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COMPARATIVE ANALYSIS OF LEADING AND LAGGING RURAL REGIONS
IN OECD COUNTRIES IN THE 1980S AND 1990S

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ABSTRACT

In this paper leading and lagging regions in OECD countries in the 1990s are identified, and a comparative analysis is made of leading and lagging regions in the 1990s with those in the 1980s. The labels 'leading' and 'lagging' are derived from total employment growth. In almost all studied countries, employment growth in the leading predominantly rural and intermediate rural regions in the 1990s tended to exceed that in predominantly urban regions. On the whole, it appeared that about 60% of all leading regions in the 1980s were still leading in the 1990s, and that also 60% of the lagging regions in the 1980s were lagging in the 1990s.

1 INTRODUCTION

‘In which regions does employment grow more than in other regions and what are the reasons behind such differentials in economic performance?’ are intriguing questions, often posed in economic literature. In the 1990s, rural economists applied these questions to rural regions in OECD countries (OECD, 1996; Bollman and Bryden, 1997; EC, 1997; Terluin and Post, 2000; Bryden and Hart, 2001). These studies suggested that the picture of employment growth in rural regions looks like a mosaic of winners, in-betweens and losers, and that quite a number of rural regions outperformed employment growth in urban regions. The existence of dynamic rural regions showed some evidence that the association of rural as being the scene of job and population losses, needs re-adjustment. Most of these studies analysed regional differences in employment growth during a period of about ten years, often in the 1980s. It may be wondered whether rural regions manage to sustain a high employment growth for a longer period. An affirmative answer to this question would imply that forces affecting employment growth positively can be more or less continuously at work over a longer time.

Factors associated with differentials in employment growth in rural regions refer both to tangible and less tangible factors (Bryden and Hart, 2001; Terluin, 2003). Tangible factors correspond to items emphasized in classical production functions like natural resources (land), human resources (labour), investment (capital), infrastructure (technology) and economic structure. Less tangible factors are used to denote an interactive set of attributes of local actors, like capacity, internal and external networks, entrepreneurship, work ethics, regional identity, migration and institutions. Following the mixed exogenous/endogenous rural development approach, which takes account of the increasing globalization process, rural development can be considered as a complex mesh of networks in which resources are mobilized and in which the control of the process consists of an interplay between local and external forces (Lowe *et al.*, 1995). The current globalization process comprises economic, social, political and environmental changes like the increasing mobility of capital; a delinking of the different stages of production, which has consequences for the organization of firms; shrinking distances as a result of developments in the communications technology sector; geopolitical changes such as the end of the Cold War; and trade liberalization negotiations. The interplay between local and external forces in rural development suggests that if there are interruptions in economic performance in rural regions over a longer period, this might be due to changes in local forces and/or external forces.

For exploring whether rural regions in the OECD were able to maintain employment growth during the last two decades of the twentieth century, we focus on the following two objectives:

1. Identification of leading and lagging regions in the OECD countries in the 1990s;
2. Comparative analysis of leading and lagging regions in the 1990s with leading and lagging regions in the 1980s.

Although the emphasize in this study is on rural regions, we analyse employment growth in urban regions as well. The economic performance in urban regions serves as a yardstick to assess economic dynamics in rural regions. We restrict this study to a

statistical analysis and disregard from an in-depth analysis of possible changes in local and external forces in rural regions.

The organization of this study is as follows. In Section 2 we discuss the methodological approach of this study. In Section 3 we focus on leading and lagging regions in the 1990s. In Section 4 we conduct a comparative analysis of leading and lagging regions in the 1990s with leading and lagging regions in the 1980s. In the final section we make some concluding remarks.

2 METHODOLOGICAL APPROACH

In this study we use the regional typology of the OECD which is based on population density at local and regional level (see Annex 1 for methodology) and distinguishes three groups of regions (OECD, 1994):

- 1 predominantly rural regions;
- 2 significantly rural (or intermediate rural) regions;
- 3 predominantly urban regions.

Leading, middle and lagging regions

Regional employment growth can be compared with several benchmarks, like the OECD average, national average and the average of the group of rural or urban regions. In this study we look at employment performance in a region relative to employment growth in the other regions of the country in the periods 1980-1990 and 1990-2000. By relating the regional growth rate to the other regions of the country, regional growth rates are corrected for differences among the absolute level of national growth rates. This correction makes sense as the national average employment growth widely varies among OECD countries. Due to our correction we try to explain that part of regional growth which is assumed not to be affected by macro-economic factors but brought about by regional factors. This procedure was also applied in previous international comparisons of regional employment growth (OECD, 1996; Esposti *et al.*, 1999).

In order to examine differences in employment growth among regions, a distinction of regions into groups with, for example, high, medium and low growth is a useful tool of analysis. In this study we use such a ranking of regions within each country as follows: the top-33% is called 'leading', the bottom-33% is labeled as 'lagging' whereas the group in-between is referred to as 'middle'. This grouping contrasts somewhat to previous studies. The OECD (1996) distinguished two groups of regions: dynamic regions with employment growth above the national average and lagging regions in which employment growth was below the national average. In the RUREMPLO project (Esposti *et al.*, 1999) three groups of regions were used: leading, average and lagging. However, the criteria for these groups differ from ours to some extent¹. In all cases, it should be reminded that thresholds are rather subjective. Moreover, it has to be emphasized that here the labels leading and lagging are only derived from employment performance, and that leading regions may be less successful with regard to other indicators like GDP per capita, GDP growth and unemployment rates.

Shift share analysis

Employment growth depends to some extent on the sectoral composition of employment. As agricultural employment tends to decrease, this has a downwards effect on total employment growth. Usually, the share of agriculture in rural regions exceeds that in urban regions. As a positive relation may be assumed between the size of the share of agriculture in total employment and the extent of its downwards effect on total employment growth, this implies that rural regions are in a disadvantageous

¹ In the RUREMPLO project, a region is considered to be 'leading' if the growth rate of non-agricultural employment was 0.5 percentage points above the national growth rate; a region is considered to be 'lagging' if the growth rate of non-agricultural employment was 0.25 percentage points below the national growth rate; the other regions are classified as 'average'.

position relative to urban regions. The same situation applies for regions with declining industrial sectors. By using shift share analysis, the impact of an unfavourable sectoral structure on employment growth can be revealed. Shift share analysis decomposes total employment growth into three components:

1. the national effect: employment growth in the region if it should increase/decrease at the same rate as the national average;
2. the structural effect: employment growth in the region if its industrial sectors should grow at the same rate as the national growth rate of these sectors;
3. territorial dynamics: a residual factor in regional employment growth, which cannot be explained by the national and the structural effect.

Data on employment at the place of work

The base for our analysis of employment growth is data on employment at the place of work, as these reflect the origin of creation of employment. However, due to lack of data or inconsistencies in the time series on employment at the place of work, we had to switch to data on employment at the place of residence in quite a number of cases (see Annex 2 for an overview of data used per country).

3 LEADING AND LAGGING REGIONS IN THE 1990S

In this section, we examine differences in employment growth between predominantly rural, intermediate rural and predominantly urban regions in the 1990s. Due to lack of data, we restrict our analysis to 14 OECD countries.

Table 3.1 Total employment growth in groups of regions in selected countries, 1990-2000 (% p.a.)

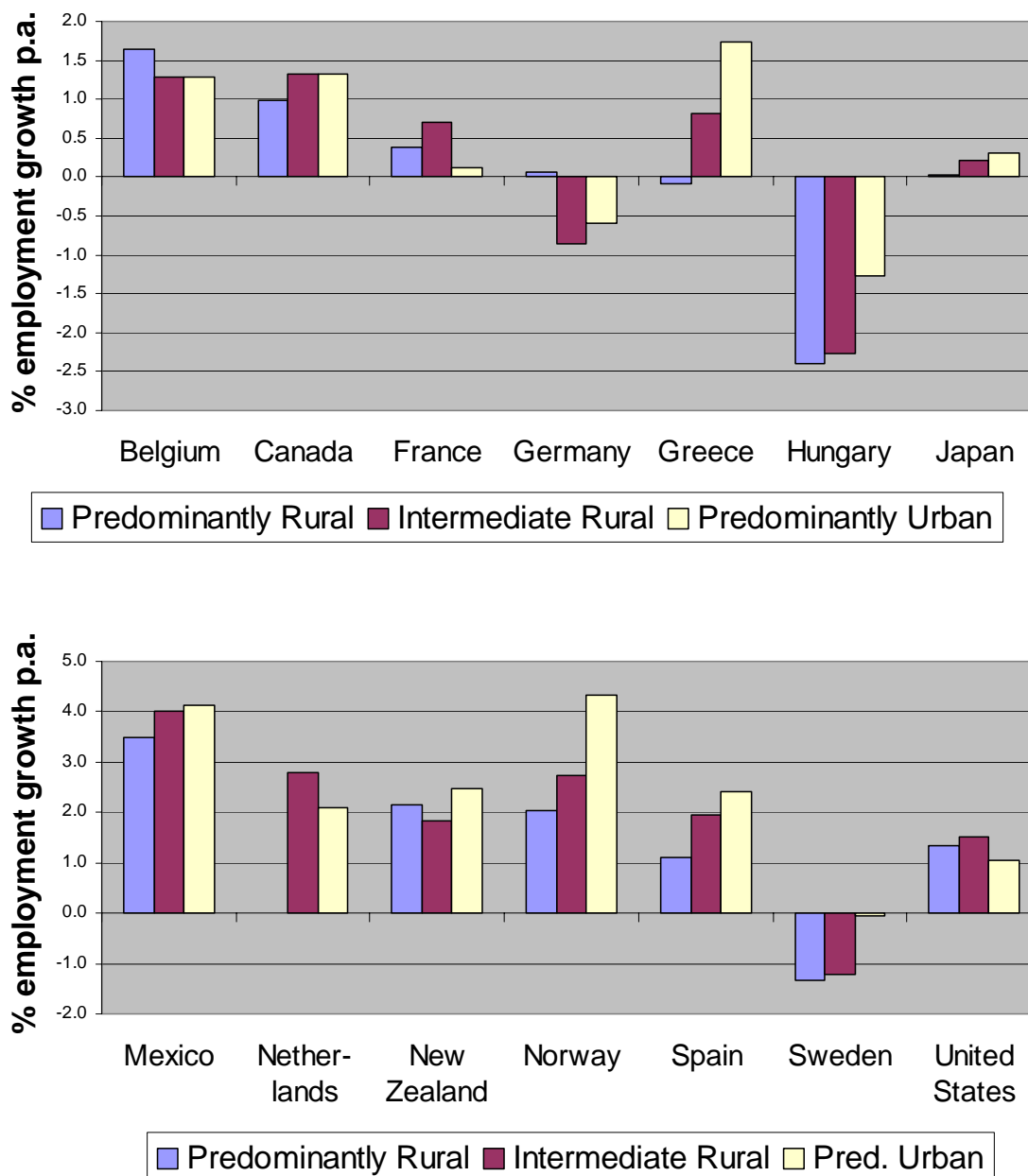
Country	predominantly rural regions			intermediate rural regions			predominantly urban regions	national average
	all	of which:		all	of which:			
		leading	lagging		leading	lagging		
Belgium	1.6	1.6	0.0	1.3	2.0	0.8	1.3	1.3
Canada	1.0	2.2	-0.5	1.3	2.5	-0.2	1.3	1.2
France	0.4	0.9	0.0	0.7	0.9	0.2	0.1	0.4
Germany	0.1	0.5	-2.5	-0.9	-0.3	-1.5	-0.6	-0.7
Greece	-0.1	1.8	-0.8	0.8	0.9	-	1.7	0.8
Hungary	-2.4	-1.5	-3.0	-2.3	-1.3	-3.5	-1.3	-2.0
Japan	0.0	0.4	-0.2	0.2	0.4	-0.1	0.3	0.2
Mexico	3.5	5.5	2.1	4.0	4.8	2.6	4.1	3.9
Netherlands	..	..	..	2.8	3.4	1.4	2.1	2.2
New Zealand	2.1	-	-	1.8	2.7	1.1	2.5	2.1
Norway	2.0	3.8	1.4	2.7	3.3	-	4.3	2.7
Spain	1.1	2.4	-0.4	2.0	3.2	0.3	2.4	2.0
Sweden	-1.3	-0.9	-1.8	-1.2	-0.6	-1.8	0.0	-1.0
United States	1.3	2.3	0.2	1.5	2.2	0.2	1.1	1.3

Source: Own calculations based on OECD Territorial Database.

Employment growth in leading rural regions often higher than in urban regions

In half of the studied countries, employment growth in the 1990s in the predominantly urban regions exceeded that in the groups of predominantly rural and intermediate rural regions (Table 3.1). In the remaining countries, either predominantly rural or intermediate rural regions showed a higher employment growth than the predominantly urban regions. When we look at employment growth rates in the leading predominantly rural and intermediate rural regions, then it appears that these are above those of the predominantly urban regions in most countries (Fig. 3.1). Only in the Scandinavian countries Norway and Sweden, employment growth rates in the leading predominantly rural and intermediate rural regions lagged behind those in the predominantly urban regions, whereas in Greece, Hungary and Spain either employment growth rates in leading predominantly rural or in leading intermediate rural regions exceeded those in urban regions.

Figure 3.1 Total employment growth in leading pr, leading intermediate rural and predominantly urban regions in selected countries, 1990-2000 (% p.a.)



Source: Own calculations based on OECD Territorial Database.

Leading rural regions characterized by high territorial dynamics

Shift share analysis of employment growth in the predominantly rural regions shows that they usually suffer from a negative structural effect (Table A3.1), which is likely to be caused by a relatively large agricultural sector, but the presence of obsolete industrial sectors may also play a role in this negative structural effect. However, in the leading predominantly rural regions, this negative structural effect is compensated by a positive value for territorial dynamics. This may be due to, for example, a high capacity of the local actors and strong networks in the region. On the other hand, the

lagging predominantly rural regions tend to have negative values for territorial dynamics, reflecting factors like lack of capacity of the local actors and weak networks. Compared to the predominantly rural regions, employment growth in intermediate rural regions is less affected by negative structural effects (Table A3.2). Probably, this may be related to the smaller share of agriculture in total employment in intermediate rural regions. With regard to territorial dynamics, leading and lagging intermediate rural regions show the same pattern as the predominantly rural regions. Finally, predominantly urban regions tend to have a positive structural effect (Table A3.3).

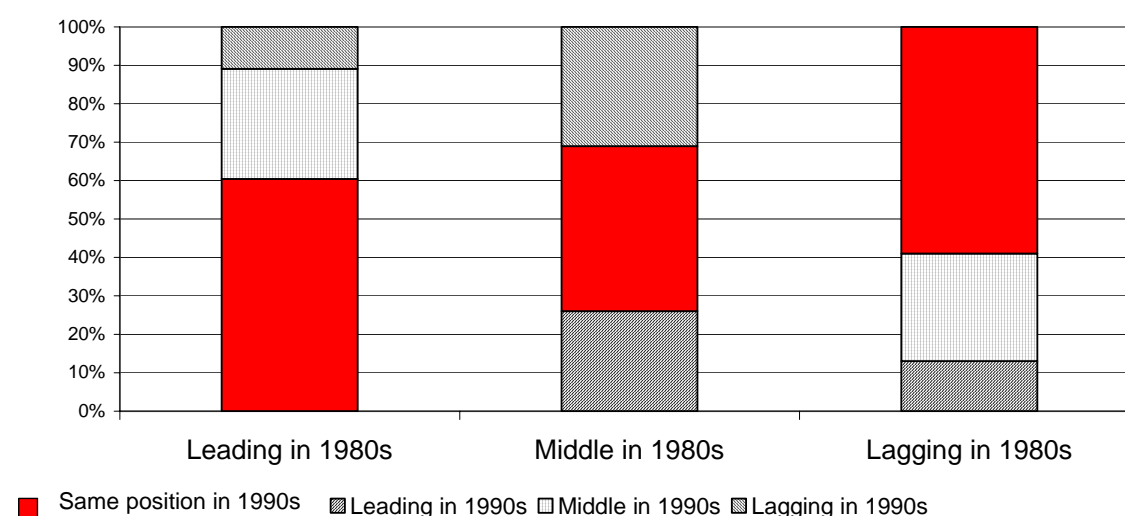
4 COMPARATIVE ANALYSIS OF LEADING AND LAGGING REGIONS IN THE 1990S WITH LEADING AND LAGGING REGIONS IN THE 1980S

In this section we analyse whether regions maintain a relatively high or low rate of employment growth over a longer period, i.e. the 1980s and 1990s. For this purpose, we firstly ranked regions in each country according to their employment growth in the 1980s in a top 1/3 group, a middle 1/3 group and a bottom 1/3 group. Then, we compared the position of regions in the 1980s with that in the 1990s. Due to lack of data, we restrict this comparison to 8 OECD countries.

High or low employment growth not always permanent

On the whole, it appeared that about 60% of all leading regions in the 1980s were still leading in the 1990s, and that also 60% of the lagging regions in the 1980s were lagging in the 1990s (Fig. 4.1). Regions in the middle 1/3 group are even less stable: about 55% experienced a shift to another position. This implies that quite a number of regions were involved in a shift in their relative position, be it in a positive or negative direction.

Figure 4.1 Distribution of all regions by dynamics of total employment growth in selected OECD countries^{a)}, 1980-2000



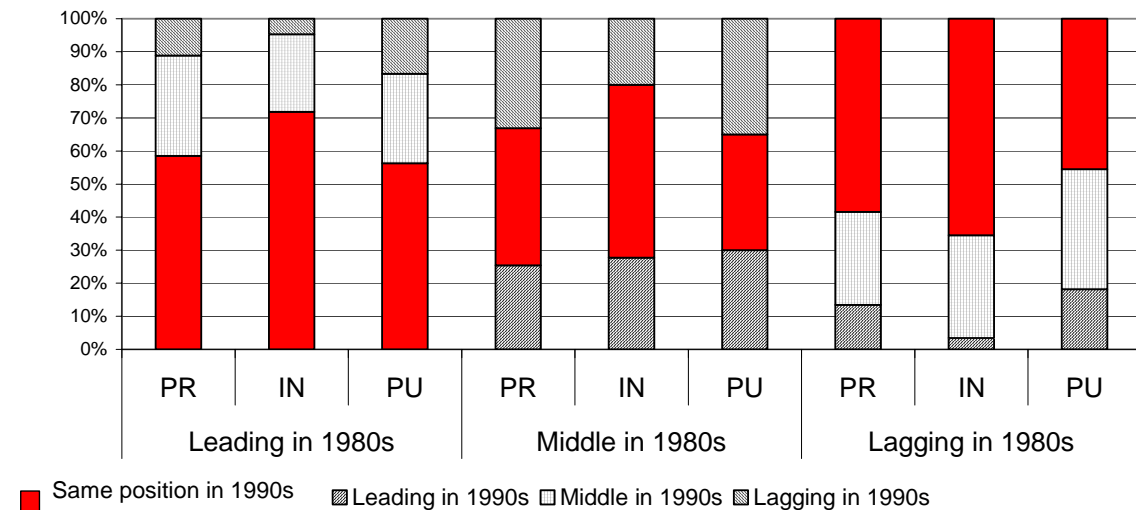
a) Belgium, Canada, France, Hungary, Japan, Netherlands, Sweden and United States.
Source: Own calculations based on OECD Territorial Database.

Dynamics in predominantly rural regions in the 1980s and 1990s

In the studied countries about 60% of the predominantly rural regions, which were leading in the 1980s, managed to maintain their leading position in the 1990s (Fig. 4.2; Table A4.1)). Most of the other leading predominantly rural regions in the 1980s became middle regions in the 1990s, while about 10% turned into lagging regions. From the predominantly rural regions, which were in the middle group in the 1980s, about 40% stayed in that group in the 1990s. From the shifting middle regions, in

most countries more regions turned into lagging relative to the ones which became leading regions in the 1990s (Fig. A4.1-8). Finally, about 60% of the lagging predominantly rural regions in the 1980s were also lagging in the 1990s, about 30% shifted to the middle group in the 1990s and about 10% became leading in the 1990s.

Figure 4.2 Distribution of pr, intermediate rural and predominantly urban regions by dynamics of total employment growth in selected OECD countries^{a)}, 1980-2000



a) Belgium, Canada, France, Hungary, Japan, Netherlands, Sweden and United States.
Source: Own calculations based on OECD Territorial Database.

Dynamics in intermediate rural regions in the 1980s and 1990s

Compared to the predominantly rural regions, intermediate regions tend to stay more often in the same position in the 1980s and 1990s: more than 70% of the leading intermediate rural regions in the 1980s were also leading in the 1990s, over half of the middle intermediate rural regions in the 1980s had the same position in the 1990s and almost two thirds of the lagging intermediate rural regions in the 1980s were lagging in the 1990s as well (Fig. A4.1-8). Moreover, shifts from a leading position in the 1980s to a lagging one in the 1990s or vice versa hardly occur.

Dynamics in predominantly urban regions in the 1980s and 1990s

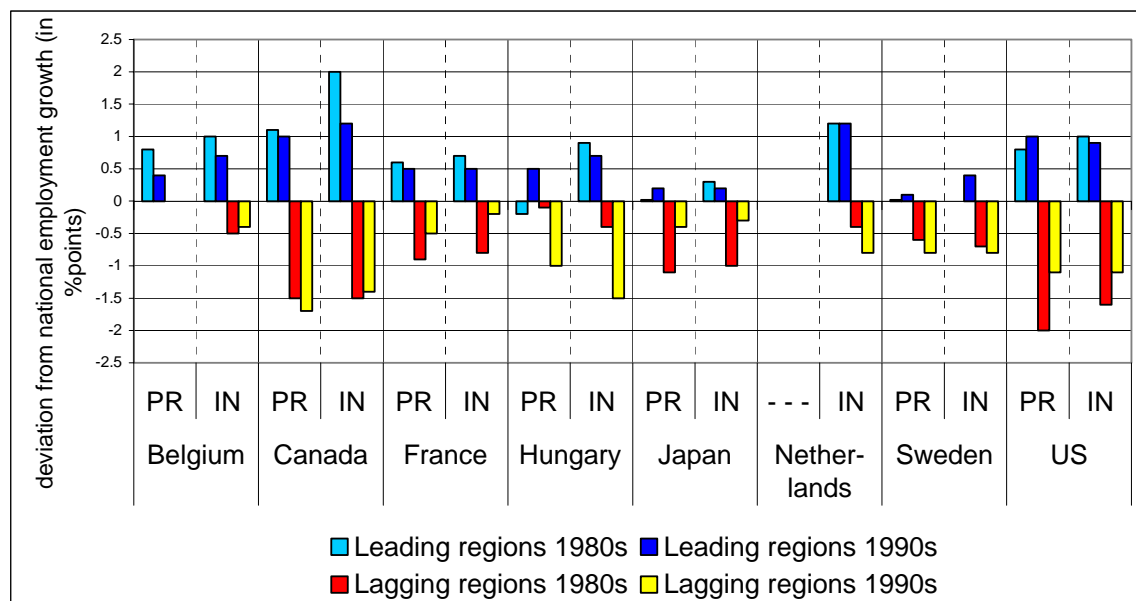
The pattern of shifts in the relative position of predominantly urban regions in the 1980s and 1990s rather varies among countries (Fig. A4.1-8): in countries like Canada, Japan and Sweden leading predominantly urban regions in the 1980s tend to stay leading in the 1990s, whereas in other countries like Belgium, France and the US, many leading predominantly urban regions in the 1980s lose their leading position in the 1990s. Apart from a few regions, lagging predominantly urban regions in the 1980s do not manage to become leading in the 1990s.

Convergence and divergence in regional employment growth in the 1980s and 1990s

In order to analyse whether employment growth rates in leading and lagging predominantly rural and intermediate rural tend to converge or diverge in the course

of time, we present the deviation of employment growth in leading and lagging regions from the national average in the 1980s and 1990s (Fig. 4.3). In Belgium and France, deviations of employment growth rates in leading and lagging regions from the national average in the 1990s are smaller than those in the 1980s, so in these countries employment growth rates seem to converge. The same applies for the deviations of employment growth rates in leading and lagging intermediate rural regions in Canada, Japan and the US. However, the deviation of employment growth rates in leading and lagging predominantly rural regions from the national average in these countries tend to be larger in the 1990s relative to the 1980s for either the leading or lagging regions. In Sweden and the Netherlands, the deviation of employment growth rates in both leading and lagging predominantly rural and intermediate rural regions from the national average tends to be larger in the 1990s than in the 1980s, so in these countries divergence in employment growth can be perceived. Finally, in Hungary no clear pattern in the deviation of employment growth in leading and lagging regions in the 1980s and 1990s from the national average can be found, which is likely to be due to the economic transition period this country experienced in the 1990s.

Figure 4.3 Deviation of employment growth in leading and lagging predominantly rural and intermediate rural regions from the national average in the 1980s and 1990s (in % points)



Source: Own calculations based on OECD Territorial Database.

5 CONCLUDING REMARKS

In this paper we identified leading and lagging predominantly rural and intermediate rural regions in OECD countries in the 1990s, and we explored whether these regions had a similar position in the 1980s. The labels 'leading' and 'lagging' were derived from total employment growth.

In almost all studied countries, employment growth in the leading predominantly rural and intermediate rural regions in the 1990s tended to exceed that in predominantly urban regions. This pattern has also been perceived in the 1980s (OECD, 1996; Terluin, 2003).

Shift share analysis in the leading predominantly rural and intermediate rural regions revealed that employment growth in the 1990s was usually composed of a negative value for the structural effect – due to a relatively large agricultural sector and/or the presence of obsolete industrial sectors – and a positive value for territorial dynamics. This suggests that employment growth in the leading predominantly rural and intermediate rural regions depends to a high degree on specific local and regional factors, like capacity of the local actors, entrepreneurship, networks and participation. On the other hand, employment growth in the lagging predominantly rural and intermediate rural regions tend to be composed of both a negative value for the structural effect and territorial dynamics. This shows that lagging predominantly rural and intermediate rural regions are likely to suffer from both obsolete industrial sectors, lack of capacity of local actors and weak networks.

From the analysis of the leading or lagging position of regions in the 1980s and 1990s, it appears that about 60% of the leading predominantly rural regions in the 1980s were also leading in the 1990s. From the remaining leading predominantly rural regions in the 1980s, 30% shifted to the middle group in the 1990s and 10% became lagging in the 1990s. The lagging predominantly rural regions in the 1980s seem to follow a more or less similar pattern: 60% were also lagging in the 1990s, 30% shifted to the middle group and 10% to the leading group. Quite a number of leading and lagging intermediate rural regions in the 1980s also shifted to another position in the 1990s, although to a lesser extent than the predominantly rural regions. Moreover, leading and lagging intermediate rural regions in the 1980s hardly changed into lagging or leading in the 1990s. The shifts in the relative position of regions in the 1980s and 1990s give rise to three related comments:

- a. being leading or lagging is not always a permanent situation;
- b. some leading predominantly rural and intermediate rural regions manage to maintain a high rate of employment growth over a longer period;
- c. some lagging predominantly rural and intermediate rural regions do not manage to overcome a situation of employment stagnation over a longer period.

The deviation of employment growth rates of leading and lagging predominantly rural and intermediate rural regions from the national average in the 1980s and 1990s showed a decrease in the course of time in some studied countries and an increase in others. So some countries experience convergence of regional employment growth rates, where other countries face a divergence of regional employment growth rates.

REFERENCES

- Bollman, R. and J.M. Bryden (eds.) (1997)
Rural employment; An international perspective; Wallingford, CAB International
- Bryden, J.M. and K. Hart (2001)
Dynamics of rural areas (DORA); International comparison; Aberdeen, Arkleton
- Esposti, R., F.E. Godeschalk, T. Kuhmonen, J.H. Post, F. Sotte and I.J. Terluin (1999)
Employment growth in rural regions of the EU; A quantitative analysis for the period 1980-1995; The Hague, LEI-DLO
- European Commission (EC) (1997)
Rural developments: situation and outlook; Brussels, CAP 2000 Working Document
- Lowe, P., J. Murdoch and N. Ward (1995)
Networks in rural development beyond exogenous and endogenous models; In: J.D. van der Ploeg and G. van Dijk (eds.), Beyond modernisation; The impact of endogenous rural development; Assen, Van Gorcum, p. 87-105
- OECD (1994)
Creating rural indicators for shaping territorial policy; Paris
- OECD (1996)
Territorial indicators of employment; Focusing on rural development; Paris
- Terluin, I.J. (2003)
Differences in economic development in rural regions of advanced countries: an overview and critical analysis of theories; Journal of Rural Studies 19-3, pp. 327-344
- Terluin, I.J. and J.H. Post (eds.) (2000)
Employment dynamics in rural Europe; Wallingford, Oxon, CABI Publishing

ANNEX 1 TERRITORIAL SCHEME OF THE OECD

In the scope of the Project on Rural Indicators, the OECD has made a typology of rural regions, which covers its whole territory (OECD, 1994). The typology consists of three types of regions, derived on population density:

- 1 predominantly rural regions;
- 2 significantly rural (or: intermediate) regions;
- 3 predominantly urban regions.

The typology is based on a territorial scheme of two hierarchical levels: the local community level and the regional level. Local communities are basic administrative units with a very detailed grid, like cantons in France, districts in the UK and municipalities in the Netherlands. Regions are larger administrative units or functional zones with a less detailed grid, like aemter in Denmark, provincias in Spain and provinces in Belgium and the Netherlands. When population density in local communities is less than 150 inhabitants per square kilometre, the community is classified as 'rural'; when population exceeds 150 inhabitants per square kilometre as 'urban'². As a second step, regions are divided into three groups (Fig. A1):

- when more than 50% of the population of the region lives in rural local communities, the region is classified as 'predominantly rural';
- when between 15 and 50% of the population of the region lives in rural local communities, the region is classified as 'significantly rural' or 'intermediate'³;
- and when less than 15% of the population of the region lives in rural local communities, the region is classified as 'predominantly urban'.

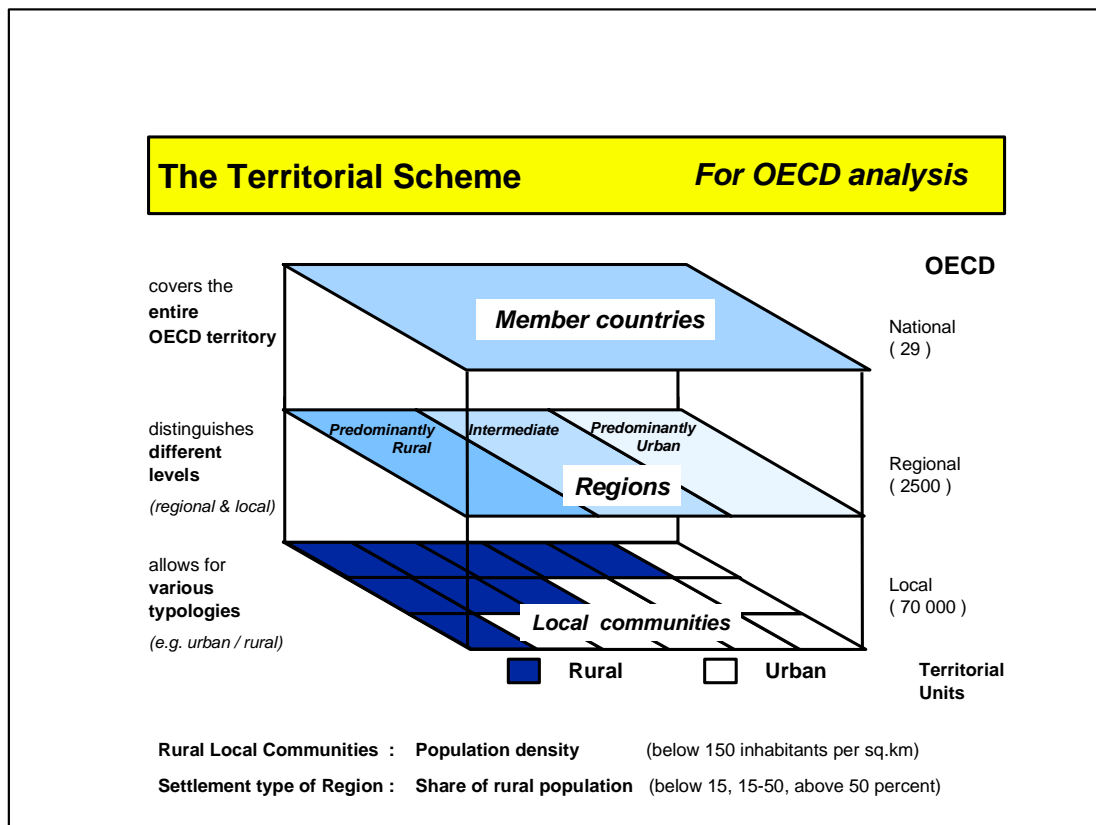
Moreover, when regions include a city of 200,000 inhabitants or more, the region is classified as intermediate; when regions include a city of 500,000 inhabitants or more, the region is classified as predominantly urban.

Within the scope of this scheme, a basic set of socio-economic indicators for these regions has been collected as well. The OECD designed this scheme and database of internationally comparable indicators in order to help member countries to improve their monitoring of changes and trends in rural economies, and to contribute to a sounder basis for decision making in rural development policy.

² For Japan the threshold is 500 inhabitants per square kilometre.

³ Originally, the term 'significantly rural' was used; as this was difficult to interpret for many users, later the term 'intermediate' was introduced.

Figure A1 The territorial scheme for OECD analysis



Source: OECD, 1996.

ANNEX 2 OVERVIEW OF USED DATA

The OECD Territorial Database classifies employment according to the International Industrial Classification System (ISIC) where:

1. 'agricultural employment' refers to:
ISIC = 1, which includes employment in agricultural, forestry and fishing enterprises;
2. 'industry' refers to:
ISIC = 2, which is mining and quarrying;
ISIC = 3, which is manufacturing;
ISIC = 4, which is electricity, gas and water utilities; and
ISIC = 5, which is construction.
3. 'services' refers to:
ISIC = 6, which is wholesale and retail trade and restaurants and hotels;
ISIC = 7, which is transportation, storage and communication;
ISIC = 8, which is finance, insurance, real estate and business services; and
ISIC = 9, which is community, social and personal services.

Belgium

Data by sector by place of residence was obtained from Eurostat for 1983 and 1990 and 2000.

For 1980, the 1983 data by sector were used to distribute the 1980 employment at place of residence across the sectors.

For 1990 and 2000, the distribution of employment by sector is used to prorate the total employment at place of residence across the three sectors.

Thus, in this paper, employment by sector for 1980 and 1990 and 2000 refers to employment at place of residence.

Note that the employment data at the national level for 1980 using employment at place of work was 10 percent lower than for employment at place of residence. The employment data at the national level for 1990 using employment at place of work was 3 percent less than for employment at place of residence. The employment data at the national level for 2000 using employment at place of work was slightly greater (about ½ of 1 percent) than for employment at place of residence. Thus, the calculation of national employment growth between 1980 and 1990 will differ by 7 percentage points, depending upon whether one uses the data for employment at place of work or employment at place of residence.

Canada

Canadian census data for employment by sector were tabulated at place of residence (although they could have been tabulated at place of work). For 1981 and 1991, the sum across sectors was less (by less than 1 percent) than the total employment at place of residence, due to differences in the way the total population was defined in the two separate data requests (one difference is due to a difference in the coverage of individuals in the military). The 2001 data of employment by sector was (unintentionally) tabulated for the 'experienced workforce.' The 'experienced workforce' includes individuals unemployed in the week preceding the census (on May 14) if they had a job since January of the previous year. This gives a better picture of the industrial structure of a region because it picks up the job structure of employment over the previous 15 months – however, compared to the level of employment recorded for

the week preceding the census, some regions will have an experienced labour force that is 20 percent higher than the level of employment for the week preceding the census. {We will re-tabulate the 2001 census data to make this consistent}.

For each of 1981 and 1991 and 2001, the level of employment by sector is prorated to equal the level of employment at place of residence.

Thus, in this paper, non-agricultural employment for 1981 and 1991 and 2001 refers to employment at place of residence and was calculated as total employment minus agricultural employment.

France

Employment data by sector for 1980, 1990 and 1999 is at place of work.

Thus, in this paper, non-agricultural employment for 1980 and 1990 and 1999 refers to employment at place of work and non-agricultural employment was calculated as total employment minus agricultural employment.

The 1980 employment data for place of work at the national level is slightly less (less than 1/2/ of 1 percent) than the employment data for place of residence. In 1990, the national place of work data is 1 percent larger than the national data for place of residence. The 1999 national level place of work employment is 2 percent less than the 2000 national level place of residence data. Thus, the calculation of national employment growth between 1990 and 1999 or 2000 may differ by at least 1 percentage point, depending upon whether one uses the data for employment at place of work or employment at place of residence.

Germany

Employment data by industrial sector is not available for all TL3 regions for 1980. The 1990 and 1999 employment data by sector summed to both the total employment by place of work and the total employment by place of residence.

Thus, in this paper, non-agricultural employment for 1990 and 1999 refers to employment at place of residence (and the data is the same for place of work) and non-agricultural employment was calculated as total employment minus agricultural employment.

Greece

Employment data by sector is not available for 1980. Employment data by sector for 1991 and 2000 is tabulated at place of residence. The sum of employment across sectors in 1991 was 1 percent less than total employment and the distribution of employment by sector was used to pro-rate the total employment across sectors.

In this paper, non-agricultural employment for 1991 and 2000 refers to employment at place of residence and non-agricultural employment was calculated as total employment minus agricultural employment.

Hungary

Employment data by sector is at the place of work for 1980, 1990 and 2000. However, the data show an increase in employment over time because the coverage of the survey increased over time. The trend for national employment at place of residence is to show a decline in national employment over time.

To maintain the correct trend at the national level, the employment at place of residence was prorated across the sectors by the employment by sector (at place of work).

Thus, in this paper, non-agricultural employment for 1990 and 2000 refers to employment at place of residence.

Japan

The sum of employment across sectors equals the employment at place of residence for 1980 and 1990. At the national level, the 2000 sum of employment across sectors is about 1 percent less than the national data for employment at place of residence. The distribution of employment by sector for 2000 was used to prorate the employment by place of residence across the sectors.

Thus, in this paper, non-agricultural employment for 1980 and 1990 and 2000 refers to employment at place of residence and non-agricultural employment was calculated as total employment minus agricultural employment.

Mexico

Employment data by sector was available for 1990 and 2000.

The sum of employment across sectors equals the employment at place of work.

Thus, in this paper, non-agricultural employment for 1990 and 2000 refers to employment at place of work and non-agricultural employment was calculated as total employment minus agricultural employment.

Note that the 2000 national data by place of work is 3 percent less than the national data by place of residence. Thus, the calculation of employment growth in the 1990 to 2000 period will differ by 3 percentage points, depending upon which data series is used.

Netherlands

The 1980 national data for the sum of employment across sectors is equal to the employment at place of residence for each TL3 region except Overijssel, Gelderland and Flevoland). For these three regions, the employment at place of residence was prorated across the sectors using the data on employment by sector (at place of work).

The 1990 national data for the sum of employment across sectors is equivalent to the national data for employment at place of residence.

The 2000 data for the sum of employment across sectors is 6 percent less than the 2000 national data for employment at place of residence.

For 2000, we have used the 2000 distribution of employment across sectors to prorate the employment at place of residence across sectors.

Thus, in this paper, non-agricultural employment for 1980 and 1990 and 2000 refers to employment at place of residence and non-agricultural employment was calculated as total employment minus agricultural employment.

New Zealand

For each of 1981 and 1991 and 2001, the sum of employment across sectors equals the data for employment at place of work. For 1991 and 2001, it is also equal to the employment at place of residence. However, in 1981, the national data for employment by place of work (and also the national data for employment across sectors) is larger by 9 percent, compared to the national data for employment by place of residence. The consequence is that the 1981 to 1991 employment change is negative for the country and certainly for the largest centres if one uses employment by place of residence BUT employment change is positive if one uses the data for employment by place of residence (and again this is most obvious for the larger centres). Consequently,

it is not clear which data series is correct. For the interim, pending clarification, we shall not calculate non-agricultural employment for 1981.

Thus, in this paper, non-agricultural employment in 1991 or 2001 refers to employment at place of residence (which is also the same as employment at place of work) and non-agricultural employment was calculated as total employment minus agricultural employment.

Norway

In 1980, the sum of employment across sectors was equal to the national level for employment at place of work but this was 29 percent less than the national level for employment at place of residence. If we were to choose employment at place of residence as the control total, then we could use the distribution of employment by sector to prorate the employment at place of residence across sectors. However, the discrepancy of 29 percent seems larger – although the discrepancy is close to 29 percent in each of the TL3 regions.

In 1992, the sum of employment across sectors was 5 percent less than the employment at place of residence and 2 percent less than the employment at place of work.

In 2000, the sum of employment across sectors was 1 percent less than the 2000 employment at place of residence and 1 percent less than the 2000 employment at place of work (because employment at place of work and employment at place of residence were equal in 2000).

To estimate non-agricultural employment, we have chosen employment at place of work as the control totals for 1992 and 2000 and used the data on employment by sector to prorate employment across the sectors.

Note that the 1990 place of work data is 4 percent less than the place of residence data but the 2000 place of work data is 1 percent less than the place of work data. Thus, a calculation of employment growth between 1990 and 2000 will differ by 3 percentage points, depending upon which data series one chooses.

Thus, in this paper, non-agricultural employment in 1992 and 2000 refers to employment at place of work and non-agricultural employment was calculated as total employment minus agricultural employment.

Spain

Employment data by sector were not available for 1981.

The 1991 employment data by sector at the national level was 1 percent less than the national place of work data. Consequently, the employment data by sector was used to prorate the place of work data across sectors.

The 2000 employment data by sector did sum to the place of work data.

In this paper, non-agricultural employment for 1991 and 2000 refers to employment at place of work and non-agricultural employment was calculated as total employment minus agricultural employment.

Note that the 1991 national employment place of work data is 5 percent larger than the 1991 national employment place of residence data. The 2000 national place of work data is 7 percent larger than the 2001 place of employment data. Thus, the calculation of the national employment growth will differ by about 2 percentage points, depending upon the data series used for the calculation.

Sweden

The 1990 employment data by sector at the national level was 1 percent less than the national place of work data. Consequently, the employment data by sector was used to prorate the place of work data across sectors.

For 1980 and 1999, the national employment data by sector was equal to the place of work data.

In this paper, non-agricultural employment for 1980 and 1990 and 1999 refers to employment at place of work and non-agricultural employment was calculated as total employment minus agricultural employment.

Note that the national place of work data is greater than the national place of residence data (by 2 percent in 1980 and by 3 percent in 1990 and the 1999 place of work data is greater than the 2000 place of residence data by less than ½ of 1 percent). Consequently, the calculation of national employment growth will differ by 1 to 3 percentage points over this period, depending upon the data series used for this calculation.

US

Employment data by sector were available for 1980 and 1990 and 2000. These data at the national level track the national data on employment at place of residence. Consequently, the employment data by sector was used to prorate the employment data by place of residence across sectors for each of 1980 and 1990 and 2000.

In this paper, non-agricultural employment for 1980 and 1990 and 2000 refers to employment at place of residence and non-agricultural employment was calculated as total employment minus agricultural employment.

ANNEX TABLES

Table A2.1 Overview of leading, middle and lagging regions in the studied countries in the 1980s and 1990s (excluding Canada, Mexico and US)

REGCOD	REGNAM	TYPE	Employment POW			growth	Position 1980s	growth	Position 1990s
			1980	1990	2000	1980-1990		1990-2000	
						(% p.a.)		(% p.a.)	
BE10	Région Bruxelles-capitale/ Brussels hoofdstad gewest	PU	689,200	669,600	346,000	-0.3	1980s Lag 1/3	0.7	1990s Lag 1/3
BE21	Antwerpen	PU	616,200	633,200	675,200	0.3	1980s Mid 1/3	1.6	1990s Lead 1/3
BE22	Limburg (B)	PU	233,800	251,800	325,100	0.7	1980s Mid 1/3	2.0	1990s Lead 1/3
BE23	Oost-Vlaanderen	PU	431,200	448,500	593,200	0.4	1980s Mid 1/3	1.3	1990s Lag 1/3
BE24	Vlaams Brabant	PU	275,000	302,600	452,200	1.0	1980s Lead 1/3	1.5	1990s Mid 1/3
BE25	West-Vlaanderen	PU	392,300	424,200	494,100	0.8	1980s Lead 1/3	1.3	1990s Mid 1/3
BE31	Brabant Wallon	IN	84,700	95,700	146,000	1.2	1980s Lead 1/3	2.0	1990s Lead 1/3
BE32	Hainaut	PU	409,300	378,800	443,100	-0.8	1980s Lag 1/3	0.7	1990s Lag 1/3
BE33	Liège	IN	363,900	344,500	378,100	-0.5	1980s Lag 1/3	0.8	1990s Lag 1/3
BE34	Luxembourg (B)	PR	72,300	79,600	100,200	1.0	1980s Lead 1/3	1.6	1990s Lead 1/3
BE35	Namur	IN	132,700	135,800	166,700	0.2	1980s Lag 1/3	1.4	1990s Mid 1/3
BELTOT	BELGIUM TOTAL	PU	3,700,600	3,764,300	4,119,900	0.2	(e) Country average	1.3	(e) Country average
DE11	Schleswig-Holstein West	PR	182,935	202,394	197,270	1.0		-0.3	1990s Lead 1/3
DE12	Schleswig-Holstein Ost	IN	347,966	376,816	352,650	0.8		-0.7	1990s Mid 1/3
DE20	Region Hamburg	PU	1,041,307	1,133,380	1,088,600	0.9		-0.4	1990s Lead 1/3
DE31	Braunschweig	IN	539,455	586,610	545,410	0.8		-0.8	1990s Mid 1/3
DE32	Hannover	PU	646,838	700,380	656,860	0.8		-0.7	1990s Mid 1/3
DE33	Lüneburg	PR	283,237	174,680	298,310	-4.7		6.1	1990s Lead 1/3
DE34	Weser-Ems	PR	510,709	592,010	603,330	1.5		0.2	1990s Lead 1/3
DE40	Region Bremen	PU	433,916	608,710	453,410	3.4		-3.2	1990s Lag 1/3
DE51	Ruhrgebiet	PU	2,236,837	2,252,050	2,014,690	0.1		-1.2	1990s Lag 1/3
DE53	Rheinland	PU	2,113,027	2,349,870	2,268,930	1.1		-0.4	1990s Lead 1/3
DE55	Münster	PU	391,297	467,870	479,330	1.8		0.3	1990s Lead 1/3
DE57	Detmold	PU	607,523	713,400	693,810	1.6		-0.3	1990s Lead 1/3
DE59	Sauerland	IN	300,079	343,580	329,780	1.4		-0.5	1990s Mid 1/3
DE64	Darmstadt	PU	1,324,793	1,497,840	1,415,230	1.2		-0.6	1990s Mid 1/3
DE65	Gießen	PU	286,266	326,200	310,290	1.3		-0.6	1990s Mid 1/3
DE66	Kassel	IN	358,470	416,770	390,280	1.5		-0.7	1990s Mid 1/3
DE71	Koblenz	IN	385,265	432,940	424,250	1.2		-0.2	1990s Lead 1/3
DE72	Trier	PR	129,175	143,260	141,550	1.0		-0.1	1990s Lead 1/3
DE73	Rheinhessen-Pfalz	PU	588,583	637,370	604,880	0.8		-0.6	1990s Mid 1/3
DE81	Stuttgart	PU	1,366,073	1,594,760	1,469,700	1.6		-0.9	1990s Lag 1/3
DE82	Karlsruhe	PU	902,143	1,011,940	953,180	1.2		-0.7	1990s Mid 1/3
DE83	Freiburg	PU	634,523	730,160	694,080	1.4		-0.6	1990s Mid 1/3
DE84	Tübingen	IN	535,243	617,160	583,980	1.4		-0.6	1990s Mid 1/3

DE90	Region München-Ingolstadt	PU	1,006,035	1,177,660	1,167,880	1.6		-0.1	1990s Lead 1/3
DE91	Alpenvorland	PR	295,260	356,610	351,020	1.9		-0.2	1990s Lead 1/3
DE92	Niederbayern	PR	292,162	362,680	361,500	2.2		0.0	1990s Lead 1/3
DE93	Oberpfalz	PR	285,152	352,810	348,620	2.2		-0.1	1990s Lead 1/3
DE94	Oberfranken	IN	366,149	419,210	384,270	1.4		-1.0	1990s Lag 1/3
DE95	Mittelfranken	IN	590,566	673,780	626,500	1.3		-0.8	1990s Mid 1/3
DE96	Unterfranken	IN	380,683	445,630	433,990	1.6		-0.3	1990s Lead 1/3
DE97	Schwaben	IN	501,672	589,440	563,950	1.6		-0.5	1990s Mid 1/3
DE100	Saarland	PU	354,666	358,610	348,830	0.1		-0.3	1990s Lead 1/3
DE110	Region Berlin	PU	..	1,892,060	1,656,830			-1.5	1990s Lag 1/3
DE121	Prignitz-Uckermark	PR	..	120,059	111,460			-0.8	1990s Mid 1/3
DE122	Cottbus	PR	..	235,866	182,370			-2.8	1990s Lag 1/3
DE131	Stralsund-Greifswald	PR	..	142,384	139,740			-0.2	1990s Lead 1/3
DE132	Schwerin	PR	..	181,353	169,950			-0.7	1990s Mid 1/3
DE133	Neubrandenburg	PR	..	149,002	137,950			-0.9	1990s Mid 1/3
DE134	Rostock	IN	..	185,111	153,850			-2.0	1990s Lag 1/3
DE141	Chemnitz	PU	..	618,970	554,990			-1.2	1990s Lag 1/3
DE142	Dresden	PU	..	672,933	605,260			-1.2	1990s Lag 1/3
DE143	Leipzig	PU	..	451,778	390,460			-1.6	1990s Lag 1/3
DE151	Dessau	IN	..	207,737	166,770			-2.4	1990s Lag 1/3
DE152	Halle	IN	..	359,267	294,900			-2.2	1990s Lag 1/3
DE153	Magdeburg	IN	..	375,300	328,610			-1.5	1990s Lag 1/3
DE154	Altmark	PR	..	84,848	72,070			-1.8	1990s Lag 1/3
DE161	Mittel- und Nordthüringen	IN	..	419,059	399,430			-0.5	1990s Mid 1/3
DE162	Ostthüringen	IN	..	294,786	264,710			-1.2	1990s Lag 1/3
DE163	Südthüringen	IN	..	190,251	175,820			-0.9	1990s Lag 1/3
DEUTOT	GERMANY TOTAL	IN	#####	#####	#####	3.8		-0.7	(e) Country average
FR711	Ain	PR	152,100	172,600	189,700	1.3	1980s Lead 1/3	0.9	1990s Lead 1/3
FR221	Aisne	PR	190,600	184,600	186,300	-0.3	1980s Lag 1/3	0.1	1990s Lag 1/3
FR721	Allier	PR	137,300	124,300	121,800	-1.0	1980s Lag 1/3	-0.2	1990s Lag 1/3
FR821	Alpes-de-Haute-Provence	PR	42,300	46,400	48,900	0.9	1980s Lead 1/3	0.5	1990s Mid 1/3
FR822	Hautes-Alpes	PR	43,000	47,400	51,300	1.0	1980s Lead 1/3	0.8	1990s Lead 1/3
FR823	Alpes-Maritimes	PU	306,600	349,300	357,500	1.3	1980s Lead 1/3	0.2	1990s Lag 1/3
FR712	Ardèche	PR	87,900	91,200	97,800	0.4	1980s Mid 1/3	0.7	1990s Lead 1/3
FR211	Ardennes	PR	104,400	100,800	99,500	-0.4	1980s Lag 1/3	-0.1	1990s Lag 1/3
FR621	Ariège	PR	45,600	45,600	48,600	0.0	1980s Mid 1/3	0.6	1990s Mid 1/3
FR212	Aube	PR	120,300	116,900	112,900	-0.3	1980s Lag 1/3	-0.3	1990s Lag 1/3
FR811	Aude	PR	94,700	96,500	104,200	0.2	1980s Mid 1/3	0.8	1990s Lead 1/3
FR622	Aveyron	PR	102,600	101,600	105,200	-0.1	1980s Mid 1/3	0.3	1990s Mid 1/3
FR824	Bouches-du-Rhône	PU	607,300	638,500	675,300	0.5	1980s Mid 1/3	0.6	1990s Mid 1/3
FR251	Calvados	IN	231,700	244,200	261,700	0.5	1980s Lead 1/3	0.7	1990s Lead 1/3
FR722	Cantal	PR	60,300	56,700	57,700	-0.6	1980s Lag 1/3	0.2	1990s Lag 1/3
FR531	Charente	PR	134,600	128,200	127,900	-0.5	1980s Lag 1/3	0.0	1990s Lag 1/3
FR532	Charente-Maritime	PR	180,800	178,900	190,300	-0.1	1980s Mid 1/3	0.6	1990s Mid 1/3
FR241	Cher	PR	123,700	120,000	116,900	-0.3	1980s Lag 1/3	-0.3	1990s Lag 1/3
FR631	Corrèze	PR	94,200	90,400	90,500	-0.4	1980s Lag 1/3	0.0	1990s Lag 1/3

FR831	Corse-du-Sud	PR	35,800	39,100	46,700	0.9	1980s Lead 1/3	1.8	1990s Lead 1/3
FR832	Haute-Corse	PR	42,300	43,200	50,400	0.2	1980s Mid 1/3	1.6	1990s Lead 1/3
FR261	Côte-d'Or	IN	192,500	200,500	210,800	0.4	1980s Mid 1/3	0.5	1990s Mid 1/3
FR521	Côte-du-Nord	PR	200,200	184,700	195,200	-0.8	1980s Lag 1/3	0.6	1990s Mid 1/3
FR632	Creuse	PR	52,200	45,800	45,000	-1.3	1980s Lag 1/3	-0.2	1990s Lag 1/3
FR611	Dordogne	PR	138,200	135,500	137,900	-0.2	1980s Lag 1/3	0.2	1990s Lag 1/3
FR431	Doubs	IN	199,500	193,600	204,200	-0.3	1980s Lag 1/3	0.5	1990s Mid 1/3
FR713	Drôme	PR	152,200	168,400	179,700	1.0	1980s Lead 1/3	0.7	1990s Mid 1/3
FR231	Eure	PR	174,200	184,000	194,300	0.5	1980s Lead 1/3	0.5	1990s Mid 1/3
FR242	Eure-et-Loir	PR	138,800	146,100	151,800	0.5	1980s Lead 1/3	0.4	1990s Mid 1/3
FR522	Finistère	IN	308,700	302,300	322,000	-0.2	1980s Lag 1/3	0.6	1990s Mid 1/3
FR812	Gard	PR	171,500	196,700	215,200	1.4	1980s Lead 1/3	0.9	1990s Lead 1/3
FR623	Haute-Garonne	IN	322,900	392,000	445,700	2.0	1980s Lead 1/3	1.3	1990s Lead 1/3
FR624	Gers	PR	65,300	64,700	64,700	-0.1	1980s Mid 1/3	0.0	1990s Lag 1/3
FR612	Gironde	IN	438,500	477,100	522,400	0.8	1980s Lead 1/3	0.9	1990s Lead 1/3
FR813	Hérault	IN	232,500	272,500	311,900	1.6	1980s Lead 1/3	1.4	1990s Lead 1/3
FR523	Ille-et-Vilaine	IN	306,600	330,100	364,300	0.7	1980s Lead 1/3	1.0	1990s Lead 1/3
FR243	Indre	PR	95,400	89,600	86,900	-0.6	1980s Lag 1/3	-0.3	1990s Lag 1/3
FR244	Indre-et-Loire	IN	199,200	209,500	217,800	0.5	1980s Lead 1/3	0.4	1990s Mid 1/3
FR714	Isère	IN	359,700	395,800	423,600	1.0	1980s Lead 1/3	0.7	1990s Lead 1/3
FR432	Jura	PR	92,300	95,100	97,700	0.3	1980s Mid 1/3	0.3	1990s Mid 1/3
FR613	Landes	PR	110,400	116,800	126,300	0.6	1980s Lead 1/3	0.8	1990s Lead 1/3
FR245	Loir-et-Cher	PR	119,600	120,400	119,000	0.1	1980s Mid 1/3	-0.1	1990s Lag 1/3
FR715	Loire	IN	281,500	268,600	271,200	-0.5	1980s Lag 1/3	0.1	1990s Lag 1/3
FR723	Haute-Loire	PR	78,000	74,300	75,900	-0.5	1980s Lag 1/3	0.2	1990s Lag 1/3
FR511	Loire-Atlantique	IN	380,100	399,900	437,500	0.5	1980s Lead 1/3	0.9	1990s Lead 1/3
FR246	Loiret	IN	226,700	236,600	253,300	0.4	1980s Mid 1/3	0.7	1990s Lead 1/3
FR625	Lot	PR	57,700	57,600	60,600	0.0	1980s Mid 1/3	0.5	1990s Mid 1/3
FR614	Lot-et-Garonne	PR	112,000	111,000	112,400	-0.1	1980s Mid 1/3	0.1	1990s Lag 1/3
FR814	Lozère	PR	27,600	27,100	29,200	-0.2	1980s Mid 1/3	0.7	1990s Lead 1/3
FR512	Maine-et-Loire	IN	267,500	268,000	289,100	0.0	1980s Mid 1/3	0.8	1990s Lead 1/3
FR252	Manche	PR	187,200	183,600	186,100	-0.2	1980s Lag 1/3	0.1	1990s Lag 1/3
FR213	Marne	IN	216,100	226,500	231,400	0.5	1980s Mid 1/3	0.2	1990s Lag 1/3
FR214	Haute-Marne	PR	81,800	77,500	76,300	-0.5	1980s Lag 1/3	-0.2	1990s Lag 1/3
FR513	Mayenne	PR	118,700	115,000	120,000	-0.3	1980s Lag 1/3	0.4	1990s Mid 1/3
FR411	Meurthe-et-Moselle	IN	258,900	248,000	256,300	-0.4	1980s Lag 1/3	0.3	1990s Mid 1/3
FR412	Meuse	PR	70,000	67,300	67,100	-0.4	1980s Lag 1/3	0.0	1990s Lag 1/3
FR524	Morbihan	PR	217,700	223,900	237,100	0.3	1980s Mid 1/3	0.6	1990s Mid 1/3
FR413	Moselle	IN	348,900	342,400	351,000	-0.2	1980s Mid 1/3	0.2	1990s Lag 1/3
FR262	Nièvre	PR	88,300	82,900	82,200	-0.6	1980s Lag 1/3	-0.1	1990s Lag 1/3
FR301	Nord	PU	913,300	865,600	907,900	-0.5	1980s Lag 1/3	0.5	1990s Mid 1/3
FR222	Oise	IN	241,300	249,500	259,700	0.3	1980s Mid 1/3	0.4	1990s Mid 1/3
FR253	Orne	PR	121,500	117,800	119,200	-0.3	1980s Lag 1/3	0.1	1990s Lag 1/3
FR302	Pas-de-Calais	IN	422,000	427,100	461,200	0.1	1980s Mid 1/3	0.8	1990s Lead 1/3
FR724	Puy-de-Dôme	IN	246,400	236,600	241,900	-0.4	1980s Lag 1/3	0.2	1990s Lag 1/3
FR615	Pyrénées-Atlantiques	IN	208,600	218,700	234,300	0.5	1980s Mid 1/3	0.7	1990s Lead 1/3
FR626	Hautes-Pyrénées	PR	84,800	84,900	88,000	0.0	1980s Mid 1/3	0.4	1990s Mid 1/3
FR815	Pyrénées-Orientales	IN	108,400	116,600	129,800	0.7	1980s Lead 1/3	1.1	1990s Lead 1/3
FR421	Bas-Rhin	IN	361,800	385,900	417,400	0.6	1980s Lead 1/3	0.8	1990s Lead 1/3
FR422	Haut-Rhin	IN	246,000	248,500	270,900	0.1	1980s Mid 1/3	0.9	1990s Lead 1/3

FR716	Rhône	PU	660,800	694,300	719,400	0.5	1980s Mid 1/3	0.4	1990s Mid 1/3
FR433	Haute-Saône	PR	78,100	75,500	74,900	-0.3	1980s Lag 1/3	-0.1	1990s Lag 1/3
FR263	Saône-et-Loire	PR	218,600	206,300	205,000	-0.6	1980s Lag 1/3	-0.1	1990s Lag 1/3
FR514	Sarthe	PR	199,300	197,300	209,300	-0.1	1980s Mid 1/3	0.6	1990s Mid 1/3
FR717	Savoie	PR	133,400	153,000	165,800	1.4	1980s Lead 1/3	0.8	1990s Lead 1/3
FR718	Haute-Savoie	IN	196,500	233,000	254,200	1.7	1980s Lead 1/3	0.9	1990s Lead 1/3
FR101	Paris	PU	1,808,200	1,734,600	1,615,200	-0.4	1980s Lag 1/3	-0.7	1990s Lag 1/3
FR232	Seine-Maritime	IN	477,400	471,500	485,000	-0.1	1980s Mid 1/3	0.3	1990s Mid 1/3
FR102	Seine-et-Marne	IN	278,700	349,900	406,700	2.3	1980s Lead 1/3	1.5	1990s Lead 1/3
FR103	Yvelines	PU	409,100	488,100	517,800	1.8	1980s Lead 1/3	0.6	1990s Mid 1/3
FR533	Deux-Sèvres	PR	133,300	127,600	133,800	-0.4	1980s Lag 1/3	0.5	1990s Mid 1/3
FR223	Somme	PR	199,900	194,700	206,900	-0.3	1980s Lag 1/3	0.6	1990s Mid 1/3
FR627	Tarn	PR	123,300	122,100	120,100	-0.1	1980s Mid 1/3	-0.2	1990s Lag 1/3
FR628	Tarn-et-Garonne	PR	66,900	72,400	74,500	0.8	1980s Lead 1/3	0.3	1990s Mid 1/3
FR825	Var	IN	239,300	268,700	290,900	1.2	1980s Lead 1/3	0.8	1990s Lead 1/3
FR826	Vaucluse	IN	158,200	174,700	183,500	1.0	1980s Lead 1/3	0.5	1990s Mid 1/3
FR515	Vendée	PR	181,500	190,700	212,000	0.5	1980s Mid 1/3	1.1	1990s Lead 1/3
FR534	Vienne	PR	139,300	138,300	149,900	-0.1	1980s Mid 1/3	0.8	1990s Lead 1/3
FR633	Haute-Vienne	IN	143,500	139,500	143,800	-0.3	1980s Lag 1/3	0.3	1990s Mid 1/3
FR414	Vosges	PR	155,800	145,500	147,200	-0.7	1980s Lag 1/3	0.1	1990s Lag 1/3
FR264	Yonne	PR	116,700	118,400	126,500	0.1	1980s Mid 1/3	0.7	1990s Lead 1/3
FR434	Territoire de Belfort	IN	48,500	48,500	50,500	0.0	1980s Mid 1/3	0.4	1990s Mid 1/3
FR104	Essonne	PU	311,500	392,400	418,900	2.3	1980s Lead 1/3	0.7	1990s Lead 1/3
FR105	Hauts-de-Seine	PU	724,900	809,300	835,400	1.1	1980s Lead 1/3	0.3	1990s Mid 1/3
FR106	Seine-Saint-Denis	PU	463,400	502,700	502,700	0.8	1980s Lead 1/3	0.0	1990s Lag 1/3
FR107	Val-de-Marne	PU	440,000	484,500	466,400	1.0	1980s Lead 1/3	-0.4	1990s Lag 1/3
FR108	Val-d'Oise	PU	266,400	348,000	374,800	2.7	1980s Lead 1/3	0.7	1990s Lead 1/3
FRATOT	FRANCE TOTAL	IN	#####	#####	#####	0.4	(e) Country average	0.4	(e) Country average
GR11	Anatoliki Makedonia, Thraki	PR	..	232,900	223,900			-0.4	1990s Mid 1/3
GR12	Kentriki Makedonia	IN	..	630,300	673,100			0.7	1990s Lead 1/3
GR13	Dytiki Makedonia	PR	..	98,100	92,700			-0.6	1990s Lag 1/3
GR14	Thessalia	PR	..	253,400	259,200			0.3	1990s Mid 1/3
GR21	Ipeiros	PR	..	98,000	100,700			0.3	1990s Mid 1/3
GR22	Ionia Nisia	IN	..	74,100	75,500			0.2	1990s Mid 1/3
GR23	Dytiki Ellada	PR	..	219,600	234,400			0.7	1990s Mid 1/3
GR24	Stereia Ellada	PR	..	175,100	158,000			-1.1	1990s Lag 1/3
GR25	Peloponnisos	PR	..	211,900	202,600			-0.5	1990s Lag 1/3
GR30	Attiki	PU	..	1,331,400	1,554,900			1.7	1990s Lead 1/3
GR41	Voreio Aigaio	PR	..	62,000	55,100			-1.3	1990s Lag 1/3
GR42	Notio Aigaio	PR	..	83,400	97,800			1.8	1990s Lead 1/3
GR43	Kriti	IN	..	194,900	218,300			1.3	1990s Lead 1/3
GRCTOT	GREECE TOTAL	IN	..	3,665,100	3,946,200			0.8	(e) Country average
HU011-12	Budapest + Pest	PU	1,224,003	1,345,740	1,183,748	1.0	1980s Lag 1/3	-1.3	1990s Lead 1/3
HU021	Fejér	PR	154,392	205,734	174,472	2.9	1980s Lead 1/3	-1.6	1990s Lead 1/3
HU022	Komarom-Esztergom	IN	127,372	148,488	124,505	1.5	1980s Lag 1/3	-1.7	1990s Mid 1/3
HU023	Veszprém	IN	140,298	181,807	153,699	2.6	1980s Lead 1/3	-1.7	1990s Lead 1/3

HU031	Győr-Moson-Sopron	IN	163,052	202,343	181,137	2.2	1980s Mid 1/3	-1.1	1990s Lead 1/3
HU032	Vas	IN	99,415	132,037	118,677	2.9	1980s Lead 1/3	-1.1	1990s Lead 1/3
HU033	Zala	PR	112,393	143,026	125,155	2.4	1980s Mid 1/3	-1.3	1990s Lead 1/3
HU041	Baranya	IN	160,555	188,152	142,654	1.6	1980s Lag 1/3	-2.7	1990s Lag 1/3
HU042	Somogy	PR	119,013	154,631	119,544	2.7	1980s Lead 1/3	-2.5	1990s Mid 1/3
HU043	Tolna	PR	98,101	117,358	90,097	1.8	1980s Lag 1/3	-2.6	1990s Mid 1/3
HU051	Borsod-Abaúj-Zemplén	IN	298,274	335,785	223,753	1.2	1980s Lag 1/3	-4.0	1990s Lag 1/3
HU052	Heves	PR	126,532	148,775	117,297	1.6	1980s Lag 1/3	-2.3	1990s Mid 1/3
HU053	Nograd	PR	81,069	102,195	76,512	2.3	1980s Mid 1/3	-2.9	1990s Lag 1/3
HU061	Hajdu-Bihar	PR	182,292	240,567	185,808	2.8	1980s Lead 1/3	-2.5	1990s Mid 1/3
HU062	Jász-Nagykun-Szolnok	PR	152,871	192,466	144,457	2.3	1980s Mid 1/3	-2.8	1990s Lag 1/3
HU063	Szabolcs-Szatmar-Bereg	PR	181,975	232,027	167,625	2.5	1980s Lead 1/3	-3.2	1990s Lag 1/3
HU071	Bács-Kiskun	PR	201,018	251,633	203,291	2.3	1980s Mid 1/3	-2.1	1990s Mid 1/3
HU072	Békés	PR	150,780	182,052	133,446	1.9	1980s Mid 1/3	-3.1	1990s Lag 1/3
HU073	Csongrad	PR	160,019	198,092	163,227	2.2	1980s Mid 1/3	-1.9	1990s Mid 1/3
HUNTOT	HUNGARY TOTAL	IN	3,933,424	4,702,908	3,829,104	1.8	(e) Country average	-2.0	(e) Country average
JP01	Hokkaido	PR	2,598,312	2,694,903	2,730,723	0.4	1980s Mid 1/3	0.1	1990s Mid 1/3
JP02	Aomori	PR	722,131	717,945	729,472	-0.1	1980s Lag 1/3	0.2	1990s Mid 1/3
JP03	Iwate	PR	723,158	738,363	732,788	0.2	1980s Mid 1/3	-0.1	1990s Lag 1/3
JP04	Miyagi	IN	988,719	1,101,276	1,153,411	1.1	1980s Lead 1/3	0.5	1990s Lead 1/3
JP05	Akita	PR	624,475	614,522	588,385	-0.2	1980s Lag 1/3	-0.4	1990s Lag 1/3
JP06	Yamagata	PR	648,992	656,851	642,580	0.1	1980s Lag 1/3	-0.2	1990s Lag 1/3
JP07	Fukushima	PR	1,027,123	1,067,909	1,060,924	0.4	1980s Mid 1/3	-0.1	1990s Lag 1/3
JP08	Ibaragi	IN	1,241,868	1,430,686	1,504,046	1.4	1980s Lead 1/3	0.5	1990s Lead 1/3
JP09	Tochigi	IN	894,936	1,002,011	1,038,088	1.1	1980s Lead 1/3	0.4	1990s Lead 1/3
JP10	Gunma	IN	920,872	1,016,221	1,040,250	1.0	1980s Mid 1/3	0.2	1990s Lead 1/3
JP11	Saitama	PU	2,459,243	3,231,551	3,528,376	2.8	1980s Lead 1/3	0.9	1990s Lead 1/3
JP12	Chiba	PU	2,158,483	2,770,633	2,975,685	2.5	1980s Lead 1/3	0.7	1990s Lead 1/3
JP13	Tokyo	PU	5,672,052	6,284,061	6,158,377	1.0	1980s Lead 1/3	-0.2	1990s Lag 1/3
JP14	Kanagawa	PU	3,142,295	4,033,686	4,245,271	2.5	1980s Lead 1/3	0.5	1990s Lead 1/3
JP15	Niigata	PR	1,272,237	1,282,063	1,265,803	0.1	1980s Lag 1/3	-0.1	1990s Lag 1/3
JP16	Toyama	IN	575,495	594,080	597,702	0.3	1980s Mid 1/3	0.1	1990s Mid 1/3
JP17	Ishikawa	IN	567,684	606,265	614,469	0.7	1980s Mid 1/3	0.1	1990s Mid 1/3
JP18	Fukui	PR	425,313	442,319	439,618	0.4	1980s Mid 1/3	-0.1	1990s Lag 1/3
JP19	Yamanashi	PR	398,660	440,137	457,688	1.0	1980s Lead 1/3	0.4	1990s Lead 1/3
JP20	Nagano	PR	1,111,605	1,174,104	1,200,281	0.5	1980s Mid 1/3	0.2	1990s Mid 1/3
JP21	Gifu	IN	990,009	1,077,468	1,092,373	0.9	1980s Mid 1/3	0.1	1990s Mid 1/3
JP22	Shizuoka	IN	1,743,584	1,966,117	2,013,164	1.2	1980s Lead 1/3	0.2	1990s Lead 1/3
JP23	Aichi	PU	3,048,896	3,513,404	3,687,238	1.4	1980s Lead 1/3	0.5	1990s Lead 1/3
JP24	Mie	IN	811,829	897,976	929,866	1.0	1980s Lead 1/3	0.3	1990s Lead 1/3
JP25	Shiga	IN	520,211	600,978	669,487	1.5	1980s Lead 1/3	1.1	1990s Lead 1/3
JP26	Kyoto	IN	1,186,455	1,273,483	1,270,485	0.7	1980s Mid 1/3	0.0	1990s Mid 1/3
JP27	Osaka	PU	3,811,047	4,236,759	4,134,181	1.1	1980s Lead 1/3	-0.2	1990s Lag 1/3
JP28	Hyogo	IN	2,310,722	2,543,402	2,598,880	1.0	1980s Mid 1/3	0.2	1990s Mid 1/3
JP29	Nara	PU	517,780	616,291	655,663	1.8	1980s Lead 1/3	0.6	1990s Lead 1/3
JP30	Wakayama	IN	499,416	503,903	499,157	0.1	1980s Lag 1/3	-0.1	1990s Lag 1/3
JP31	Tottori	IN	323,333	321,645	319,442	-0.1	1980s Lag 1/3	-0.1	1990s Lag 1/3
JP32	Shimane	PR	415,310	402,557	389,849	-0.3	1980s Lag 1/3	-0.3	1990s Lag 1/3
JP33	Okayama	IN	924,525	953,445	955,507	0.3	1980s Mid 1/3	0.0	1990s Mid 1/3
JP34	Hiroshima	IN	1,326,783	1,414,268	1,428,326	0.6	1980s Mid 1/3	0.1	1990s Mid 1/3

JP35	Yamaguchi	PR	767,930	766,513	746,704	0.0	1980s Lag 1/3	-0.3	1990s Lag 1/3
JP36	Tokushima	IN	404,614	400,046	390,509	-0.1	1980s Lag 1/3	-0.2	1990s Lag 1/3
JP37	Kagawa	IN	499,372	510,143	511,354	0.2	1980s Mid 1/3	0.0	1990s Mid 1/3
JP38	Ehime	IN	715,421	721,181	709,607	0.1	1980s Lag 1/3	-0.2	1990s Lag 1/3
JP39	Kochi	PR	414,404	401,535	393,820	-0.3	1980s Lag 1/3	-0.2	1990s Lag 1/3
JP40	Fukuoka	PU	2,023,297	2,181,788	2,323,182	0.8	1980s Mid 1/3	0.6	1990s Lead 1/3
JP41	Saga	PR	419,548	426,775	431,457	0.2	1980s Lag 1/3	0.1	1990s Mid 1/3
JP42	Nagasaki	IN	702,887	706,441	702,091	0.1	1980s Lag 1/3	-0.1	1990s Lag 1/3
JP43	Kumamoto	IN	847,638	872,301	886,887	0.3	1980s Mid 1/3	0.2	1990s Mid 1/3
JP44	Oita	PR	581,272	582,392	583,294	0.0	1980s Lag 1/3	0.0	1990s Mid 1/3
JP45	Miyazaki	PR	558,615	560,769	566,981	0.0	1980s Lag 1/3	0.1	1990s Mid 1/3
JP46	Kagoshima	PR	844,029	820,576	828,957	-0.3	1980s Lag 1/3	0.1	1990s Mid 1/3
JP47	Okinawa	IN	428,729	509,900	555,562	1.7	1980s Lead 1/3	0.9	1990s Lead 1/3
JPNTOT	JAPAN TOTAL	IN	#####	#####	#####	1.0	(e) Country average	0.2	(e) Country average
NL11	Groningen	IN	173,000	208,300	263,200	1.9	1980s Lag 1/3	2.4	1990s Mid 1/3
NL12	Friesland	IN	168,000	225,700	293,300	3.0	1980s Mid 1/3	2.7	1990s Lead 1/3
NL13	Drenthe	IN	123,000	172,000	222,200	3.4	1980s Lead 1/3	2.6	1990s Lead 1/3
NL21	Overijssel	PU	379,000	410,000	528,000	0.8	1980s Lag 1/3	2.6	1990s Lead 1/3
NL22	Gelderland	PU	729,000	771,400	945,400	0.6	1980s Lag 1/3	2.1	1990s Lag 1/3
NL23	Flevoland	IN	77,000	89,200	166,400	1.5	1980s Lag 1/3	6.4	1990s Lead 1/3
NL31	Utrecht	PU	329,000	462,300	577,700	3.5	1980s Lead 1/3	2.3	1990s Mid 1/3
NL32	Noord-Holland	PU	876,000	1,060,000	1,258,500	1.9	1980s Mid 1/3	1.7	1990s Lag 1/3
NL33	Zuid-Holland	PU	1,108,000	1,352,100	1,695,800	2.0	1980s Mid 1/3	2.3	1990s Mid 1/3
NL34	Zeeland	IN	108,000	152,000	175,000	3.5	1980s Lead 1/3	1.4	1990s Lag 1/3
NL41	Noord-Brabant	PU	677,000	941,600	1,181,700	3.4	1980s Mid 1/3	2.3	1990s Mid 1/3
NL42	Limburg	PU	330,000	461,400	546,700	3.4	1980s Lead 1/3	1.7	1990s Lag 1/3
NLDTOT	NETHERLANDS TOTAL	PU	5,077,000	6,306,000	7,853,900	2.2	(e) Country average	2.2	(e) Country average
NZ01	Northland Region	PR	inconsistent	44,451	54,966			2.1	1990s Mid 1/3
NZ02	Auckland Region	PU	inconsistent	400,638	533,856			2.9	1990s Lead 1/3
NZ03	Waikato Region	IN	inconsistent	143,450	162,963			1.3	1990s Lag 1/3
NZ04	Bay of Plenty Region	IN	inconsistent	70,540	100,746			3.6	1990s Lead 1/3
NZ05	Gisborne Region	IN	inconsistent	15,687	17,910			1.3	1990s Mid 1/3
NZ06	Hawke's Bay Region	IN	inconsistent	56,170	63,954			1.3	1990s Lag 1/3
NZ07	Taranaki Region	IN	inconsistent	41,365	46,032			1.1	1990s Lag 1/3
NZ08	Manawatu-Wanganui Region	IN	inconsistent	89,936	97,695			0.8	1990s Lag 1/3
NZ09	Wellington Region	PU	inconsistent	180,651	208,869			1.5	1990s Mid 1/3
NZ10	Tasman-Nelson-Marlborough	IN	inconsistent	45,192	59,649			2.8	1990s Lead 1/3
NZ11	West Coast Region	IN	inconsistent	9,006	13,947			4.5	1990s Lead 1/3
NZ12	Canterbury Region	IN	inconsistent	187,697	234,216			2.2	1990s Lead 1/3
NZ13	Otago Region	IN	inconsistent	72,083	86,823			1.9	1990s Mid 1/3
NZ14	Southland Region	IN	inconsistent	42,852	45,261			0.5	1990s Lag 1/3

NZLTOT	NEW ZEALAND TOTAL	IN	inconsistent	1,399,716	1,726,887			2.1	(e) Country average
NO012	Akershus	IN	too low	156,153	206,025			3.5	1990s Lead 1/3
NO041	Aust-Agder	PR	too low	34,153	43,694			3.1	1990s Lead 1/3
NO032	Buskerud	PR	too low	92,941	106,963			1.8	1990s Lag 1/3
NO073	Finnmark	PR	too low	31,906	50,544			5.9	1990s Lead 1/3
NO021	Hedmark	PR	too low	77,321	80,506			0.5	1990s Lag 1/3
NO051	Hordaland	IN	too low	174,459	210,568			2.4	1990s Mid 1/3
NO053	Møre og Romsdal	PR	too low	96,496	115,985			2.3	1990s Mid 1/3
NO071	Nordland	PR	too low	95,852	108,378			1.5	1990s Lag 1/3
NO062	Nord-Trøndelag	PR	too low	50,347	55,305			1.2	1990s Lag 1/3
NO022	Oppland	PR	too low	72,778	82,662			1.6	1990s Lag 1/3
NO011	Oslo	PU	too low	292,477	410,315			4.3	1990s Lead 1/3
NO031	Østfold	PR	too low	89,855	108,120			2.3	1990s Mid 1/3
NO043	Rogaland	IN	too low	151,689	184,361			2.5	1990s Mid 1/3
NO052	Sogn og Fjordane	PR	too low	46,914	53,057			1.6	1990s Lag 1/3
NO061	Sør-Trøndelag	IN	too low	108,503	131,852			2.5	1990s Mid 1/3
NO034	Telemark	PR	too low	64,022	73,933			1.8	1990s Mid 1/3
NO072	Troms	PR	too low	62,256	74,795			2.3	1990s Mid 1/3
NO042	Vest-Agder	PR	too low	57,246	71,329			2.8	1990s Lead 1/3
NO033	Vestfold	IN	too low	75,719	93,608			2.7	1990s Lead 1/3
NORTOT	NORWAY TOTAL	PR	too low	1,831,087	2,262,000			2.7	(e) Country average
ES111	La Coruña	IN	338,100	402,800	423,100	1.8	1980s Lead 1/3	0.5	1990s Lag 1/3
ES112	Lugo	PR	181,900	172,400	162,700	-0.5	1980s Lag 1/3	-0.6	1990s Lag 1/3
ES113	Orense	PR	183,300	159,100	127,400	-1.4	1980s Lag 1/3	-2.4	1990s Lag 1/3
ES114	Pontevedra	IN	339,200	329,400	343,500	-0.3	1980s Lag 1/3	0.5	1990s Lag 1/3
ES120	Principado de Asturias	IN	389,400	382,800	369,400	-0.2	1980s Lag 1/3	-0.4	1990s Lag 1/3
ES130	Cantabria	IN	182,400	174,100	199,200	-0.5	1980s Lag 1/3	1.5	1990s Mid 1/3
ES211	Álava	IN	100,200	110,800	132,200	1.0	1980s Mid 1/3	2.0	1990s Mid 1/3
ES212	Guipúzcoa	PU	234,400	245,500	298,900	0.5	1980s Lag 1/3	2.2	1990s Lead 1/3
ES213	Vizcaya	PU	370,600	397,600	451,800	0.7	1980s Lag 1/3	1.4	1990s Mid 1/3
ES220	Comunidad Foral de Navarra	IN	177,900	205,500	245,300	1.5	1980s Mid 1/3	2.0	1990s Mid 1/3
ES230	La Rioja	IN	88,000	103,600	113,100	1.6	1980s Lead 1/3	1.0	1990s Lag 1/3
ES241	Huesca	PR	75,800	78,200	87,300	0.3	1980s Lag 1/3	1.2	1990s Mid 1/3
ES242	Teruel	PR	51,200	50,400	51,000	-0.2	1980s Lag 1/3	0.1	1990s Lag 1/3
ES243	Zaragoza	IN	262,500	324,200	353,400	2.1	1980s Lead 1/3	1.0	1990s Lag 1/3
ES300	Comunidad de Madrid	PU	1,359,900	1,773,800	2,294,500	2.7	1980s Lead 1/3	2.9	1990s Lead 1/3
ES411	Avila	PR	52,300	59,200	61,600	1.2	1980s Mid 1/3	0.4	1990s Lag 1/3
ES412	Burgos	IN	126,700	137,300	140,700	0.8	1980s Mid 1/3	0.3	1990s Lag 1/3
ES413	León	IN	199,900	180,600	172,900	-1.0	1980s Lag 1/3	-0.5	1990s Lag 1/3
ES414	Palencia	PR	55,700	64,300	66,600	1.4	1980s Mid 1/3	0.4	1990s Lag 1/3
ES415	Salamanca	IN	110,900	113,000	114,800	0.2	1980s Lag 1/3	0.2	1990s Lag 1/3
ES416	Segovia	PR	51,300	58,000	62,900	1.2	1980s Mid 1/3	0.9	1990s Lag 1/3
ES417	Soria	PR	31,100	32,300	37,000	0.4	1980s Lag 1/3	1.5	1990s Mid 1/3
ES418	Valladolid	IN	144,400	172,300	196,300	1.8	1980s Lead 1/3	1.5	1990s Mid 1/3
ES419	Zamora	PR	73,800	64,900	67,100	-1.3	1980s Lag 1/3	0.4	1990s Lag 1/3
ES421	Albacete	PR	96,100	110,500	124,500	1.4	1980s Mid 1/3	1.3	1990s Mid 1/3

ES422	Ciudad Real	PR	124,800	141,700	161,600	1.3	1980s Mid 1/3	1.5	1990s Mid 1/3
ES423	Cuenca	PR	64,900	62,600	69,000	-0.4	1980s Lag 1/3	1.1	1990s Lag 1/3
ES424	Guadalajara	IN	41,200	48,200	60,600	1.6	1980s Mid 1/3	2.6	1990s Lead 1/3
ES425	Toledo	PR	142,700	155,000	193,400	0.8	1980s Mid 1/3	2.5	1990s Lead 1/3
ES431	Badajoz	PR	161,800	178,700	206,100	1.0	1980s Mid 1/3	1.6	1990s Mid 1/3
ES432	Cáceres	PR	119,300	123,900	143,900	0.4	1980s Lag 1/3	1.7	1990s Mid 1/3
ES511	Barcelona	PU	1,412,600	1,669,100	2,089,400	1.7	1980s Lead 1/3	2.5	1990s Lead 1/3
ES512	Gerona	IN	182,700	225,200	263,000	2.1	1980s Lead 1/3	1.7	1990s Mid 1/3
ES513	Lérida	PR	141,200	141,300	166,900	0.0	1980s Lag 1/3	1.9	1990s Mid 1/3
ES514	Tarragona	IN	181,600	211,300	260,000	1.5	1980s Mid 1/3	2.3	1990s Lead 1/3
ES521	Alicante	IN	360,500	396,900	530,100	1.0	1980s Mid 1/3	3.3	1990s Lead 1/3
ES522	Castellón de la Plana	IN	148,700	183,600	216,300	2.1	1980s Lead 1/3	1.8	1990s Mid 1/3
ES523	Valencia	PU	597,000	774,100	955,800	2.6	1980s Lead 1/3	2.4	1990s Lead 1/3
ES530	Baleares	IN	212,400	265,700	343,600	2.3	1980s Lead 1/3	2.9	1990s Lead 1/3
ES611	Almería	IN	116,000	144,900	187,800	2.2	1980s Lead 1/3	2.9	1990s Lead 1/3
ES612	Cádiz	IN	249,300	283,800	331,800	1.3	1980s Mid 1/3	1.8	1990s Mid 1/3
ES613	Córdoba	PR	173,000	209,300	241,400	1.9	1980s Lead 1/3	1.6	1990s Mid 1/3
ES614	Granada	IN	179,300	202,300	253,700	1.2	1980s Mid 1/3	2.5	1990s Lead 1/3
ES615	Huelva	PR	108,000	125,900	145,200	1.5	1980s Mid 1/3	1.6	1990s Mid 1/3
ES616	Jaén	PR	160,800	173,500	211,900	0.8	1980s Lag 1/3	2.2	1990s Lead 1/3
ES617	Málaga	IN	266,200	310,100	437,300	1.5	1980s Mid 1/3	3.9	1990s Lead 1/3
ES618	Sevilla	IN	355,900	452,000	588,200	2.4	1980s Lead 1/3	3.0	1990s Lead 1/3
ES620	Murcia	IN	269,900	337,600	439,000	2.3	1980s Lead 1/3	3.0	1990s Lead 1/3
ES631	Ceuta (ES)	PU	11,055	18,975	22,715	5.6	1980s Lead 1/3	2.0	1990s Mid 1/3
ES632	Melilla (ES)	PU	9,045	15,525	18,585	5.6	1980s Lead 1/3	2.0	1990s Lead 1/3
ES701	Las Palmas	PU	186,600	227,000	220,500	2.0	1980s Lead 1/3	-0.3	1990s Lag 1/3
ES702	Santa Cruz De Tenerife	IN	188,500	214,700	321,800	1.3	1980s Mid 1/3	4.6	1990s Lead 1/3
ESPTOT	SPAIN TOTAL	IN	#####	#####	#####	1.4	(e) Country average	2.0	(e) Country average
SE011	Stockholms-lan	PU	794,141	973,500	969,800	2.1	1980s Lead 1/3	0.0	1990s Lead 1/3
SE021	Uppsala-lan	IN	116,001	128,400	122,100	1.0	1980s Mid 1/3	-0.6	1990s Lead 1/3
SE022	Sodermanlands-lan	IN	118,633	125,000	105,600	0.5	1980s Lag 1/3	-1.9	1990s Lag 1/3
SE023	Ostergotlands-lan	IN	188,354	208,500	185,600	1.0	1980s Mid 1/3	-1.3	1990s Mid 1/3
SE024	Orebro-lan	PR	129,209	137,800	125,400	0.6	1980s Lag 1/3	-1.0	1990s Lead 1/3
SE025	Vastmanlands-lan	IN	124,505	133,300	113,200	0.7	1980s Lag 1/3	-1.8	1990s Lag 1/3
SE041	Blekinge-lan	PR	70,725	76,400	68,700	0.8	1980s Mid 1/3	-1.2	1990s Mid 1/3
SE044	Skåne-lan	IN	492,825	549,200	494,600	1.1	1980s Lead 1/3	-1.2	1990s Mid 1/3
SE061	Varmlands-lan	PR	132,171	142,500	120,000	0.8	1980s Lag 1/3	-1.9	1990s Lag 1/3
SE062	Dalarnas-lan	PR	130,893	143,800	125,900	0.9	1980s Mid 1/3	-1.5	1990s Mid 1/3
SE063	Gavieborgs-lan	PR	135,357	146,100	127,000	0.8	1980s Lag 1/3	-1.5	1990s Lag 1/3
SE071	Vasternorrlands-lan	PR	122,988	135,200	114,400	1.0	1980s Mid 1/3	-1.8	1990s Lag 1/3
SE072	Jamtlands-lan	PR	61,337	68,500	59,400	1.1	1980s Lead 1/3	-1.6	1990s Lag 1/3
SE081	Vasterbottens-lan	PR	115,110	130,700	117,400	1.3	1980s Lead 1/3	-1.2	1990s Mid 1/3
SE082	Norrbottnens-lan	PR	120,914	133,800	113,200	1.0	1980s Mid 1/3	-1.8	1990s Lag 1/3
SE091	Jonkopings-lan	PR	147,656	171,100	158,300	1.5	1980s Lead 1/3	-0.9	1990s Lead 1/3
SE092	Kronobergs-lan	PR	83,098	94,900	87,100	1.3	1980s Lead 1/3	-0.9	1990s Lead 1/3
SE093	Kalmar-lan	PR	113,392	121,100	106,500	0.7	1980s Lag 1/3	-1.4	1990s Mid 1/3
SE094	Gotlands-lan	PR	27,043	28,500	26,200	0.5	1980s Lag 1/3	-0.9	1990s Lead 1/3
SE0A1	Hallands-lan	PR	110,824	119,700	111,700	0.8	1980s Mid 1/3	-0.8	1990s Lead 1/3

SE0A2	Västra Götalands-lan	IN	676,559	781,700	706,100	1.5	1980s Lead 1/3	-1.1	1990s Mid 1/3
SWETOT	SWEDEN TOTAL	IN	4,011,735	4,549,700	4,158,200	1.3	(e) Country average	-1.0	(e) Country average

Table A3.1. Annualised rate of growth of total employment at place of work due to the "National effect", "Structural effect" and "Territorial dynamics" in predominantly rural regions, 1990 to 2000

	Top one-third				Middle one-third				Bottom one-third				All predominantly rural regions			
	National effect	Structural effect	Territorial dynamics	Total growth	National effect	Structural effect	Territorial dynamics	Total growth	National effect	Structural effect	Territorial dynamics	Total growth	National effect	Structural effect	Territorial dynamics	Total growth
Belgium	1.3	-0.3	0.7	1.6	...	...	...	...	...	...	...	...	1.3	-0.3	0.7	1.6
Canada	1.2	-0.1	1.1	2.2	1.2	-0.1	-0.3	0.8	1.2	-0.1	-1.5	-0.5	1.2	-0.1	-0.1	1.0
France	0.4	-0.1	0.6	0.9	0.4	-0.2	0.3	0.5	0.4	-0.3	-0.1	0.0	0.4	-0.2	0.2	0.4
Germany	-0.7	-0.1	1.4	0.5	-0.7	0.2	-0.2	-0.8	-0.7	-0.1	-1.7	-2.5	-0.7	-0.1	0.8	0.1
Greece	0.8	0.7	0.3	1.8	0.8	-0.6	0.0	0.2	0.8	-0.6	-1.0	-0.8	0.8	-0.5	-0.4	-0.1
Hungary	-2.0	-0.6	1.1	-1.5	-2.0	-0.5	0.2	-2.3	-2.0	-0.6	-0.3	-3.0	-2.0	-0.6	0.2	-2.4
Japan	0.2	-0.2	0.4	0.4	0.2	-0.2	0.1	0.1	0.2	-0.3	-0.1	-0.2	0.2	-0.2	0.0	0.0
Mexico	3.9	-0.4	2.1	5.5	3.9	-0.8	0.5	3.6	3.9	-1.1	-0.7	2.1	3.9	-0.8	0.4	3.5
Netherlands	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
New Zealand	...	...	...	...	2.1	-0.2	0.2	2.1	...	...	...	...	2.1	-0.2	0.2	2.1
Norway	2.7	0.0	1.1	3.8	2.7	-0.2	-0.3	2.2	2.7	-0.3	-1.0	1.4	2.7	-0.2	-0.4	2.0
Spain	2.0	-0.3	0.6	2.4	2.0	-0.3	-0.1	1.6	2.0	-0.8	-1.5	-0.4	2.0	-0.5	-0.4	1.1
Sweden	-1.0	-0.2	0.3	-0.9	-1.0	-0.1	-0.2	-1.3	-1.0	-0.1	-0.7	-1.8	-1.0	-0.1	-0.2	-1.3
United States	1.3	-0.1	1.1	2.3	1.3	-0.2	0.0	1.1	1.3	-0.3	-0.8	0.2	1.3	-0.2	0.2	1.3

Source: OECD Territorial Database.

Table A3.2. Annualised rate of growth of total employment at place of work due to the "National effect", "Structural effect" and "Territorial dynamics" in intermediate regions, 1990 to 2000

	Intermediate regions															
	* * * Dynamics of growth of total employment at place of work, 1990 to 2000 * * *															
	Top one-third				Middle one-third				Bottom one-third				All intermediate regions			
	National effect	Structural effect	Territorial dynamics	Total growth	National effect	Structural effect	Territorial dynamics	Total growth	National effect	Structural effect	Territorial dynamics	Total growth	National effect	Structural effect	Territorial dynamics	Total growth
Belgium	1.3	0.2	0.5	2.0	1.3	0.1	0.0	1.4	1.3	0.1	-0.5	0.8	1.3	0.1	-0.2	1.2
Canada	1.2	0.0	1.2	2.5	1.2	0.0	-0.5	0.7	1.2	0.0	-1.4	-0.2	1.2	0.0	0.1	1.3
France	0.4	0.0	0.5	0.9	0.4	-0.1	0.1	0.4	0.4	-0.2	-0.1	0.2	0.4	0.0	0.3	0.7
Germany	-0.7	-0.1	0.6	-0.3	-0.7	-0.1	0.2	-0.7	-0.7	0.0	-0.8	-1.5	-0.7	-0.1	0.0	-0.9
Greece	0.8	-0.3	0.4	0.9	0.8	-0.3	-0.3	0.2	...	...	...	...	0.8	-0.3	0.3	0.8
Hungary	-2.0	-0.3	1.0	-1.3	-2.0	-0.6	0.9	-1.7	-2.0	-0.1	-1.4	-3.5	-2.0	-0.2	0.0	-2.3
Japan	0.2	-0.1	0.4	0.4	0.2	0.0	-0.1	0.1	0.2	-0.2	-0.2	-0.1	0.2	-0.1	0.1	0.2
Mexico	3.9	0.0	0.9	4.8	3.9	-0.3	-0.1	3.4	3.9	-0.5	-0.8	2.6	3.9	-0.2	0.3	4.0
Netherlands	2.2	-0.1	1.3	3.4	2.2	0.0	0.1	2.4	2.2	-0.1	-0.7	1.4	2.2	-0.1	0.7	2.8
New Zealand	2.1	-0.1	0.7	2.7	2.1	0.0	-0.3	1.8	2.1	-0.2	-0.8	1.1	2.1	-0.1	-0.1	1.8
Norway	2.7	0.2	0.4	3.3	2.7	0.0	-0.2	2.4	...	...	...	...	2.7	0.1	0.0	2.7
Spain	2.0	0.1	1.1	3.2	2.0	0.0	-0.2	1.7	2.0	-0.3	-1.4	0.3	2.0	-0.1	0.0	2.0
Sweden	-1.0	0.1	0.3	-0.6	-1.0	0.0	-0.1	-1.2	-1.0	-0.2	-0.7	-1.8	-1.0	-0.1	-0.2	-1.2
United States	1.3	0.1	0.8	2.2	1.3	0.1	-0.3	1.1	1.3	0.1	-1.2	0.2	1.3	0.1	0.1	1.5

Source: OECD Territorial Database.

Table A3.3. Annualised rate of growth of total employment at place of work due to the "National effect", "Structural effect" and "Territorial dynamics" in predominantly urban regions, 1990 to 2000

	Predominantly urban regions															
	*** Dynamics of growth of total employment at place of work, 1990 to 2000 ***															
	Top one-third				Middle one-third				Bottom one-third				All predominantly urban regions			
	National effect	Structural effect	Territorial dynamics	Total growth	National effect	Structural effect	Territorial dynamics	Total growth	National effect	Structural effect	Territorial dynamics	Total growth	National effect	Structural effect	Territorial dynamics	Total growth
Belgium	1.3	-0.1	0.6	1.7	1.3	0.0	0.1	1.4	1.3	0.1	-0.4	0.9	1.3	0.0	0.0	1.3
Canada	1.2	0.0	0.8	2.1	1.2	0.1	-0.7	0.6	1.2	0.1	-1.2	0.1	1.2	0.1	0.0	1.3
France	...	...	...	...	0.4	0.1	-0.1	0.4	0.4	0.4	-1.3	-0.4	0.4	0.3	-0.6	0.1
Germany	-0.7	0.1	0.3	-0.3	-0.7	0.0	0.1	-0.6	-0.7	0.0	-0.7	-1.4	-0.7	0.0	-0.1	-0.8
Greece	0.8	0.8	0.1	1.7	...	...	...	...	...	...	...	...	0.8	0.8	0.1	1.7
Hungary	-2.0	1.1	-0.3	-1.3	...	...	...	...	...	...	...	...	-2.0	1.1	-0.3	-1.3
Japan	0.2	0.1	0.3	0.6	...	...	...	...	0.2	0.3	-0.7	-0.2	0.2	0.2	-0.1	0.3
Mexico	3.9	0.6	0.5	5.0	3.9	0.6	-0.6	3.9	3.9	0.9	-2.6	2.2	3.9	0.7	-0.5	4.1
Netherlands	2.2	-0.2	0.6	2.6	2.2	0.0	0.0	2.3	2.2	0.0	-0.4	1.8	2.2	0.0	-0.1	2.1
New Zealand	2.1	0.1	0.6	2.9	2.1	0.3	-1.0	1.5	...	...	...	...	2.1	0.2	0.2	2.5
Norway	2.7	0.5	1.2	4.3	...	...	...	...	...	...	...	...	2.7	0.5	1.2	4.3
Spain	2.0	0.3	0.3	2.6	2.0	0.2	-0.8	1.5	2.0	0.4	-2.7	-0.3	2.0	0.3	0.1	2.4
Sweden	-1.0	0.3	0.6	0.0	...	...	...	...	...	...	...	...	-1.0	0.3	0.6	0.0
United States	1.3	0.1	0.8	2.2	1.3	0.1	-0.4	1.0	1.3	0.2	-1.2	0.3	1.3	0.1	-0.4	1.1

Source: OECD Territorial Database.

Table A4.1 Number of regions by dynamics of growth of total employment at place of work, 1980 to 1990 and 1990 to 2000

		Predominantly urban regions				Intermediate regions				Predominantly rural regions				All regions			
	Dynamics of employment growth, 1980 to 1990	*** Dynamics of employment growth, 1990 to 2000 ***															
		Top 1/3	Middle 1/3	Bottom 1/3	Total	Top 1/3	Middle 1/3	Bottom 1/3	Total	Top 1/3	Middle 1/3	Bottom 1/3	Total	Top 1/3	Middle 1/3	Bottom 1/3	Total
Belgium	Top 1/3		2		2	1			1	1			1	2	2		4
	Middle 1/3	2		1	3									2		1	3
	Bottom 1/3			2	2		1	1	2						1	3	4
	Total	2	2	3	7	1	1	1	3	1			1	4	3	4	11
Canada	Top 1/3	14	3	2	18	11	5	1	17	35	20	6	61	60	28	9	96
	Middle 1/3	2	1		3	4	6	5	15	19	33	26	78	25	40	31	96
	Bottom 1/3		3	1	4		2	3	5	11	23	53	87	11	28	57	96
	Total	16	7	2	25	15	13	9	37	65	76	85	226	96	96	96	288
France	Top 1/3	2	2	3	7	12	2		14	6	5		11	20	9	3	32
	Middle 1/3		2		2	5	4	2	11	7	8	4	19	12	14	6	32
	Bottom 1/3		1	1	2		4	2	6		4	20	24	0	9	23	32
	Total	2	5	4	11	17	10	4	31	13	17	24	54	32	32	32	96
Hungary	Top 1/3					2			2	1	2	1	4	3	2	1	6
	Middle 1/3					1			1	1	2	3	6	2	2	3	7
	Bottom 1/3	1			1		1	2	3		2		2	1	3	2	6
	Total	1			1	3	1	2	6	2	6	4	12	6	7	6	19
Japan	Top 1/3	5		2	7	7			7	1			1	13	0	2	15
	Middle 1/3	1			1	1	9		10		2	3	5	2	11	3	16
	Bottom 1/3							5	5		5	6	11	0	5	11	16
	Total	6		2	8	8	9	5	22	1	7	9	17	15	16	16	47

Netherlands	Top 1/3		1	1	2	1		1	2	...	...	...	...	1	1	2	4
	Middle 1/3		2	1	3	1			1	...	...	...	...	1	2	1	4
	Bottom 1/3	1		1	2	1	1		2	...	...	...	...	2	1	1	4
	Total	1	3	3	7	3	1	1	5	...	...	...	...	4	4	4	12
Sweden	Top 1/3	1			1		2		2	2	1	1	4	3	3	1	7
	Middle 1/3					1	1		2	1	2	2	5	2	3	2	7
	Bottom 1/3							2	2	2	1	2	5	2		4	7
	Total	1			1	1	3	2	6	5	4	5	14	7	7	7	21
United States	Top 1/3	5	5		10	27	11	2	40	122	59	24	205	154	75	26	255
	Middle 1/3	1	2	5	8	5	14	6	25	57	92	73	222	63	108	84	255
	Bottom 1/3							4	4	38	72	141	251	38	72	145	255
	Total	6	7	5	18	32	25	12	69	217	223	238	678	255	255	255	765
Sum of selected OECD countries	Top 1/3	27	13	8	47	61	20	4	85	168	87	32	287	256	120	44	419
	Middle 1/3	6	7	7	20	18	34	13	65	85	139	111	335	109	180	131	420
	Bottom 1/3	2	4	5	11	1	9	19	29	51	107	222	380	54	119	246	420
	Total	35	24	19	78	80	63	36	179	304	333	365	1,002	419	420	420	1,259

Figure A4.1 Distribution of pr, intermediate rural and predominantly urban regions by dynamics of total employment growth in Belgium, 1980-2000

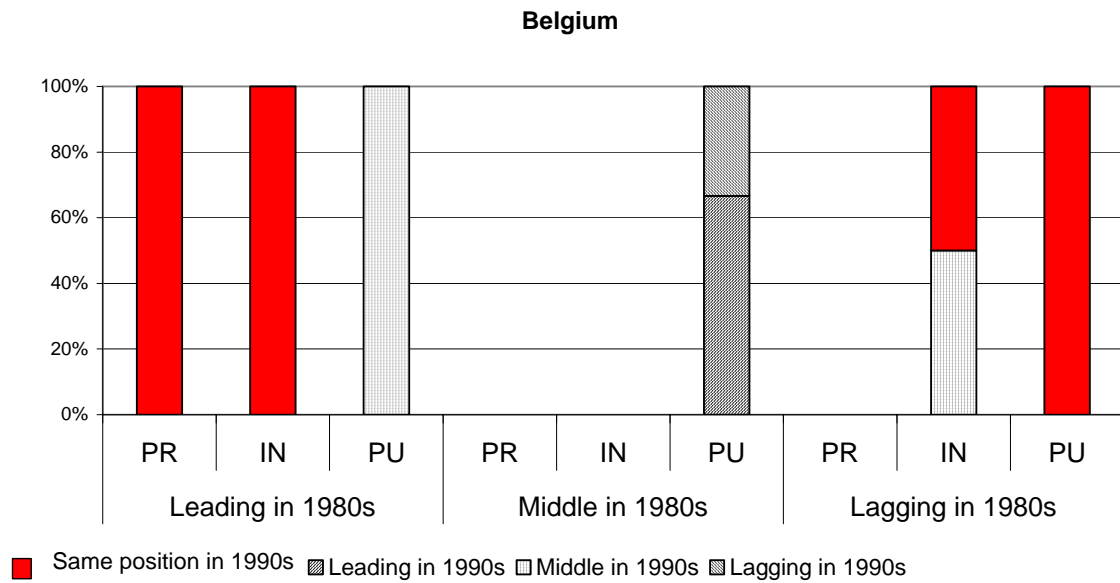


Figure A4.2 Distribution of pr, intermediate rural and predominantly urban regions by dynamics of total employment growth in Canada, 1980-2000

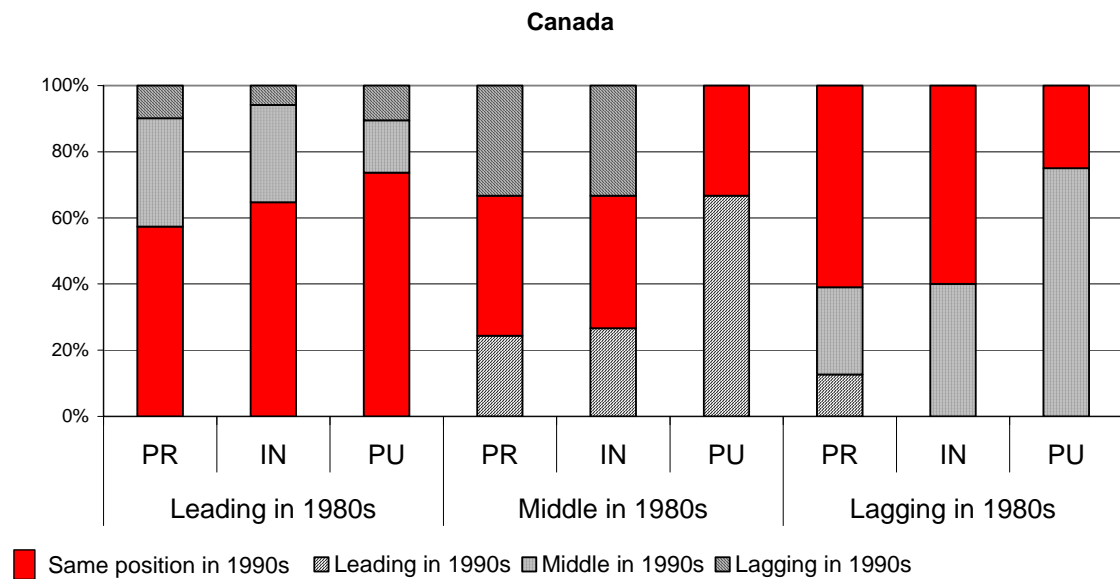


Figure A4.3 Distribution of pr, intermediate rural and predominantly urban regions by dynamics of total employment growth in France, 1980-2000

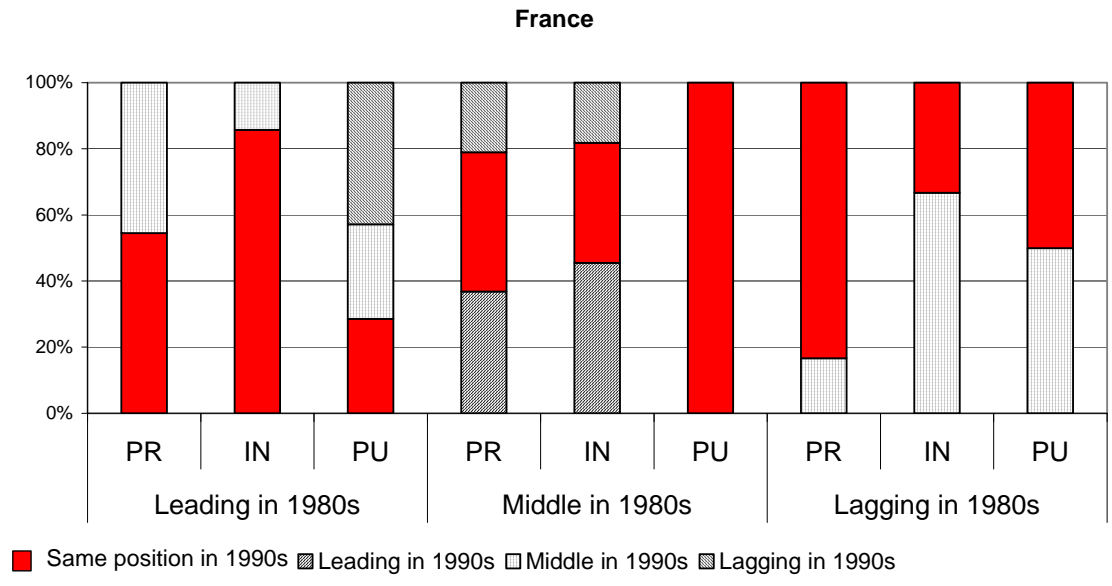


Figure A4.4 Distribution of pr, intermediate rural and predominantly urban regions by dynamics of total employment growth in Hungary, 1980-2000

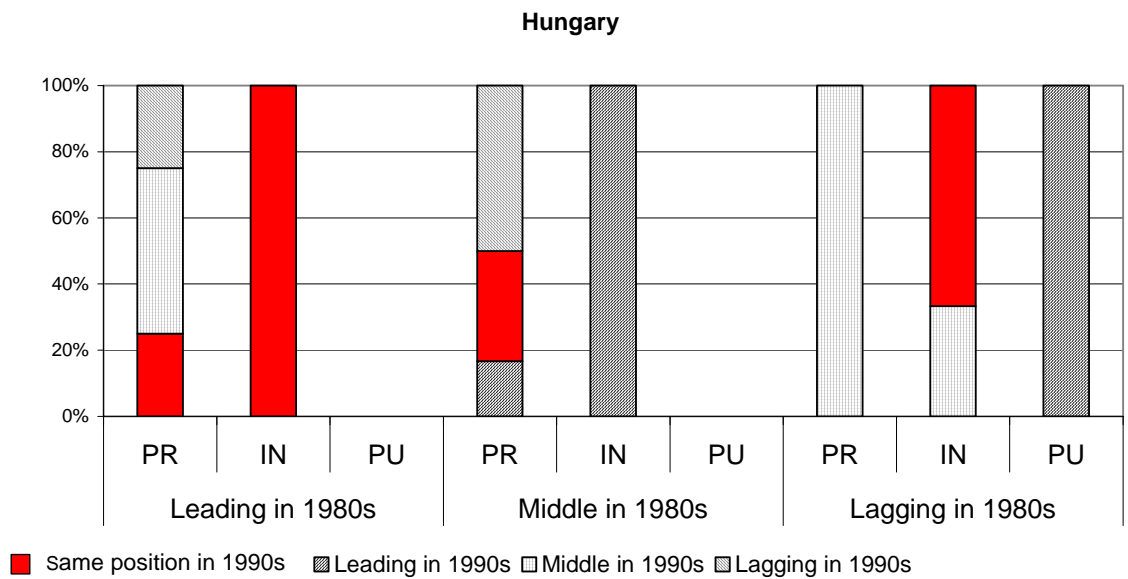


Figure A4.5 Distribution of pr, intermediate rural and predominantly urban regions by dynamics of total employment growth in Japan, 1980-2000

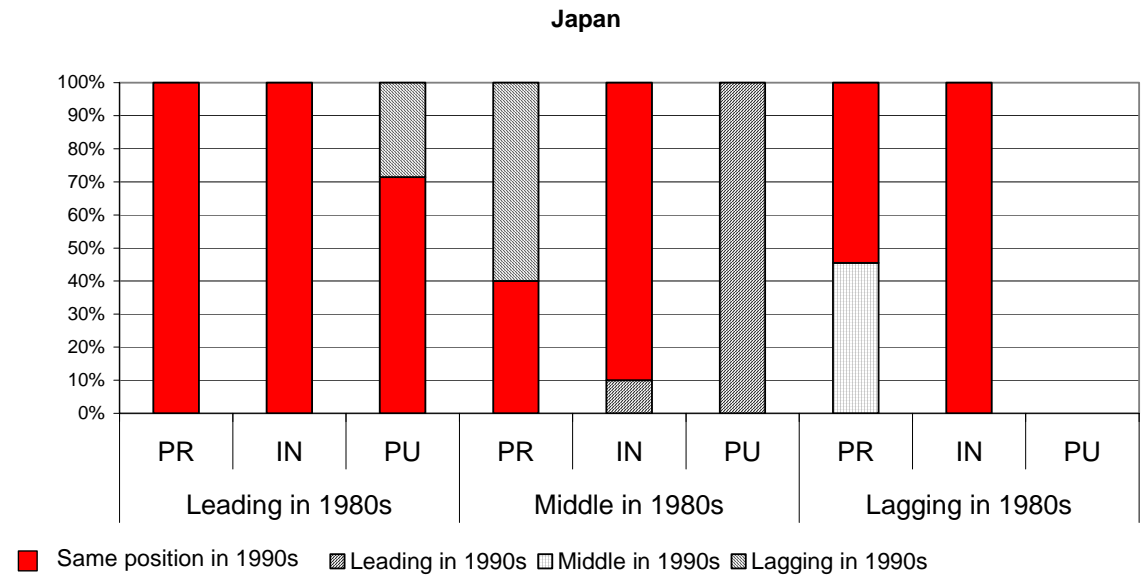


Figure A4.6 Distribution of pr, intermediate rural and predominantly urban regions by dynamics of total employment growth in the Netherlands, 1980-2000

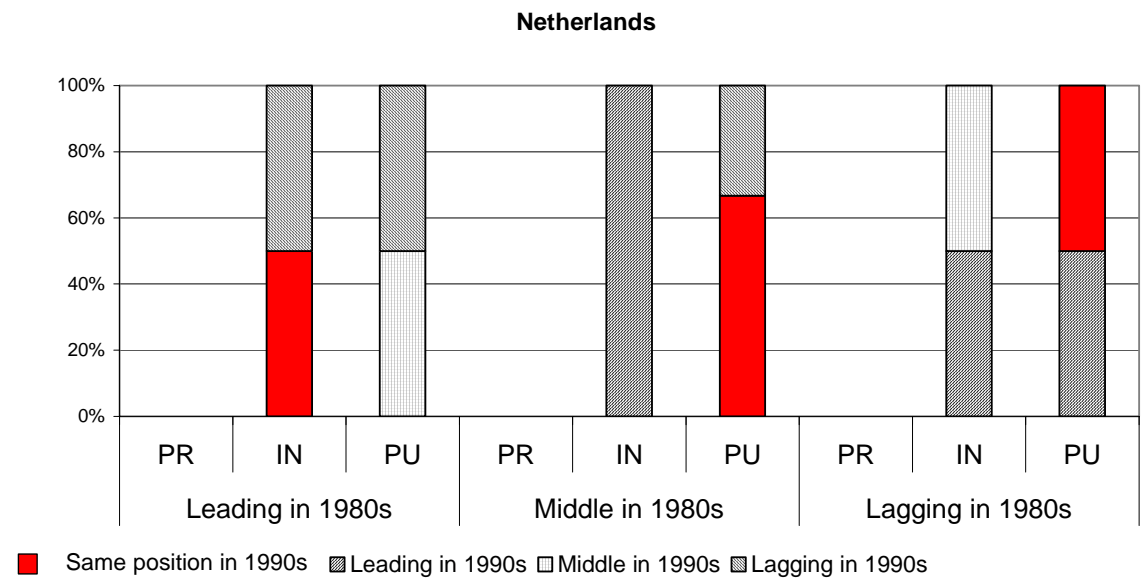


Figure A4.7 Distribution of pr, intermediate rural and predominantly urban regions by dynamics of total employment growth in Sweden, 1980-2000

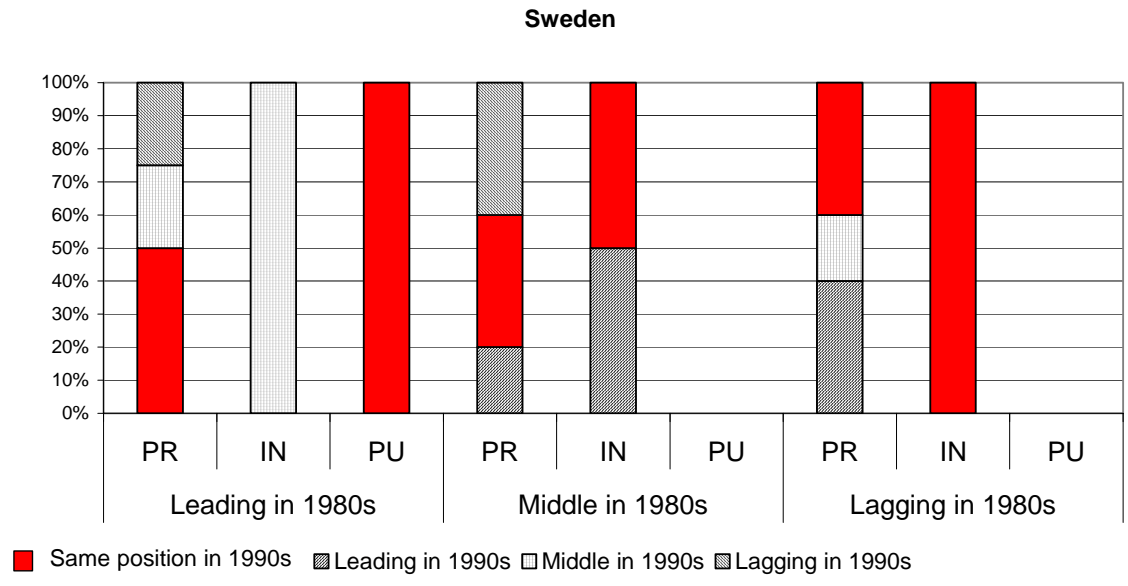


Figure A4.8 Distribution of pr, intermediate rural and predominantly urban regions by dynamics of total employment growth in the US, 1980-2000

