group on the web (‘CIRCA site’) with many useful links and documents.3

Among other resources, you will find:

- a list of all regional coordination officers in the Member States, the candidate countries and the EFTA countries;
- the latest edition of the “Regional and Urban Reference Guide”;
- PowerPoint presentations of Eurostat’s work concerning regional and urban statistics;
- the regional classification NUTS for the Member States and the regional classification of the candidate countries.

Closure date for the yearbook data

The cut-off date for this issue was the 15th of May 2006.

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1 See http://europa.eu.int/comm/eurostat/ramon/index.cfm?TargetUrl=DSP_PUB_WELC


3 See http://forum.europa.eu.int/Public/irc/dsis/regstat/information
Regional gross domestic product
What is regional gross domestic product?

The economic development of a region is, as a rule, expressed in terms of its gross domestic product (GDP). This is also an indicator frequently used as a basis for comparisons between regions. But what exactly does it mean? And how can comparability be established between regions of different sizes and with different currencies?

Regions of different sizes achieve different levels of GDP. However, a real comparison can only be made by comparing the regional GDP with the population of the region in question. This is where the distinction between place of work and place of residence becomes significant: GDP measures the economic performance achieved within national or regional boundaries, regardless of whether this was attributable to resident or non-resident employed persons. Reference to GDP per inhabitant is therefore only straightforward if all employed persons engaged in generating GDP are also residents of the region in question.

In areas with a high proportion of commuters, regional GDP per inhabitant can be extremely high, particularly in economic centres such as London or Vienna, Hamburg, Prague or Luxembourg, and relatively low in the surrounding regions, even if primary household income in these regions is very high. Regional GDP per inhabitant should therefore not be equated with regional primary income.

Regional GDP is calculated in the currency of the country in question. In order to make GDP comparable between countries, it is converted into euros using the official average exchange rate for the given calendar year. However, exchange rates do not reflect all the differences in price levels between countries. In order to equate the currencies, GDP is converted using currency conversion rates, known as Purchasing Power Parities (PPPs), into an artificial common currency, called the Purchasing Power Standard (PPS). This makes it possible to compare the purchasing power of the different national currencies (see box).

Regional GDP in 2003

Map 2.1 gives an overview of the regional distribution of per capita GDP (in PPS) for the European Union, plus Bulgaria and Romania. It ranges from PPS 4,721 per capita in north-east Romania to PPS 60,342 per capita in the UK capital region of Inner London. Brussels (PPS 51,658) and Luxembourg (PPS 50,844) follow in second and third places, with Hamburg (PPS 40,011) and the French capital region Île-de-France (PPS 37,687) in fourth and fifth places.

Prague (Czech Republic), the region with the highest GDP per inhabitant in the new Member States with PPS 30,052 (138% of the EU-25 average), has already risen to nineteenth place (2002: 20th) among the 268 NUTS 2 regions of the countries examined here (EU-25 plus Bulgaria and Romania). It should be noted, however, that Prague is an exception among the regions of the new Member States. The next regions of those which joined the EU in 2004 and of the candidate countries follow some
way behind: Bratislavský kraj (Slovakia) is only in 53rd place (2002: also 53rd) with PPS 25 190 (116%), Közép-Magyarország (Hungary) is 130th (2002: also 130th) with PPS 20 627 (95%), Cyprus is 180th (2002: 170th) with PPS 17 377 (80%), Slovenia is 190th (2002: 191st) with PPS 16 527 (76%), Mazowieckie (Poland) is 203rd (2002: 204th) with PPS 15 833 (73%) and Malta is 204th (2002: 194th) with PPS 15 797 (73%). All other regions in the new Member States and candidate countries have a per capita GDP in PPS of less than two-thirds of the EU-25 average.

In 74 of the 268 regions examined here, the per capita GDP (in PPS) in 2003 was less than 75% of the EU-25 average. As can be seen from Map 2.2, most of these regions are in the southern and western periphery of the EU, as well as in eastern Germany, the new Member States and the candi-
date countries. This group has been considerably reduced in size since 2002, when it comprised 80 regions. In Spain and Greece in particular, two regions in each country crossed the 75% of per capita GDP barrier.

At the upper end of the spectrum, 36 regions had a per capita GDP of more than 125% of the EU-25 average in 2003, down from 41 in 2002. Most of these particularly affluent regions are in southern Germany, in the south of the UK, in northern Italy and in Belgium, Luxembourg, the Netherlands, Ireland and Scandinavia. Madrid, Prague and Paris also fall into this category.

The central part of the distribution curve, which includes the regions with a per capita GDP of between 75% and 125% of the EU-25 average, thus increased from 147 regions in 2002 to 158 regions in 2003. Economic convergence between the regions of the 27 countries examined here therefore clearly improved in 2003: the range of per capita GDP values between Inner Lon-
don and north-east Romania fell from 13.9:1 in 2002 to 12.8:1 in 2003. The least affluent regions also benefited from this development, with the number of regions with GDP values below 40% of the EU average falling from 23 in 2002 to 21 in 2003.

### Major regional differences even within the countries themselves

There are also substantial regional differences even within the countries themselves, as Graph 2.1 shows. In 2003, the highest per capita GDP value was more than double the lowest value in 12 of the 19 countries examined here, which
include several NUTS 2 regions (2002: also 12). This group includes 5 of the 6 new Member States/candidate countries but only 7 of the 13 EU-15 Member States.

The largest regional differences are in the United Kingdom and Belgium, where there is a factor of 3.7 and 3.1 respectively between the two extreme values. The lowest values are in Ireland and Sweden, with a corresponding factor of 1.6 in each case. Moderate regional disparities in per capita GDP (i.e. factors of less than 2 between the highest and the lowest value) are found only in the EU-15 Member States and Bulgaria.

Comparatively large regional disparities in per capita GDP are therefore still evident not only in the EU-15 countries but also in the new Member States and candidate countries. However, there was a slight narrowing of the range of values
in both groups of countries between 2002 and 2003. Regional convergence can therefore be seen not only vis-à-vis the EU average but also within most countries.

In all the new Member States and candidate countries, and in a number of the EU-15 Member States, a substantial share of economic activity is concentrated in the capital regions. In 13 of the 19 countries included here in which there are several NUTS 2 regions, the capital regions are also the regions with the highest per capita GDP. For example, Maps 2.1 and 2.2 clearly show the prominent position of the regions of Brussels, Prague, Madrid, Paris, Lisbon as well as Budapest, Bratislava, London, Sofia and Bucharest.

Catching-up process in the new Member States is not successful everywhere

Map 2.3 shows the extent to which per capita GDP changed between 1999 and 2003 by comparison with the EU-25 average (expressed in percentage points of the EU-25 average). Economically dynamic regions, whose per capita GDP increased by more than one percentage point compared to the EU average, are shown in green. Less dynamic regions (those with a fall of more than one percentage point in per capita GDP compared to the EU-25 average) are shown in orange and red. The values range from +18.1 percentage points for Groningen (Netherlands) to -11.7 percentage points for Trento in Italy.

The map shows that economic dynamism is well above average in the peripheral areas of the EU, not only in the EU-15 countries but also in the new Member States and accession countries. Among the EU-15 Member States, strong growth can be seen in Greece, Spain, Ireland and the United Kingdom, in particular. On the other hand, a trend revealed by earlier data has continued, with persistent low growth in a few key regions of the EU founding Member States, and in Portugal. Italy, where not a single region achieved the average growth of the EU-25 between 1999 and 2003, and Portugal, where only Madeira was able to make progress vis-à-vis the EU-25, were hit particularly hard by this unwelcome development. Most of the regions in Germany and France also fell short of the EU average.

Of the new Member States and the accession countries, where the capital regions are very dynamic, the Baltic countries, Hungary and Slovenia, in particular, have experienced above-average growth. Recent developments in Bulgaria and Romania are also encouraging, with only one region in each country falling below the EU-25 average. However, the increases in GDP values in Poland since 1999 have been only slightly above the EU-25 average, which is disappointing in view of the low level of GDP overall.

On closer analysis, it is immediately apparent that 12 regions increased by at least 10 percentage points compared to the EU average, while only eight fell by at least 10 percentage points. Of the regions which are particularly dynamic, three are in Greece, two in the United Kingdom and four in the new Member States/accession countries. The fastest growing regions are therefore scattered relatively widely across the countries examined here. However, eight of these 12 regions are capital regions, which continue to have an above-average rate of growth not only in the EU-15 countries but also in the new Member States and accession countries.

The EU-15 countries which have particularly poor growth are concentrated at the lower end of the distribution curve. Of the eight regions which fell by more than 10 percentage points in comparison with the EU average, four are in Italy, three in Germany and one in Portugal.

A more diverse picture emerges by including regions which either gained or lost at least five percentage points against the EU average between 1999 and 2003.

It can be seen from the upper end of the distribution curve that the 56 most successful regions include 11 out of 13 regions in Greece. These are joined by 16 out of 37 regions in the UK and nine out of 19 regions in Spain. This means that 36 of the 56 most successful regions are located in these three countries. In total, 43 regions from this group are in the EU-15 countries.

This shows that 13 regions in the new Member States and accession countries have gained at least 5 percentage points compared to the EU average. The capital regions in Romania and Hungary (both + 16.2 percentage points), Slova-
kia (+13.9) and the Czech Republic (+10.9) were particularly successful. The non-capital region with the strongest growth among the regions in the new Member States and accession countries was Nord-Est in Romania, the per capita GDP (in PPS) of which increased by 6.7 percentage points between 1999 and 2003 from 22.4% to 29.1% of the EU-25 average.

A clear concentration of regions is also apparent at the lower end of the distribution curve: of the 42 regions which fell by at least 5 percentage points, 20 are in Germany, ten in Italy, five in France and three in Portugal. A large number of German and Italian regions in this group have an above-average level of GDP, thus making the disappointing trend of recent years less unsatisfactory than in Portugal. The Portuguese regions of Norte (−8.2 percentage points) and Centro (−6.4), which had a GDP of less than 70% of the EU-25 average at the end of the 1990s, have fallen...
further behind to a worrying degree. This makes the region of Norte the least prosperous region in the EU-15; in 2003, its GDP was 57.4% of the EU average, i.e. the same as that of the Romanian capital, Bucharest.

The new Member States and accession countries are catching up with the EU-25 average at a rate of 0.8 percentage points every year, which at first glance appears to be encouraging. On closer inspection, however, it is clear that not all countries and regions were able to benefit from this: in particular, Poland, Cyprus and Malta, and, to some extent, the Czech Republic and Bulgaria. 24 of the 55 regions in the new Member States and accession countries gained fewer than three percentage points, which was below the average; of those 24 regions, 12 are in Poland, six in the Czech Republic and three in Bulgaria. Eight regions fell even further behind: four in Poland, one in Bulgaria and one in Romania. The strongest downturns were seen in Malta, with a drop of –4.1 percentage points.

**Different trends even within the countries themselves**

Graph 2.2 illustrates the economic development of individual countries between 1999 and 2003. It shows that the dynamics of economic development between the regions in one country can diverge almost as widely as between regions in different countries. The greatest differences in dynamics can be seen in the Netherlands and Romania, where the per capita GDP in each of the most economically dynamic regions increased by around 20 percentage points more than in the least economically developed regions. The corresponding figures for the United Kingdom and Portugal were 17 and 15 percentage points respectively. At the opposite end of the scale lie Sweden and Belgium, with a regional range of 8 percentage points, and Poland, with a corresponding value of 3.6 percentage points.

The pronounced regional differences within the new Member States and accession countries can be attributed largely to the dynamic growth of the capital regions. However, there is no reason to believe, on the basis of the data available, that major differences in the distribution of growth rates are typical of the new Member States or accession countries.

Graph 2.2 also shows that the least economically dynamic regions in only a small number of countries attained levels of growth at least equal to the EU-25 average. This was achieved by only five of the 19 countries with several NUTS 2 regions examined here: the Czech Republic, Greece, Ireland, Hungary and Slovakia.

**Summary**

In 2003, the highest and lowest values of per capita GDP (in PPS) for the 268 regions examined here differed in 27 countries by a factor of 12.8:1, which is still very high but slightly lower than the previous year. The number of regions with per capita GDP (in PPS) below 75% of the EU-25 average also fell from 80 to 74. Economic convergence between the regions therefore improved in 2003.

Economic development in the EU-15 countries was characterised by dynamic growth in Greece, the UK and Spain. This contrasted with disappointing economic development in most of the Italian, German and Portuguese regions. In the new Member States and accession countries, economic development in the Baltic countries and in Hungary, Romania and Bulgaria was particularly encouraging, while growth in most of the Polish regions remained disappointing.

Between 1999 and 2003, per capita GDP increased by more than five percentage points compared to the EU average in 56 regions. One or two regions in most countries fell behind, and in some cases far behind, in comparison with the EU average. The dynamics of growth in the capital regions of most countries was clearly above-average. At the lower end of the scale were 42 regions which fell by at least five percentage points; most of them were in Germany, Italy and Portugal. As a result of the unsatisfactory economic development in Portugal, the regions of Norte and Centro, where GDP was already below 70% of the EU-25 average, fell again by around 8 and 6 percentage points respectively.

The new Member States and accession countries continued to catch up with the EU-25 average at a rate of around 0.8 percentage points every year.
However, not all the regions of the new Member States are able to benefit from this to the same extent. This is particularly true of Poland, Cyprus and Malta. All the new Member States taken together rose by 3.2 percentage points to 52.9% of the EU-25 average between 1999 and 2003. The corresponding values for Bulgaria and Romania were 3.7 and 4.7 percentage points respectively. One region in each of these two accession countries was unable to share in this generally favourable economic development: Yugoiztochen in Bulgaria and Nord-Est in Romania. With per capita GDP standing at just under 22% of the EU-25 average, this region is the least affluent in the 27 countries examined here.
Purchasing power parities and international volume comparisons

International differences in GDP values, even after conversion via exchange rates to a common currency, cannot be attributed solely to differing volumes of goods and services. The “level of prices” component is also a major contributing factor. Given that exchange rates are determined by many factors influencing demand and supply in the currency markets (such as international trade, inflation expectations and interest rate differentials), conversion via exchange rates in cross-border comparisons is of limited use. To obtain a more accurate comparison, it is essential to use special conversion rates (spatial deflators) which remove the effect of price-level differences between countries. Purchasing Power Parities (PPPs) are currency conversion rates of this kind which convert economic data expressed in national currencies into an artificial common currency, called Purchasing Power Standards (PPS). PPPs are therefore used to convert the GDP and other economic aggregates (e.g. consumption expenditure on certain product groups) of various countries into comparable volumes of expenditure, expressed in Purchasing Power Standards.

With the introduction of the euro, prices can now, for the first time, be compared directly between countries in the euro-zone. However, the euro has different purchasing power in the different countries of the euro-zone, depending on the national price level. PPPs must therefore also continue to be used to calculate pure volume aggregates in PPS for Member States within the euro-zone.

In their simplest form, PPPs are a set of price relatives, which show the ratio of the prices in national currency of the same good or service in different countries (e.g. a loaf of bread costs €1.87 in France, €1.68 in Germany, £0.95 in the UK, etc.). A basket of comparable goods and services is used for price surveys. These are selected so as to represent the whole range of goods and services, taking account of the consumption structures in the various countries. The simple price ratios at product level are aggregated to PPPs for product groups, then for overall consumption and finally for GDP. In order to have a reference value for the calculation of the PPPs, a country is usually chosen and used as the reference country, and set to 1. For the European Union, the selection of a single country as the reference country is inappropriate, so the PPS of the EU is used as an artificial common unit of reference to express the volume of economic aggregates for the purpose of spatial comparisons in real terms.

Unfortunately, for reasons of cost, it will not be possible in the foreseeable future to calculate regional currency conversion rates. If such regional PPPs were available, the GDP in PPS for numerous peripheral or rural regions of the EU would probably be higher than that calculated using the national PPPs.

The regions may be ranked differently when calculating in PPS instead of euros. For example, in 2003 the German region of Dessau was reported as having a per capita GDP of €17 145, putting it well ahead of Malta with €10 773. However, with PPS 15 797 per capita, Malta ranks above Dessau with its PPS 15 413 per capita.

In terms of distribution, the use of PPS rather than the euro has a levelling effect, as regions with a very high per capita GDP also generally have relatively high price levels. This reduces the range of per capita GDP in NUTS 2 regions in EU-25 plus Bulgaria and Romania from around €62 300 to around PPS 55 600.

Per capita GDP in PPS is the key variable for determining the eligibility of NUTS 2 regions under the European Union’s structural policy.
### EUROPEAN UNION: NUTS 2 regions

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AT12 Niederösterreich
AT13 Wien
AT21 Kärnten
AT22 Steiermark
AT31 Oberösterreich
AT32 Tirol
AT34 Vorarlberg
PL11 Łódzkie
PL12 Mazowieckie
PL21 Małopolskie
PL22 Śląskie
PL31 Lubelskie
PL32 Podkarpackie
PL33 Świętokrzyskie
PL34 Podlaskie
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PL42 Zachodniopomorskie
PL43 Lubuskie
PL51 Dolnośląskie
PL52 Opolskie
PL61 Kujawsko-Pomorskie
PL62 Warmińsko-Mazurskie
PL63 Pomorskie
PT11 Norte
PT15 Algarve
PT16 Centro (PT)
PT17 Lisboa
PT18 Alentejo
PT20 Região Autónoma dos Açores
PT30 Região Autónoma da Madeira
SI00 Slovenija
SK01 Bratislavs ký kraj
SK02 Západoslovensko
SK03 Stredoslovensko
SK04 Východoslovensko
FI13 Itä-Suomi
FI18 Etelä-Suomi
FI19 Länsi-Suomi
FI1A Pohjois-Suomi
FI20 Äland
SE01 Stockholm
SE02 Östra Mellansverige
SE04 Sydsverige
SE06 Norska Mellansverige
SE07 Mellersta Norrland
SE08 Övre Norrland
SE09 Småland med öarna
SE0A Västsverige
UKC1 Tees Valley and Durham
UKC2 Northumberland and Tyne and Wear
UKD1 Cumbria
UKD2 Cheshire
UKD3 Greater Manchester
UKD4 Lancashire
UKD5 Merseyside
UKE1 East Riding and North Lincolnshire
UKE2 North Yorkshire
UKE3 South Yorkshire
UKE4 West Yorkshire
UKF1 Derbyshire and Nottinghamshire
UKF2 Leicestershire, Rutland and Northamptonshire
UKF3 Lincolnshire
UKG1 Herefordshire, Worcestershire and Warwickshire
UKG2 Shropshire and Staffordshire
UKG3 West Midlands
UKH1 East Anglia
UKH2 Bedfordshire and Hertfordshire
UKH3 Essex
UKJ1 Berkshire, Buckinghamshire and Oxfordshire
UKJ2 Surrey, East and West Sussex
UKJ3 Hampshire and Isle of Wight
UKJ4 Kent
UKK1 Gloucestershire, Wiltshire and North Somerset
UKK2 Dorset and Somerset
UKK3 Cornwall and Isles of Scilly
UKK4 Devon
UKL1 West Wales and the Valleys
UKL2 East Wales
UKM1 North Eastern Scotland
UKM2 Eastern Scotland
UKM3 South Western Scotland
UKM4 Highlands and Islands
UKN0 Northern Ireland
CANDIDATE COUNTRIES:
Statistical regions at level 2

BG11 Severozapaden
BG12 Severen tsentralen
BG13 Severoiztochen
BG21 Yugozapaden
BG22 Yuzhen tsentralen
BG23 Yugoiztochen
RO01 Nord-Est
RO02 Sud-Est
RO03 Sud
RO04 Sud-Vest
RO05 Vest
RO06 Nord-Vest
RO07 Centru
RO08 București