

# **Suburbanisation, Counterurbanisation, Reurbanisation?**

## **An empirical analysis of recent employment and population trends in Western Europe**

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## Abstract

In order to achieve and foster spatial cohesion – as it is the aim of the European Union (EU) – the knowledge about the development of population and jobs in the regions of the EU member states is indispensable. Surprisingly, the information and knowledge about regional structural changes is rather limited. Thus, this paper wants to shed light on recent employment and population trends in the EU member states. It consists of three major analytical steps: Firstly, for the 15 member states a comparable classification into urban, suburban, less condensed and rural areas is carried out on the NUTS 3 level. On this basis, a second section analyses the aggregated development trends of the four spatial categories, including both population and employment figures for all member states. Finally, the paper analyses the degree of divergence or convergence within and across the three types of areas and draws conclusions for the fields of regional economics and spatial planning.

The empirical results give evidence, that the recent population development in Europe is not marked by a single tendency. Whereas in some countries there are clear tendencies of concentration (Finland, Denmark and Sweden), others (i.e. Ireland, Greece and Spain) are characterized by suburbanisation tendencies. Furthermore, in most of the central European states both population and employment are undergoing some forms of deconcentration. Concerning the question of convergence respectively divergence due to recent regional structural changes the main finding was that the *average GDP-per capita* of urban centres, suburban, less condensed and rural areas slightly deviated from each other in the years 1981-1996: While urban centres improved their relative position, the other region types stagnated or fell moderately behind. It could be proved, however, that the *standard deviation within the four region types* significantly decreased since 1986, with the exception of the large urban centres.

### *Key words:*

Spatial cohesion, counterurbanisation, suburbanisation, reurbanisation, rural areas, metropolitan areas, convergence, Europe, population, employment, disurbanisation

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# 1 Introduction

In 1999, the European Spatial Development Perspective (ESDP) of the EU introduced the notion of spatial cohesion: “Policy must ensure that all regions, even islands and peripheral regions, have adequate access to infrastructure, in order to promote social and economic and, therefore, spatial cohesion in the Community” (ESDP 1999, 26). Even though the meaning of ‘spatial cohesion’ has not been clearly defined so far, it probably can best be interpreted as convergent development: the reduction of economic and social disparities between the spatial units, i.e. the nations, regions, counties or even cities of the European territory. In this sense, the concept of spatial cohesion also addresses the traditional dichotomy of urban and rural areas: If a convergent development is to be achieved, also the disparities between agglomerations and peripheral rural areas need to recede. Surprisingly, the recent population and employment trends of urban and rural areas in the European member states are rather unclear and rarely observed. Furthermore, both - agglomerations and the ‘periphery’ - seem to develop in a rather heterogeneous way. The ESDP (1999) highlights that “a number of rural areas have not yet managed to achieve structural change and have considerable economic problems, often due to their peripheral location.” (p. 23). On the other hand, there are “rural areas which are subject to new pressures, for example through economic growth and the expansion of neighbouring settlements of metropolises and larger cities” (p. 23). Similarly, agglomerations as well as medium-sized cities pursue different, partly opposed development paths.

The description and analysis of regional demographic and economic trends is not a mere academic concern. In times of decreasing public funds, the identification of the most lagging areas becomes a vital need. How can the objective of spatial cohesion best be attained – by fostering the structural change of the deindustrialising agglomerations? Or by promoting the economic development of peripheral rural areas? Apparently, there are arguments for both positions: “Several contributions emphasised the particular interest that should be accorded to towns, acting as engines of regional growth and dynamic economic forces. (...) Other contributions highlighted the importance of continued Community intervention in rural areas, which should address the wider rural economy and area, not only the agricultural sector.” (CEC 2003, 26)

The question whether the objective of spatial cohesion requires the promotion of urban rather than rural areas or vice versa cannot be answered easily. In contrast, it is necessary to analyse recent data on population and employment changes to find out, first, whether a common trend in spatial structural changes can be observed across the EU 15 member states and, second, which type of areas benefited or suffered the most from these changes. If common development trends are revealed and empirical studies show that metropolitan areas attract the largest shares of population and employment increases (‘urbanisation’ or ‘reurbanisation’), one can deduce that national and EU policies should rather

concentrate on peripheral rural areas. If, in contrast, a sort of peripheral growth ('counterurbanisation') can be observed, it would be justified to put more attention to urban areas and agglomerations.

In view of the high policy relevance of spatial employment and demographic changes, this paper seeks to answer the question whether the recent geography of population and jobs in the EU is characterized by similar development trends across the EU 15 member states. If so, can these development trends be classified rather as a concentration process (urbanisation or reurbanisation) or as a deconcentration process (suburbanisation, counterurbanisation). We first briefly introduce the concepts of re-, sub- and dis- or counterurbanisation (section 2) and discuss some recent research findings (section 3). Subsequently, a fourfold classification of urban centres, suburban, less condensed and rural areas is proposed and applied to the reality of the 15 EU member states (section 4). On this basis, the performance of the four region types in the 1990s is compared (section 5). Finally, we test whether the recent trends can be interpreted as convergence or divergence (section 6), and draw some conclusions on the policy implications of our findings (section 7).

## **2 The concepts of suburbanisation, counterurbanisation and reurbanisation**

Only a few years after the emergence of the counterurbanisation concept, van den Berg et al. (1982) formulated a fourfold model of town development, distinguishing the phases of urbanisation, suburbanisation, disurbanisation and reurbanisation. Each of these phases is marked by specific development trends of the core, the ring and the wider hinterland of a city (see Table x). During the urbanisation phase, the loss of jobs in the agricultural sector leads to migration flows towards the city, especially to the core. In the subsequent suburbanisation period, the economic restructuring of the city and the evolution of land prices induces a shift of population and jobs from the core to the ring. In contrast, the disurbanisation phase starts when the total population of an observed functional urban region (core and ring) decreases, leading to the redistribution of inhabitants and jobs in favour of small and medium cities in the FUR's hinterland (Dematteis 1986). Finally, the model of van den Berg (1982) foresees a sort of urban regeneration, marked by an absolute concentration of population in the city's core. This reurbanisation trend may be due to successful regeneration measures within the city centers, to a selective migration of (young) households in search of urban lifestyles (Maier and Tödtling 1992) or to the newly arising importance of global cities (Geppert 1996).

**Figure 1: Model of town development**

			<i>core</i>	<i>ring</i>	<i>agglomeration</i>
Urbanisation	1)	absolute concentration	++	-	+
	2)	relative concentration	++	+	+++
Suburbanisation	3)	relative deconcentration	+	++	+++
	4)	absolute deconcentration	-	++	+
Disurbanisation	5)	absolute deconcentration	--	+	-
	6)	relative deconcentration	--	-	---
Reurbanisation	7)	relative concentration	-	--	---
	8)	absolute concentration	+	--	-

Source: van den Berg 1982

Both concepts – the US notion of counterurbanisation and van den Berg’s 4-phases-model of town development – have in common that they foresee a phasis of large-scale redistribution and deconcentration of population. However, the understandings of ‘counterurbanisation’ and ‘disurbanisation’ differ in so far as “il primo presuppone una serie abbastanza numerosa di città e quindi si riferisce soltanto a grandi aggregati territoriali, il secondo riguarda il singolo sistema urbano” (Dematteis 1986, 122). Despite of this difference, the terms of counter- and disurbanisation are often used synonymously (e.g. Geppert 1996). As the study presented in this paper adopts a macro-perspective of regional structural change, in the following we prefer to speak of counterurbanisation.

The briefly presented concepts of Berry (1973, 1976) and van den Berg (1982) were frequently used to explain the 1970s and 1980s patterns and trends of spatial structural change in United States and Western Europe. Interestingly, no consensus on the correctness of the counterurbanisation and the reurbanisation hypotheses has ever been achieved. Often, the empirical findings seem to contradict each other (see section 3), which may be due to two general shortcomings of both models:

- Both Berry and van den Berg provide “empirical models without theoretical contents” (Dematteis 1986, 121). They rather describe observable trends than providing explanations on the underlying driving forces such as infrastructural improvements, changed mobility patterns and progresses in IT (Geppert 1996), agglomeration diseconomies (Bade 1997), residential preferences of employers (Coombes et al. 1989; Keeble and Tyler 1995, van Dam 2000), technological changes in the industrial production (Coombes et al. 1989, 14), the role of public policies and the diffusion of anti-urban ideologies (Dematteis 1981), or ‘quality of life considerations’ (William and Jobes 1990, Heins and van Dam 2001).
- Both models do not contain clear criteria for delineating metropolitan areas and for measuring counterurbanisation. Therefore, a distinction between ‘spill-over’ and ‘clean break’, between sub- and counterurbanisation remains an unsolved methodological problem (see e.g. Gordon 1979;

Koch 1980; Mueller and Schaeffer 1981, 1983). Different forms of operationalisation are used, ranging from moves towards rural areas to net-migration of urban and rural areas or net population redistribution. In addition, the units of analysis vary: “Sometimes functional urban regions are set up against their rural counterparts and sometimes built-up areas are contrasted to their surroundings.” (Amcoff 2000, 2).

Within the scope of this paper we will not address the complex field of determinants of sub-, counter- and reurbanisation (for some considerations on this issue see Kiehl and Panebianco 2001, 2002). Instead, we focus on the problem of how to delineate metropolitan areas in order to distinguish reurbanisation from (extended) suburbanisation and counterurbanisation. Departing from the definition of van den Berg (1982), in the following, we adopt an understanding of re-, sub- and counterurbanisation as *relative* shifts of shares in population or employment with regard to the national average development:

- *suburbanisation*: the suburban areas of a country display an above-average growth in population or employment;
- *counterurbanisation*: the rural areas of a country display an above-average growth in population or employment; rural areas which directly border upon urban centres are not considered within this category;
- *reurbanisation*: the urban centres of a country display an above-average growth in population or employment. This constellation could also mirror the process of urbanisation rather than reurbanisation. We assume, however, that at least the majority of European agglomerations has already experienced a phase of suburbanisation and deconcentration. Therefore, all urbanisation trends are simply collated to the category ‘reurbanisation’.

A detailed explanation of the criteria used for distinguishing urban, suburban and rural areas is provided in section 5 of this paper.

### 3 Contradictory research findings

In this paragraph a short review about more recent cross national studies analysing the development of employment or population in the EU 15 member states is given. Unfortunately, the number of recent cross national studies is rather limited whereas the number of national studies is immense. As it would exceed the scope of this paper to describe and summarize this enormous number of national studies, the authors use the example of Germany to clarify, that even national studies – addressing the same topic at the same spatial level – come to contradictory research findings.

Beginning the review in the 1980s and early 1990s a vast number of studies about the development of employment and population can be found. Kontuly provided a synopsis and summary of the major studies – concerning population development - of this period of time. Summarizing the results of the different studies Kontuly divided 18 European countries – reflecting their major development tendencies (counterurbanisation vs. urbanisation) – into the following six groups (Kontuly, 1998, 65):

- Strong urbanisation during 1970s, 1980s and 1990s: Czechoslovakia, East Germany and Portugal;
- Slowing urbanisation during the 1970s: Finland, Ireland and Norway;
- Slowing urbanisation during the 1980s: Spain;
- Counterurbanisation during the 1970s: Belgium, Denmark, France, Iceland, the Netherlands, Sweden and Switzerland;
- Counterurbanisation during the first half of the 1980s: Austria, West Germany and Italy;
- Counterurbanisation in the second half of the 1980s: Greece.

Trying to look more closely on the time period after 1985 Kontuly describes the situation as rather complex. Whereas some states show counterurbanisation tendencies (Denmark, France, Greece and Italy) others show reurbanisation tendencies (Austria, Iceland and the Netherlands). For the majority of states no firm statement was possible (ibid.).

During the same period of time the general discussion about spatial structural changes was expanded. Whereas in former studies mostly the population development was analysed, the deconcentration of economic activities became more important in the 1980s. Examples are the book “Unequal Growth” published by Fothergill and Gudgin in 1983 claiming that industrial jobs are increasingly displaced from urban to rural regions. Others, as Aydalot for some European states or Istel (1982) and Müller/Schaeffer (1981, 1983) for the German case discuss the issue likewise.

As mentioned above – with a few exceptions - a lack of recent trans-national studies about the development of population and jobs is existing. Exceptions are the studies of Cheshire (1995), Champion, Monnesland and Vandermotten (1996) or Kiehl and Panebianco (2002a/ 2002b). Cheshire

for instance analysed the population development of functional urban regions in the Netherlands, Belgium, West-Germany, France, Italy, Spain and the UK for the time period 1981 to 1991. He reveals decentralisation tendencies for the UK and to some extent for Italy and France. However, more noticeable are in his point of view the re-urbanisation tendencies in most North European Countries. "It may be that the smallest and most rural places, at least in northern Europe, have continued to gain population the fastest; but if attention is focused on the EU's larger cities, an important change of pattern emerges. The regular onward march of decentralisation appears to have faltered and, in northern Europe, it has halted, even reversed" (Cheshire, 1995, 1058).

In contrast, empirical work on Germany, Italy and the UK led the present writers to conclude, that "the employment counterurbanisation trend emerges as the main development tendency of the structural changes over the last three decades" (Kiehl/ Panebianco, 2002a). According to our studies, both in Italy and Western Germany, the rural areas attained the highest relative gains in job development in the time span 1970-1999. In Great Britain, the relative employment increases of the rural areas are insignificantly smaller than the ones of the semi-urbanised areas. In contrast, the agglomerations' total share of employment has diminished significantly. Contrary to the long term trends, the trends in the 1990s are barely comparable at a first glance. In Western Germany the rural and the semi-urbanised areas continue to develop more favourably than the agglomerations, while the situation in Eastern Germany is marked by an above-average employment loss in rural areas. In Great Britain, the semi-urbanised areas perform best in the 1990s. The situation appears once more different in Italy, where no significant differences can be found concerning the job development of rural, semi-urbanised and urban areas (ibid.).

This short review about cross national studies clarifies that no firm statement about the regional structural changes is possible. Whereas some studies – Cheshire (1995) for instance – suggest re-urbanisation tendencies others as Kiehl and Panebianco (2002a) give evidence of an ongoing decentralisation tendency. Obviously, different tendencies and trends can be observed and confirmed by empirical results depending on the time period covered, the chosen region of analysis, the analysed country or the applied methodology. Furthermore, most of the studies cover only the time period till 1990/ 1991 - when the penultimate census took place- or in some cases till the mid 1990s. Results for the second half of the 1990s do not exist.

The inconsistency of results is due not only for cross- national but for national studies as well, as will be explained for the German case. Germany – in a way – is a typical example for countries where contradictory expectations and contradictory research findings about recent employment development trends prevail. In contrast, there are only a few countries, where not much discussion about the recent trends exists. This is true for Great Britain for instance, where the majority of studies in the last years

suggested ongoing deconcentration tendencies. Similarly to Cheshire (1995; 1999) the ongoing deconcentration of population is described by Champion (1997) as “urban exodus”. According to him “urban deconcentration is the most dominant and consistent feature of population movement in Britain nowadays” (ibid., 77). As the work of Gillespie (1999) and of Turok and Edge (1999) show, this is not only the case for population development but for employment development as well. Both studies distinguish towns and rural areas, free standing cities and conurbations and analyse the employment development from 1981 to 1996. Thus the enormous stability of the urban-rural employment shift is shown.

In contrast, the topic is discussed rather controversially in Germany - especially concerning counterurbanisation. Concerning urban sprawl or suburbanisation the studies correspond to a large extent. Suburbanisation is and has been the major trend of spatial structural changes in Germany for the last two decades (Gatzweiler/ Schliebe, 1982; Bucher/ Kocks, 1987; Bade, 1987; Seitz, 1996; Bade et al., 2003). In the case of counterurbanisation authors as Uebe (1967), Thoss (1977), Peschel (1983), Bade (1997), Bade and Niebuhr (1999) or Bade et al. (2003) stress and prove the enormous stability of the relative deconcentration of economic activities and expect an ongoing spatial deconcentration in disfavour of the agglomerations. Furthermore, Bade and Niebuhr argue that the disurbanisation is not only due to a spatial extension of suburbanisation tendencies as, first, some of the most dynamic regions are too far away from the agglomerations and, second, many regions closer to the agglomerations show slower growth rates than the remoter ones. On the other hand, authors as Klemmer (1996), Stahl (1997), Irmen and Blach (1997) express severe doubt about the economic development perspectives of rural regions arguing that the economic conditions have changed significantly in disfavour of the rural regions. Similarly, Geppert and Gorning (2003) are seeing evidence for an emergence of re-urbanisation tendencies. According to them the agglomerations benefit especially from the increase in importance of business services. To cut a long story short, not only international studies come to different results or are hardly comparable due to methodological restrictions but also national studies – where data should be similar and definitions are less controversial – come to contradictory research findings.

This inconsistency regarding the dominant trends of spatial structural changes – regardless if in cross national or in national studies – is often due to methodological problems. In the international case those problems are obvious – as it is usually even difficult, to get similar data for the same period of time for different states. Moreover, comparing results of different national studies is almost impossible as – on top of the data problem – different classifications of rural and urban have a major influence on the results. But this is also true for national studies as the German case made clear. All mentioned studies prove their results by empirical findings. Their contradictory results are – again – a result of different data bases used and different time periods analysed.

Against this background, the aim of the following analysis is to shed some light to the question which trends are the major trends regarding the development of population and jobs in the EU 15 states. As no information is available about the development trends in the 1990s and especially the late 1990s our empirical work will focus on that period of time. Furthermore, we'll develop a similar classification of rural, less congested, suburban and rural regions for all member states (see below) and use data covering the same period of time in all EU 15 member states.

## **4 A proposal for delineating urban, suburban, less condensed and rural areas**

Definitions of urban, suburban and rural areas vary from country to country. Most European studies on re-, sub- or counterurbanisation are therefore hardly comparable as mentioned above. Especially the parting line between suburban areas and peripheral rural areas is difficult to draw, as no common definition of 'metropolitan areas' or 'rural areas' exists so far (Shucksmith et al. 2001). In principle, it is possible to distinguish between regional classifications based on either functional or homogeneity criteria. While the first take into consideration relations such as commuting flows or shopping and recreational behaviour, the latter depart from structural socio-economic variables and delineate homogeneous 'urban' or 'rural' areas.

In the study presented in this paper, we seek to answer the question whether the recent development trends in Western Europe can be classified as re-, sub- or counterurbanisation processes. We are therefore looking for a classification that, on the one hand, allows for the differentiation between urban, suburban and rural-peripheral areas, and on the other hand can easily be transferred to the context of the 15 EU member states. Undoubtedly, the best approach would consist in a functional delineation of all major urban areas and an additional sub-categorisation of the remaining non-urban areas in accordance to their distance to the next conurbations. However, such an approach would require fine-grained data on urban-rural relations, which are hardly available so far. They will hopefully soon be provided by the ongoing ESPON researches on the respective issues (see [www.espon.lu](http://www.espon.lu)). Instead, we adopt a rather rough fourfold classification based on *homogeneity* criteria, namely the population density and the settlement structure. This approach is in line with the definitions of urban and rural areas used by the OECD (Meyer 1996), Eurostat and the German Federal Planning Office BBR (BfLR 1996). All of them depart from the average population density as main indicator of rurality or 'urbanity':

- The OECD classification distinguishes between urbanised areas, intermediate areas and rural areas. A region is classified as urban if less than 15% of its inhabitants live in rural municipalities. A rural municipality in turn is characterised by a population density of less than 150 inhabitants

per skm. In contrast, a region is classified as rural if more than 50% of its inhabitants live in rural (sparsely populated) municipalities (see Meyer 1996).

- The Eurostat classification of densely populated, intermediate and sparsely populated areas is based on the following principles: “Densely populated areas are defined as groups of contiguous municipalities, each with a population density greater than 500 inhabitants per square km, and a total population for the area of more than 50,000; intermediate areas are defined as groups of municipalities, each with a population density greater than 100 inhabitants per square km, but not belonging to a densely populated area. The area’s total population must be at least 50,000 or the area must be adjacent to a densely populated one (...). All the remaining areas are classified as sparsely populated.” (Website inforegio)
- According to the German BBR, a region is classified as ‘agglomeration’ if its population density exceeds 300 inhabitants per skm and / or if it includes a city with more than 300,000 inhabitants. ‘Urbanised areas’ display population densities between 150 and 300 inhabitants per skm, and/or dispose of a center with more than 100,000 inhabitants. In the latter case, regions are considered as ‘urbanised’ even if the population densities are about 100 inhabitants per skm. Accordingly, ‘rural areas’ are marked by less than 150 inhabitants per skm, and do not include a city with more than 100,000 inhabitants, unless the total population density is below 100 inhabitants per skm.

The definition of the BBR seems to be most idoneous for our purpose, as it does not only consider the population density, but also includes information on the settlement structure. In this way, Shucksmith’s critique that “the use of population density in defining rural areas is problematic, since densities which might be appropriate to England or France (eg. below 100 or 150 inh./km<sup>2</sup> for rural regions) include even most of the larger towns, and even cities, in sparsely populated countries like Finland and Sweden” (Shucksmith et al. 2001, p. 10) can, at least partly, be defeated. The application and adaptation of the BBR criteria to the 1,089 European NUTS 3 regions occurred through the following steps: To start, all NUTS 3 regions containing a city of more than 400,000 inhabitants and disposing of more than 300 inhabitants per square kilometre were classified as ‘urban centres’. Subsequently, all NUTS 3 lying within a 50 kilometres buffer around the urban centres were collated to the class of ‘suburban areas’. The remaining areas were divided into two groups: First, NUTS 3 regions with a population density of more than 150 inhabitants per square km and/or disposing of a centre with more than 100,000 inhabitants were collated to a category called ‘less condensed areas’. This intermediate class mainly includes smaller agglomerations (e.g. Bologna, Porto, Toulouse), medium-sized cities and their environs. Second, the residual NUTS 3 regions were considered as ‘rural areas’.

As the delineation of European NUTS 3 regions only partly reflects functional relations, a clear integration into one of the four categories was not always possible. In those countries with relatively

large NUTS 3 regions (Spain, Italy, Sweden, Finland), some of the larger cities do not fall within the class of 'urban centres', as the region's population density lies beneath the required threshold of 300 inhabitants per square kilometre. This is true for the cities of Zaragoza, Sevilla, Malaga and Valencia (Spain), Helsinki (Finland), Stockholm and Göteborg (Sweden), Palermo (Italy) and Thessaloniki (Greece). However, their exclusion from the class of 'urban centres' is justified in so far as in all cases not only the centre, but also a good portion of the respective suburban hinterland is included within *one* regional unit. If these regions were collated to the class of urban centres, it would be unfeasible to distinguish between re- and suburbanisation trends any longer. Therefore, with the exception of the two capitals Stockholm and Helsinki, the quoted regions were integrated into the class of 'less condensed areas', as required by a strict application of our classification rules.

Another type of classification problem arises in those countries where the regional units are particularly small-cut. Here, only the (small) central municipality is classified as 'urban centre'. The adjacent regions automatically fall within the group of suburban areas, despite their character of central area. In order to remedy, we introduced an additional rule of delineation for the countries of Germany, Netherlands, Belgium and France. Here, also those NUTS 3 regions which directly border upon major urban centres and have more than 600 inhabitants per square km were classified as 'urban centres'. The results of this procedure can be exemplified by the case of the Rhine-Ruhr-area: According to the general delineation rules, only Cologne, Düsseldorf, Essen and Dortmund would enter the class of 'urban centres'. After applying the additional rule (600 inhabitants per skm in adjacent counties), also minor centres such as Bochum, Castrop-Rauxel or Mühlheim which clearly belong to the overall agglomeration are included into the group of urban centres. Similar improvements of the classification are obtained in the cases of Paris and the Dutch Randstad.

A final adaptation was undertaken for better distinguishing between 'less condensed' and 'rural' areas in Germany. This country is marked by the smallest average size of NUTS3 regions in the EU. Accordingly, a simple application of our parting line between less condensed and rural areas (150 inhabitants per square kilometre and / or existence of a city with more than 100,000 inhabitants) would lead to a disproportionate share of 'rural areas', as also sparsely populated regions in direct proximity of larger cities would be classified as rural. Therefore, the distinction between both regional types was carried out at the level of planning regions (97 units) instead of NUTS 3 regions (441 units).

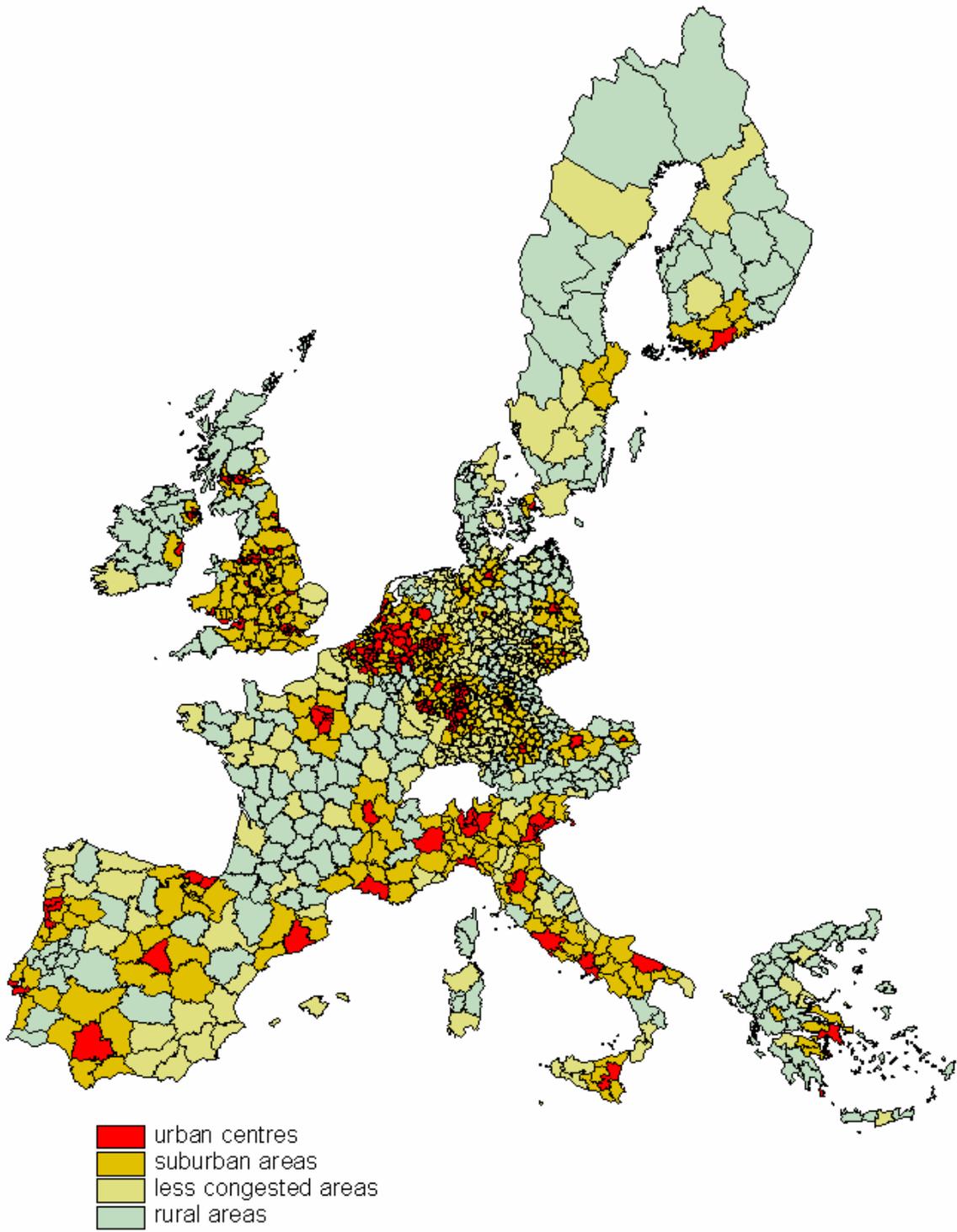
The results of the described classification procedure are displayed in table 2. According to the rules set by the authors, about 3 % of the EU's surface and one fourth of its population live in larger urban centres. Another 20 % of the surface is covered by 'suburban areas', containing nearly 30 % of the EU's population. The category of less condensed areas comprises about 30% of both the EU's surface and the population. Finally, nearly one half of the territory is covered by rural areas, while only about 15 % of the total population reside in this part of the EU. The shares of the respective regional types

correspond more or less to the ones obtained via the classification method of the OECD, according to which the relatively rural regions and the essentially urban ones represent 31% and 52% of the population and 34% and 16% of territory respectively (see NEWRUR 2001).

**Figure 2: Classification of types of regions**

	<i>no. of regions</i>	<i>surface (km<sup>2</sup>)</i>	<i>surface %</i>	<i>population</i>	<i>population %</i>	<i>inh./km<sup>2</sup></i>
<i>urban centers</i>	106	93022	2,9	91140	24,3	980
<i>suburban areas</i>	378	624926	19,8	105677	28,2	169
<i>less condensed areas</i>	312	977865	31,0	123710	33,0	127
<i>rural areas</i>	293	1458312	46,2	54712	14,6	38
<i>EU 15</i>	1089	3154124	100	375239	100	119

In figure 1, the results of the proposed classification are displayed cartographically. The distribution of urban centres, suburban areas, less condensed areas and rural areas corresponds more or less to the expectations. While most of the sparsely populated countries at the periphery of the EU have only one major urban centre (Sweden, Finland, Denmark, Ireland, Spain, Greece, Portugal), the more central and more densely populated countries dispose of at least two to three larger conurbations (Netherlands, Belgium, Austria, France, Great Britain, Spain). The highest number of urban conurbations is found in the polycentric countries of Italy and Germany.



*Figure 1: Classification of urban, suburban, less congested and rural areas (NUTS 3 regions)*

# 5 Western-European trends in population and employment development in the 1990s

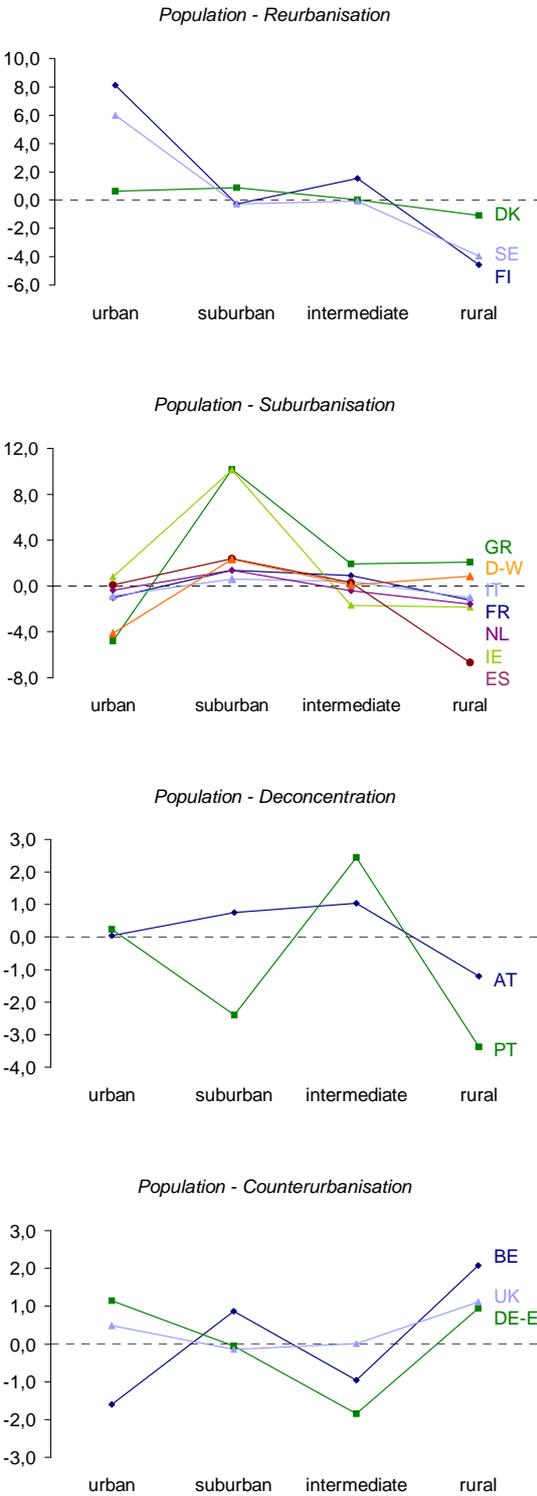


Figure 2: Population development 1991-1999 standardized by national average  
 Source: own calculations, data: BBR 2002

Using the classification defined above, the recent trends in employment and population development are compared for the central, suburban, less condensed and rural areas of the 15 EU member states. The time period covered by the empirical work is 1991 to 1999 in the case of population changes and 1995 to 2000 in the case of the employment development. As national peculiarities complicate the cross national comparison, the change rates of population and jobs are standardized by the national change rates.

### Population

The spatial distribution of 1990s' population variations is displayed in figure 2. A first observation deducible from the diagrams is that the recent population development in Europe is not marked by a single tendency: While some countries seem to experience a centralisation of population, in others the deconcentrating forces prevail. In detail, the following results arise: *Reurbanisation* trends are perceivable in the three Nordic countries Finland, Sweden and Denmark. Here, the capital regions experience the largest increases in population, while the shares of rural areas decrease. In contrast, distinct *suburbanisation* processes occur in four of the central European states (France, Italy, the Western German Länder, Netherlands) as well as in three of the more peripheral member states (Ireland, Greece, Spain). Most accentuated are the suburbanisation tendencies in Greece and Ireland where the suburban fringe increased its share in the national population by 10 percent in less than a

decade. In five out of seven countries, the observed suburbanisation tendencies take place at the expense of both the urban centres and the less condensed and rural areas. Contrary, in Greece and West-Germany not only the suburban areas, but also the rural ones increase their share in population. This constellation could be described as general tendency towards population decentralisation.

Large scale relative *deconcentration* processes are found in Austria, Portugal, Belgium, UK and – to some extent – within the New German Länder. In Austria and Portugal, the relative population decreases of the capital areas are mainly due to the fast growth of the countries' minor urban centres (Innsbruck, Klagenfurth, Porto). In both states, the share of rural areas in population is decreasing. In contrast, in Belgium, UK and the New German Länder rural areas are among those regions with the highest relative gains in population – an obvious sign of *counterurbanisation*. Interestingly, however, both in UK and in the New German Länder not only the peripheral rural areas, but also the urban centres perform largely better than the national average. This constellation could be described as parallel re- and counterurbanisation processes.

### *Employment*

In figure 2 the employment development for the time period from 1995-2000 is displayed for those states of the EU15 where data were available. These are Austria, Belgium, Denmark, France, Italy, Ireland, the Netherlands, Spain, Sweden, the United Kingdom and West Germany. Similarly to the population development the employment changes are highly heterogeneous in the countries considered. While there are countries marked by concentration tendencies, others experience a relative deconcentration of jobs. The group of countries showing *urbanisation* tendencies consists, again, of Sweden and Denmark, plus Italy. In the case of Sweden and Denmark the core periphery decline is even more distinct in employment than in population changes; the more remote a place the worse its economic performance. In Italy the differences between the types of regions are again very small, but undoubtedly the urban centres perform best in terms of job creation.

A second group of countries shows an above average growth of employment in the *suburban* fringe of the agglomerations; among them the Ireland, Belgium and Spain. Whereas in Ireland and Spain the patterns of employment development are pretty much the same as the patterns of population development, the situation in Belgium demands some attention. In comparison to the population development, where the counterurbanisation trend prevailed, in the case of employment development, slight suburbanisation tendencies are observable. Apparently, in this country the jobs tend to concentrate within the suburban fringe, while residential preferences lead to a parallel population growth in more rural areas.

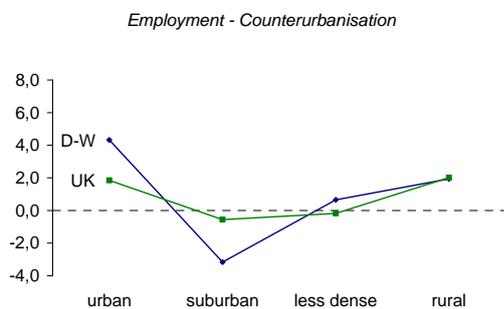
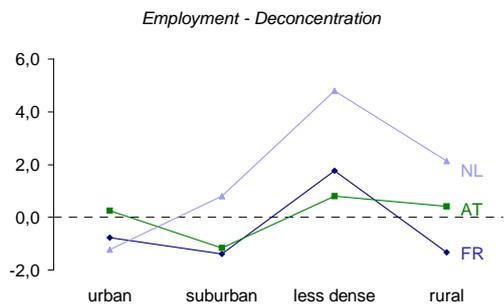
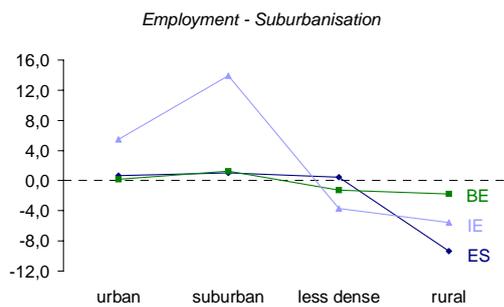
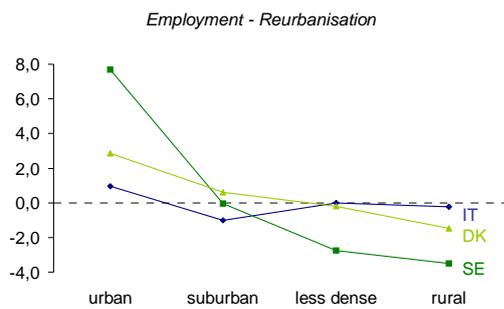


Figure 2: Employment development 1995-2000 standardized by national average source: own calculations, data: BBR 2002

The Netherlands, Austria and France are summarized in the group of counties with an above average growth in the *congested regions*. Thereby, the Netherlands and Austria also show an above average growth of employment in rural areas and – in the best – an average growth in the agglomerations causing a general decentralisation of employment in disfavour of the agglomerations. In contrast, in France the decentralisation of employment is mainly restricted to the ‘less condensed areas’, while the rural areas’ share of employment significantly decreases. Finally, two countries – UK and West Germany – can best be described as experiencing parallel tendencies of re- and counterurbanisation in employment. On the one hand, in both cases the large urban centres increase their share in employment over the considered timespan, while the areas comprised in the suburban ring relatively decrease. On the other hand, in both countries also the rural areas develop distinctly better than the national average, at the expense of suburban and less condensed areas.

#### Comparing population and employment trends

As expected, in most of the observed countries there are clear parallels between the spatial variations in employment and population. The Nordic countries – namely Sweden and Denmark – are stamped by reurbanisation tendencies with regard to economic activities as well as population. Ireland and Spain experience suburbanisation of both jobs and population, while in UK the major urban centres and the rural areas increase their share in employment as well as in population. Interestingly enough, however, in some other EU countries the spatial distribution of relative changes in jobs and residents only partly concur. A striking example is West

Germany, where a deconcentration of population is reflected by a concentration of employment in the urban centres. Other examples are France or the Netherlands where a suburbanisation of population goes in hand with an above average increase of employment in the less congested regions.

## 6 Convergence or divergence?

The illustration of the 1990s variations in employment and population has evidenced that the Western European countries follow different development paths. As shown above, the Nordic countries Denmark, Sweden and Finland are marked by clear tendencies of concentration. In contrast, in some of the fast growing economies of the European periphery, namely Ireland, Greece and Portugal, the highest gains in residents and jobs occur within the suburban fringes of the large cities or even in the less densely populated areas of the country. In comparison, most of the central European countries display less accentuated differences between the four region types. Here, general tendencies of deconcentration into less dense areas (Netherlands, Austria, France) or even rural areas (UK, Germany) are observable.

So far, the analysis of trends has been carried out at the national level. In the following, we seek to investigate whether – at a general European level – the disparities between the NUTS 3 regions rather tend to increase or to diminish. To do so, we carry out two analysis steps, by extending the analysis to the indicator of GDP-per-capita, for which long term data are available: First, we test whether in the timespan 1981-1996 the disparities between regions and region types have grown or declined. Second, we take into consideration the variations within the four region types by calculating the standard deviations in GDP-per capita over four points in time.

Figure 3 shows the evolution of GDP per capita according to regional type. The values are standardised by the European average (EU=100). Thus, the following picture emerges:

- There are stable differences in GDP per capita between the four region types over the considered timespan (1981-1996). While the GDP per capita of the large urban centres is more than one forth higher than the European average, the GDP per capita of the suburban areas corresponds more ore less to the European one. Less condensed areas lie about 10 %-points, rural areas even 15 %-points beneath the European average.
- Although the overall picture changes only moderately, slight shift can be observed: While the urban centres even increase their relative position (1981:126,6%; 1996: 129,7% of European average), the values of the suburban and the less condensed areas fall behind by 1.0 and 1.4 per cent respectively. Also the rural areas' GDP per capita fall's behind during the 1980s (1981: 84.1; 1991: 81.8), but subsequently regains 2.2 percent within only five years (1991-1996).

Altogether, the observable trends can be assessed as increasing divergence between the four region types: The urban centres as wealthiest region type further deviate from the EU average, while the suburban, less condensed and rural areas slightly fall behind or stagnate. However, a remarkable exception to this rule is to be seen in the development of rural areas in the first half of the 1990s: Within only 5 years, the most disfavoured region type catches up by more than 2 percent. This corresponds to the finding of the preceding section that a number of the central European states (Germany, UK, Netherlands, Austria) is experiencing an above average growth of employment in rural areas.

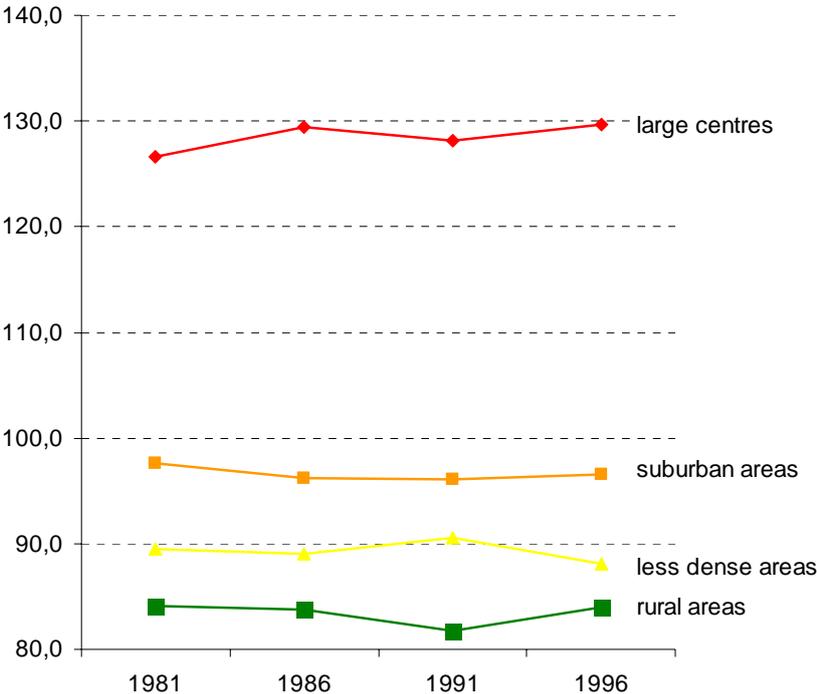
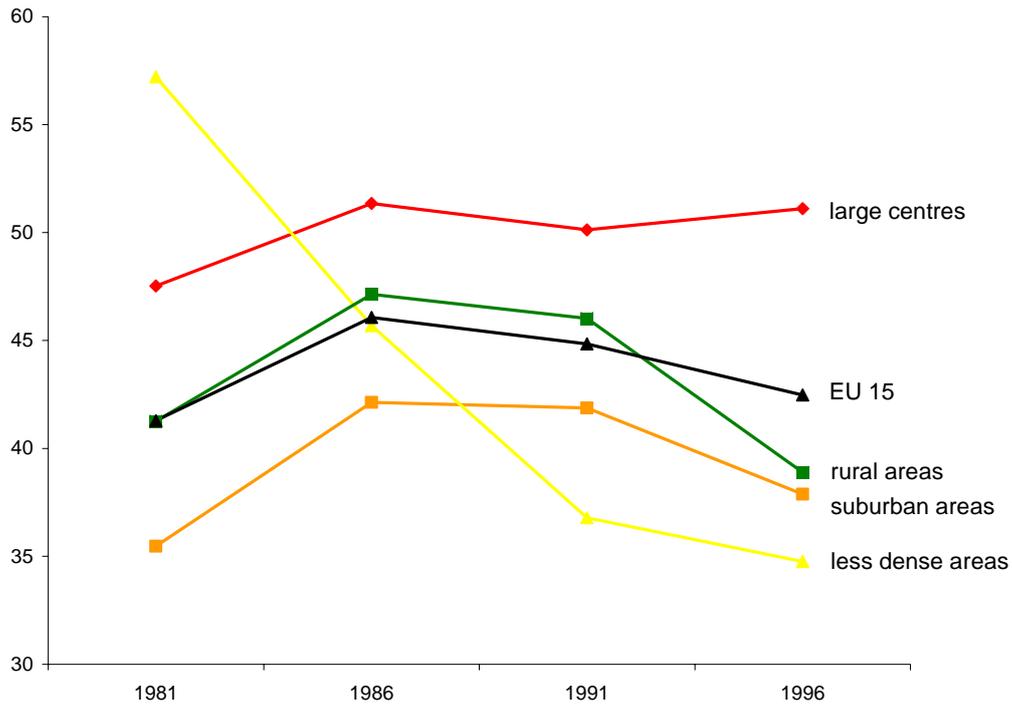


Figure 3: Development of GDP per capita and region type, standardised by the European average (EU 15 = 100)

A further step of analysis takes into consideration the development *within* the four classes of region types: Do the disparities between the large conurbations or between rural areas increase or decrease at an European level? For answering this question, we calculate the standard deviations of each region type for the four points in time taken into consideration (see figure 4).



*Figure 4: Development of the standard deviations in GDP per capita, standardized by average GDP of each region type*

An obvious outcome of this step of analysis is that, in general, there are high variations within the four classes - the standard deviation ranks from 35 to 60 percent of the respective means. This finding meets our expectations, as the four region types defined in this study comprise areas with rather different economic performance, depending on the national economy they are part of. A second finding is that the variations of GDP per capita generally increased during the first half of the 1980s, but decreased since 1986. There exist, however, two notable exceptions: First, the less condensed areas – representing the smaller agglomerations and medium-sized cities – have shown decreasing variations not only since 1986, but since 1981 already. For this region type, the variations have decreased nearly by half from 57 to 35 percent. Second, the large urban centres of the EU have experienced – as sole region type – slightly increasing disparities over the last five years (1991 -1996).

## 7 Conclusions

### *Suburbanisation, counterurbanisation, reurbanisation?*

In the introduction of this paper we raised the question whether the Western European regions are currently experiencing a phase of concentration or deconcentration with regard to population and employment development. More in detail, we were interested to know whether the current trends could be classified as re-, sub- or counterurbanisation processes. To start, we proposed a fourfold classification of urban, suburban, less condensed and rural areas, defined on the basis of indicators on population density and settlement structure. In applying this classification to the reality of the 1,089 European NUTS 3 regions we found out that in a number of countries there are clear tendencies of concentration. In Finland, Denmark and Sweden, population and employment have grown faster in the respective capitals than in all other parts of the country – a trend which we interpreted as reurbanisation. In contrast, in some of the most dynamically evolving states of the Western and Southern European periphery tendencies towards suburbanisation (Ireland, Greece, Spain) or a deconcentration in favour of smaller agglomerations and less condensed areas (Portugal) could be stated. Similarly, in most of the central European states both population and employment are undergoing some forms of deconcentration. Undoubtedly, population suburbanisation is still a major trend in central Europe: In the 1990s, the suburban fringes of the large agglomerations increased their share in population in West-Germany, Italy, France and the Netherlands by up to 2.3 percent. Interestingly, the highest growth in employment did yet not occur within this region type, but rather in the less condensed areas (France, Netherlands, Austria) or even in rural areas (UK, West-Germany). While the growth of ‘less condensed areas’ can be interpreted as large-scale redistribution of economic activities from the large agglomerations to smaller conurbations and medium-sized cities (100,000-400,000 inh.), the above-average performance of rural areas in UK and Germany represents a clear form of counterurbanisation. However, both UK and Germany do not only experience a growth of peripheral rural areas (counterurbanisation), but, at the same time, an above-average development of the urban centres (reurbanisation). Departing from van den Berg’s (1982) model of town development, these two old industrialised countries are apparently passing from the counterurbanisation to the reurbanisation phase in recent years.

### *Convergence or divergence?*

The cross-national comparisons in employment and population changes evidenced that no general trend towards convergence or divergence emerges from the recent shifts in the Western Europe geography of jobs and residents. While the rural areas’ share in population and employment further recedes in countries such as France, Spain, Denmark and Sweden, it develops above-average in UK and Germany. In order to be able to draw some general conclusions, we therefore aggregated the national values to European classes per region types and extended the analysis to the indicator of GDP-per capita (section 6). Here, a main finding was that the *average GDP-per capita* of urban

centres, suburban, less condensed and rural areas slightly deviated from each other in the years 1981-1996: While urban centres improved their relative position, the other region types stagnated or fell moderately behind. It could be proved, however, that the *standard deviation within the four region types* significantly decreased since 1986, with the exception of the large urban centres.

### *Policy implications*

In this paper, we concentrated on the description of demographic and economic trends, but largely left out the analysis of the driving forces underlying the shifts in the distribution of economic activities and population. Therefore, we can only highlight some possible policy implications by interpreting the main outcomes of our analysis. In the beginning, we posed the question whether regional policies shall concentrate on urban or rural areas. This question must be answered in opposite ways, depending on the national perspective. In the Nordic countries as well as in Ireland, France, Spain and Portugal, rural areas still belong to the group of disadvantaged regions. In these countries, also in the 1990s rural areas suffered from a redistribution of economic activities and residents in favour of more densely settled regions and cities. In contrast, in UK, West-Germany, Austria and the Netherlands rural areas increased their share in national employment.

A second field of policy implications refers to the disciplines of spatial planning and transport planning. As highlighted in section 5, in some of the central European countries the redistribution of economic activities and population leads to the formation of new imbalances. In Italy and West-Germany, we observed a partial reurbanisation of jobs and – in parallel – a suburbanisation of population. In France and the Netherlands, job growth is highest in less condensed areas, while the population still tends to concentrate in the suburban rings of the countries' largest cities. Finally, in Belgium people increasingly choose rural areas as places of residence, while economic activities grow fastest in the suburban ring of Brussels. In all cases, a new division of tasks and new commuting patterns between urban, suburban, less condensed and rural areas arise. They are necessarily linked to a growing demand for movements of persons and commodities, which counteracts the EU's objectives to pursue courses of sustainability. Further research is needed to find out which spatial planning instruments, taxes and financial incentives are required to promote the proximity of places of work and places of residence.

## References

- Bade, F.-J. (1987): Regionale Beschäftigungsentwicklung und produktionsorientierte Dienstleistungen. Berlin (Deutsches Institut für Wirtschaftsforschung, Sonderheft 143)
- Bade, F.-J. (1997): Zu den wirtschaftlichen Chancen und Risiken der ländlichen Räume. Dortmund. In: Raumforschung und Raumordnung, H. 4-5, pp. 247-259)
- Bade, F.-J.; Niebuhr, A. (1998): Zur Stabilität des räumlichen Strukturwandels. In: Jahrbuch für Regionalwissenschaften, Vol. 19, pp. 131-156.
- Bade, F.-J.; Kiehl, M.; Mikeleit, T.; Papanikolaou, G. (2003): Wirtschaftliche Aussichten der Regionen Deutschlands - Schrumpfende und wachsende Regionen; In: vhw Forum Wohneigentum. Zeitschrift für Wohneigentum in der Stadtentwicklung und Immobilienwirtschaft, H. 3, pp. 116-120.
- Bucher, H.; Kocks, M. (1987): Die Suburbanisierung in der ersten Hälfte der 80er Jahre. In: Informationen zur Raumentwicklung, H. 11/12 1987, pp. 689-707
- Champion, T. (1997): The facts about the urban exodus; In: Town & Country Planning, March, pp. 77-79
- Champion, T.; Monnesland, J.; Vandermotten, C. (1996): The New Regional Map of Europe; In: Progress in Planning, Vol. 46
- Cheshire, P. (1995): A New Phase of Urban Development in Western Europe? The Evidence for the 1980s; In: Urban Studies, Vol. 32, No. 7, pp. 1045-1063
- Fothergill, S.; Gudgin, G. (1983): Unequal Growth. Urban and Regional Employment Change in the U.K., Heinemann, London
- Gatzweiler, H.-P.; Schliebe, K. (1982): Suburbanisierung von Bevölkerung und Arbeitsplätzen - Stillstand? In: Informationen zur Raumentwicklung, H. 11/12, pp.883-913
- Geppert, K.; Gorning, M. (2003): Die Renaissance der großen Städte – und die Chancen Berlins; In: DIW Wochenbericht, H. 26, pp. 1-8
- Gillespie, A. (1999): The changing employment geography in Britain; In: Breheny, M. (ed.): The people: Where will they work?, Town and Country Planning Association, London
- Irmen, E.; Blach, A. (1997): Typen ländlicher Entwicklung in Deutschland und Europa; In: Informationen zur Raumentwicklung, H. 11/12, pp. 713-728
- Istel, W. (1982): Wider die unspezifizierte These von der wachsenden räumlichen Konzentration?; In: RuR, H. 5-6, pp. 234-237
- Kiehl, M.; Panebianco, S. (2002a): The urban-rural employment shift in Western Europe. An empirical analysis of the employment development in Britain, Germany and Italy; Paper presented at the 42nd Congress of the European Regional Science Association (ERSA), Dortmund, 27-31 August 2002
- Kiehl, M.; Panebianco, S. (2002b): Counterurbanization in Westeuropa. Eine empirische Analyse der Beschäftigungsentwicklung ländlich-peripherer Regionen in Deutschland, Großbritannien und Italien. In: Seminarbericht 45, Gesellschaft für Regionalforschung, S. 1-23

- Klemmer, P. (1996): Entwicklungsrisiken ländlicher Räume; In: Jenkis, H. W. (ed.): Raumordnung und Raumordnungspolitik, München, pp. 450-480
- Kontuly, T. (1998): Contrasting the counterurbanisation experience in European nations; In: Boyle, P.; Halfacree, K. (ed.): Migration Into Rural Areas, John Wiley & Sons, Chichester
- Müller, J.H.; Schäffer, B. (1981): Wider die unspezifizierte These von der wachsenden räumlichen Konzentration; In: RuR, H. 5-6, pp. 263-268
- Müller, J.H.; Schäffer, B. (1983): Wider die unspezifizierte These von der wachsenden räumlichen Konzentration; In: RuR, H. 3, pp. 116-117
- Peschel, K. (1983): Der strukturelle Wandel der Industrie in den Regionen der Bundesrepublik 1960 bis 1976. In: Müller, J.H. (Hrsg.), Determinanten der räumlichen Entwicklung, Schriften des Vereins für Socialpolitik, N.F., Bd. 131, pp. 125-172
- Seitz, H. (1996): Die Suburbanisierung der Beschäftigung: Eine empirische Untersuchung für Westdeutschland In: Jahrbuch für Nationalökonomie und Statistik, Bd. 215, pp. 69-91
- Stahl, K. (1997): Divergenz und Konvergenz der regionalen Wirtschaftsentwicklung aus der Sicht der Raumwirtschaftstheorie; In: Zeitschrift für Wirtschafts- und Sozialwissenschaften, Vol. 117, pp. 53-72
- Thoss, R. (1977): Die räumliche Konzentration in den Ländern der Europäischen Gemeinschaft. Kommission der Europäischen Gemeinschaften. Reihe Regionalpolitik 4, Brüssel
- Turok, I.; Edge, N. (1999): The jobs gap in Britain's cities. Employment loss and labour market consequences, Policy Press, Bristol
- Uebe, W. (1967): Industriestruktur und Standort. Regionale Wachstumsunterschiede der Industriebeschäftigten in der BRD 1950-1963, Stuttgart