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Revisiting the Old Industrial Region: Adaptation and Adjustment in an Integrating Europe

Andy Cumbers* Kean Birch* Danny MacKinnon+

University of Glasgow University of Glasgow University of Aberdeen

*Centre for Public Policy for Regions, University of Glasgow. Corresponding Author: Andy Cumbers (acumbers@geog.gla.ac.uk)

+University of Aberdeen

ABSTRACT

The position of old industrial regions (OIRs) has been neglected in recent regional development research, partly as a result of dominant discourses concerned with concepts such as the knowledge economy, learning regions and the new regionalism. One outcome of this conceptual overload is that empirical research has typically been confined to all too familiar case studies of regional success that tell a rather partial story. Yet the extension of the European integration project eastwards alongside growing competition from the urban and regional 'hotspots' of the global south prompts a series of largely unconsidered questions about the ability of OIRs to achieve sustainable economic development and social cohesion in the years ahead. Lacking the capital, technological and labour assets of more dynamic cities and regions, and with the historic legacy of deindustrialisation and the decline of traditional sectors, OIRs face some important dilemmas of adjustment and adaptation.

In this paper our purpose is to engage with these issues through some preliminary empirical research into the recent fortunes of OIRs in Western Europe's largest economies: France, Germany, Spain and the UK. Drawing upon material from the Eurostat database, our results hint at interesting patterns of divergence in the performance of OIRs in terms of processes of economic restructuring, employment change and social cohesion. In particular some important variations emerge in the trajectory of regions within different national contexts. Drawing upon recent thinking relating to commodity chains and global production networks, our results lead us to pose a series of questions that relate to the way regions are being repositioned within broader political and economic networks as part of unfolding processes of uneven development and changing spatial divisions of labour.

1. INTRODUCTION

Since 1997 the United Kingdom has lost more than a million manufacturing jobs as the proportion of manufacturing employment in this country has declined to 11 % by 2005, with another 0.6 % in 'Energy and Water' and 6.8 % in 'Construction' employment, making the total for these three sectors (i.e. industry employment) just over 18 %. In 1997 there were 4 ½ million people employed in manufacturing (15.8 %) which fell by around 25 % to 3.38 million in 2005 (11 %), although this structural change has disproportionately affected old industrial regions (OIRs) most as they have had to adjust to this sharp decline (Source: Office of National Statistics).[i] In many ways, the current UK and European regional academic and policy debates focused on a competitiveness-driven agenda that promotes the development of 'knowledge-driven' or 'knowledge-based' economies, which are meant to compete for shares of both national and global markets through ongoing processes of innovation and technology development (see Gardiner et al 2004; Brown 2005), have been unable to address this continuing process of uneven development.

The focus on regional 'competitiveness' in both discourses has hidden the dramatic impact that the industrial structure changes have had upon regional economic performance and development, as the competitive position of these OIRs has been neglected in debates within the regional studies field, where research is dominated by theories centred upon concepts such as the knowledge economy (Cooke 2002), learning regions (Morgan 1997) and the new regionalism (Storper 1997). Furthermore, in the UK regional policy has, to some extent at least, moved away from the promotion of and search for inward investment towards the expansion of indigenous capacity as the government has adopted the perspective that 60 % of regional GDP differences can be explained in terms of 'productivity' (HM Treasury et al 2003). In these arguments regional productivity is characterised as driven by five factors: skills, investment, innovation, enterprise and competition (HM Treasury 2001). Concomitant with this national policy shift is the change at the European level where the policy emphasis embedded in the 2000 Lisbon Agenda (European Commission 2000) and the follow-up

Sapir Group, formed in 2002, is aimed at enabling Europe to "become the most competitive and dynamic-knowledge-based economy with sustainable economic growth and greater social cohesion" (The Sapir Group 2005: 962).

However, the policy focus at both the national and supranational scale entails a number of problematic assumptions around the conceptualisation of productivity and the closely linked notion of 'competitiveness'; a theory that remains highly contentious (see Krugman 1996; Kitson et al 2004; Bristow 2005). One initial concern is that present policy, as Steve Fothergill (2005: 662) argues, has a "narrow base of evidence", reliant, perhaps unsurprisingly, upon mainstream economic sources that embody an ahistorical and asocial understanding of regional development and economic performance. For example, the lack of concern with differences in industrial structure and divisions of labour, both continuing issues in wider regional research for decades, means that the policy focus on productivity ignores the "elementary observation that different industries and services have different levels of value added per head" (ibid.: 663). Such policy focus could also miss how processes of deindustrialisation leave regions with limited indigenous capacity because (a) the region has been reliant on large-scale production units with their own internalised set of intermediate services and capabilities, and (b) long-standing industries may rely more upon informal relationships that decline simultaneously with the hollowing-out of industrial sectors (see Hassink and Shin 2005).

A secondary concern follows on from these last two points and relates to the problem of regional lock-in through path dependency (Dosi 1988; Arthur 1989, 1999). Because regional economies that are dependent upon particular industrial sectors, like manufacturing, are constituted through the operation of that particular industrial sector, the institutional and organisational actors in that region embed processes of production, consumption and linkages that embody particular structures of that sector – i.e. path dependence – which sits uneasily with the focus of policy on drivers of growth and innovation because the latter privileges the status quo (see Chapman et al 2004). Since regional performance has previously benefited from these embodied features there is little motivation to alter institutions or organisations, rather they are strengthened to more

deeply embed the specific processes; i.e. locked-in. Consequently, as industrial structures change, whether through deliberate policy or accident, regional institutions and organisations lack the capacity to respond to this change through adaptation or adjustment. According to Tödtling and Trippl (2004) there is a lack of research on the renewal of such regions in the regional studies literature, which instead tends to focus on the development of emergent 'clusters' and innovation systems (however, see Pike 2001; Chapman et al 2004; Hudson 2005). The irony of this research agenda is that the so-called 'new regionalism' (Lovering 1999) needs to be more suspicious of the embedding and institutionalisation of particular production systems or networks in specific regions because of the possibility that such processes will lock-in those regions to certain trajectories.

In light of these issues, we have focused this paper on recent economic and employment performances across OIRs in EU15 countries, as a preliminary analysis of the context in which processes of adaptation and adjustment occur in regions that have experienced and are still experiencing industrial restructuring. These OIRs have seen a recent recovery in employment that can be attributed, in part, to considerable levels of regional policy intervention and active labour market policies at European, national and local scales, alongside the growth of service-related forms of employment. With the safety net of EU regional policy assistance being withdrawn or scaled back in the near future, and OIRs becoming more exposed to competition from other regions, the way that OIRs are becoming repositioned within changing spatial divisions of labour both at the European and the global levels becomes of critical importance. In this respect, lacking the capital, technological and labour assets of more dynamic cities and regions, and with the historic legacy of deindustrialisation and the decline of traditional sectors, OIRs face some important dilemmas of adjustment and adaptation.

In this paper we engage with these issues through some preliminary empirical research into the recent fortunes of OIRs in four of Western Europe's largest economies: France, Germany, Spain and the UK. Drawing upon material from the Eurostat database, our point of departure is to compare the relative performance of selected OIRs within

different national contexts over the period 1996-2002. We start by comparing different performance indicators, namely gross domestic product (GDP), GDP purchasing power standards (PPS), and employment. This reveals quite startling differences, particularly between GDP performance and employment performance. This in turn leads us to question the utility of GDP and the discourse of regional competitiveness, and to focus upon employment creation in order to take a broader social perspective on regional development and adaptation. We therefore unpack employment performance across the different regions by focusing upon the different components of employment change before concluding with some initial speculation about the broader processes at work in shaping different regional development pathways.

2. REVISITING OLD INDUSTRIAL REGIONS

EU Enlargement and Less Favoured Regions

The European Union (EU) has changed dramatically since its origins in the Benelux Customs Union (1948) and the Treaty of Paris (1951) that established the European Coal and Steel Community (ECSC). The successive waves of enlargement have broadened the EU so that it now covers 25 countries from Ireland to Estonia, and Finland to Malta (see **Figure 1**), whilst the expansion of supra-national governance structures have deepened the policy influence and impact of its decision-making (Williams 1992, 1996; Smith 2002; Leibovitz 2003). As the EC (now EU) expanded throughout this period, it has had to adapt its policies to address the uneven development of member and accession countries and their regional economies through a range of policy tools. Created by the 1957 Treaty of Rome, the European Social Fund (ESF) is the oldest form of 'structural funding' in the EU, followed by the 1962 establishment of the Common Agricultural Policy (CAP) (Williams 1992). With the accession of Britain in 1973, there was increased support for regional assistance leading to the creation of the European Regional Development Fund (ERDF) designed to alleviate the problems of deindustrialisation in OIRs in the UK and poor development in the Italian Mezzorgiorno region (Tondl 2001; Armstrong and Taylor 2004; EC Regional Policy DG 2004). During the 1980s, alongside the implementation of the Single European Market (SEM) and the accession of Greece,

Portugal and Spain, these EU level Structural Fund programmes were reformed (in 1988) and directed at assisting lagging regions and reducing imbalances, a policy reinforced with the creation of the Cohesion Funds in 1994 (Tondl 2001). Despite the growing importance of these European level programmes, it is crucial to stress that public expenditure is still predominantly based at the national scale with public spending by European national governments representing between 40 % and 60% of GDP compared with European spending capped at around 1.2 % of EU GDP (Hudson 2003: 56; see also Dunford and Perrons 1994).

Figure 1: Map of European Union Enlargement

The extension of the European integration project eastwards alongside growing competition from the urban and regional 'hotspots' of the global south prompts a series of largely unconsidered questions about the ability of OIRs to achieve sustainable economic development and social cohesion in the years ahead, especially after nearly half a century of de-industrialisation and uneven development. The peak of absolute industrial

employment in Europe was 1970, although several countries such as the Netherlands, Switzerland, Sweden and the UK peaked during the 1960s with the UK, for example, reaching a relative peak in industrial employment in 1960; the first in Europe (Townsend 1997; Sadler 2000). Whilst both the USA and Canada reached their relative peaks before the 1960s, the later zenith of relative industrial employment in Europe was delayed by several decades (see **Table 1**). By the early 1980s most European countries had reached the relative peak of industrial employment, even if some countries took until the early 1990s to reach the absolute peak (e.g. Portugal and Greece) (Townsend 1997).

Table 1: Relative Industrial Employment in European Union Countries 1965 and 1995

	Relative Industrial Labour Force (%)			
	1965	**1975**	**1985**	**1995**
Austria	45	n.a.	38.1	35.4
Belgium	46	39.9	31.8	28.3
Denmark	37	31.5	27.9	27.1
Finland	36	n.a.	31.9	27.9
France	39	38.7	32.4	26.9
F.R. Germany	48	46	41	36
Greece	24	29.2	25.7	23.2
Ireland	28	30.5	30	31.4
Italy	42	39.1	33.5	32.1
Luxembourg	n.a.	46.3	32	25.5
Netherlands	41	34.6	28.2	22.8
Portugal	31	33.8	33.9	32.2
Spain	35	38.3	31.8	30.2
Sweden	43	n.a.	29.9	26.6
United Kingdom	47	40.7	34.6	27.4
EU15	n.a.	n.a.	n.a.	30.3

SOURCE: Adapted from Williams (1992: 51) for 1965 and Hudson (1999: 33) for 1975-1995.

The decline in industrial employment has continued throughout the 1990s and 2000s. The response to this continuing deindustrialisation has been oriented towards specific policy actions that have often failed to deal with the impact of industrial decline, especially in relation to the effect of the uneven regional spread of industrial employment and changing features of employment, unemployment and inactivity.

It would be a mistake to position these changes in industrial structure within a homogenous process of national and regional economic convergence, or more crucially now divergence, as capitalism has "developed territorially specific forms in Europe" like the Anglo-Saxon, corporate Rhineland, Scandinavian, and Southern Europe models suggested by Hudson (2003: 49-50). All these models have encountered, in one way or another, the problem of continuing and persistent uneven development within less-favoured regions and across national and European regions (Dunford and Smith 2000; Rodríguez-Pose and Fratesi 2004). Although there was a convergence between regions after World War II, this has since stalled in Europe during and since the 1980s with the ascendancy of regional academic and policy emphases on 'successful regions' and European integration based on neoliberal precepts (Dunford and Perrons 1994; Agnew 2000); this programme has since spread Eastwards as transition economies in Eastern Europe have sought accession and adopted prescribed policy initiatives to achieve it (see Smith 2002; **Swain 2005**). It could be argued that the overall effect of the SEM has itself been unevenly spread as 'core regions' have benefited from the expansion of the internal market through greater economies of scale that enable the expansion of transnational production networks and the persistence of international division of labour, whilst regional production networks are hollowed out and left unable to compete effectively (Dent 1997; Hudson 1999, 2003; Smallbone et al 1999; Dunford 2003; Morgan 2004).

The 1980s and Old Industrial Regions

In the debates from the 1980s on the deindustrialisation of old industrial regions there was a stress on the effects of industrial restructuring on regional employment and regional uneven development, represented as the consequence of capital accumulation that operated at a global scale (Carney 1980; Carney et al 1980; Lewis 1984; Hudson

1988). The uneven development of ‘old’ industries and their industrial regions resulted from the centring of production near coalfields, which provided the resources and means to expand other industrial sectors like steel and metal processing (i.e. shipbuilding), as well as the dominance of international markets through the control of imperial colonies, particularly for Britain (Judge and Dickson 1987; Hudson 1988). These regions developed organisational and institutional structures specific to their peculiar features; i.e. large, oligopolistic conglomerates based in large production plants that relied on a unionised, labour force (Hudson 1988, 1994). Later, in the early twentieth century, mass production practices meant that sites of accumulation shifted to urban areas in order to access more easily the markets of both supply (i.e. labour) and demand (i.e. consumers), whilst later still in the mid twentieth century, post-Fordist production once more shifted industry, this time overseas (Hudson 1992). The major works of David Harvey (1999[1982]) and Doreen Massey (1995[1984]) were also significant contributions to this debate in highlighting the importance of these spatial and temporal processes in the organisation and relations of production, leading to the identification of localities as crucial sites of research, a continuing concern throughout the last few decades (see Scott 2000).

The earlier academic debates about old industrial regions and deindustrialisation in the early 1980s provide a means to engage with the present issues around European less-favoured regions, particularly those that are still experiencing industrial restructuring, from a historical and dynamic perspective that can contribute to the analysis of how certain regions face problems of industrial ‘lock-in’ through path dependency (Arthur 1989, 1999). These concepts are derived from the literature on evolutionary economics (Nelson and Winter 1982) and systems of innovation (Freeman 1982), especially in the cross-disciplinary work between these two theories (e.g. Dosi 1988), although the more recent geographic engagement in this topic (see the editorial by Hassink and Shin 2005) stresses the importance of balancing the dominant regional performance paradigm, which promotes the development of regional indigenous capacity (i.e. learning regions) and specialisation (i.e. clusters), with an appreciation that this approach is inherently risky because it privileges an understanding based on continuity rather than dynamic adaptation

and adjustment (see Chapman 2005). The very concept of path-dependency itself has been critiqued by Jamie Peck (2005: 153) as an 'over-socialised' framework. It therefore provides much less insight into regional adaptation and adjustment than perhaps the arguments put forward by Ray Hudson (2005: 583) on path-contingency which as a concept he argues "captures the character of the growth process, and in particular the transition from growth to decline, more adequately than does that of path dependency".

Alongside these concerns with industrial or sectoral path dependence and lock-in, there are wider questions over the problem of a broader 'lock-in' to particular economic strategies and ideologies, such as those encompassed by neoliberal discourses and policies (Peck 2004) or the 'American Economic Model' (Kitson 2005). In their work, Jamie Peck and Adam Tickell stress the need to understand neoliberalism not as a "naturalized, external force" that produces globalising effects, but rather as a "self-actualizing" discourse that through the prescriptive institutionalisation of specific policies and structures has important economic and development consequences, often unevenly spread (Peck and Tickell 2002: 382). These consequences are geographically situated in that policies taken to benefit one region impact upon other regions; for example, Jamie Peck (2001) argues that the interest-rate policies of the Bank of England have led to manufacturing job losses in the north of England as a result of a policy to control inflation in the South-east and London. Overall then there is the possibility that "[t]his produces a neoliberal "lock-in" to public-sector austerity and growth-chasing economic development" (Peck and Tickell 2002: 394), where the consequences for certain regions are placed above those of other regions.[ii]

Defining Old Industrial Regions

In setting out to explore issues of adaptation and adjustment in OIRs, our primary concern is with those regions that were at the forefront of early industrialisation in the European economy, geared to the exploitation of coal and other raw materials. These regions were at the forefront of capitalist development in the period from 1840 to the 1920s; a phase termed extensive accumulation (Aglietta 1979; Hudson 1988, 1989; Cumbers 1996) because the key drivers of the capitalist economy were the production of

capital goods and infrastructure industries such as iron and steel, shipbuilding, heavy engineering, and railway engineering. Subsequently, with the shift in the economy throughout the twentieth century firstly into Fordist mass consumption sectors and subsequently into post-Fordist electronic and information technology sectors, these regions have become increasingly marginal as growth regions of the capitalist economy, whilst facing increased foreign competition in traditional industries and therefore have been faced with relatively long term problems of adjustment and adaptation (Hudson 1992, 1994). Various waves of regional policy have also been directed at these regions since the end of the Second World War – both from national and European levels of governance – to varying success, but what characterised these regions up until the late 1970s and early 1980s was a continuing reliance upon their traditional sectors, despite efforts at diversification into newer growth sectors. In this context, our concern here is with how further European integration and increased competition from the mid 1990s and beyond will impact upon these regions.

There are several problems to confront in attempting to develop a typology of old industrial regions (OIR) in Europe, particularly problems of (a) sectoral definition and classification, (b) the availability of data, (c) different periods of industrialisation, and (d) subsequent 'peaks' in industrialisation in different countries (see Townsend 1997; Sadler 2000). Largely for pragmatic reasons of data availability and geographical comparability between different countries, we have taken a definition of OIRs based upon old mining areas, although there are clearly areas outside in textile, shipbuilding and engineering industries that could also be identified as OIRs. Consequently we have drawn upon a redrafting of several regional typologies from the early 1980s by Allan Williams's (1992), which separate regions into areas of slow and rapid capital accumulation, and based upon a timeframe between the mid 1970s and early 1980s – the key period of economic crisis that has faced Europe's old industrial regions since the end of the Second World War. In a more recent classification, Rodríguez-Pose (1998a) provided an updated definition based on nationally weighted GDP and mean annual growth that identifies a number of the same regions (see also Rodríguez-Pose 1998b), but positions several of the

OIRs we identify in a more intermediate and dynamic position, although this appears to be a result of his use of a larger regional scale (i.e. NUTS1).

Notes on Methodology

This definition covers some of the worst economic 'blackspots' across European countries during the early 1980s, including the Ruhr and Saar regions of Germany, North-east France, the Basque region of Spain and the UK coalfields (see Williams 1992: 250). We have used a paper by Beatty, Fothergill and Powell (2005) to identify UK coalfield regions. Because we have drawn our data from Eurostat we have identified regions based upon NUTS2 designations as shown in **Table 1** and **Figure 2**.

Figure 2: Map of Old Industrial Regions in the Largest European States

Although these NUTS2 designations are by no means unproblematic – for example, Munster and 'West Wales and the Valleys' include large rural areas – they represent the closest area designations for our typology that also contain consistent data for the time period we are considering. It also avoids the problem of using too large a regional

designation (see last section), yet still ensures that there is a consistent, comparative data available from Eurostat.

Table 1: European Old Industrial Region Designations

OIR Typology	NUTS2 Region	NUTS2 Code
Ruhr	Düsseldorf	dea1
	Münster	dea3
	Arnsberg	dea5
Saar	Saarland	dec0
North-east France	Picardie	fr22
	Nord Pas-de-Calais	fr30
	Lorraine	fr41
Basque country	Pais Vasco	es21
UK coalfields	Tees Valley & Durham	ukc1
	Northumberland, Tyne & Wear	ukc2
	Lancashire	ukd4
	South Yorkshire	uke3
	Derbyshire & Nottinghamshire	ukf1
	Shropshire & Staffordshire	ukg2
	West Wales & The Valleys	ukl1
	South Western Scotland	ukm3

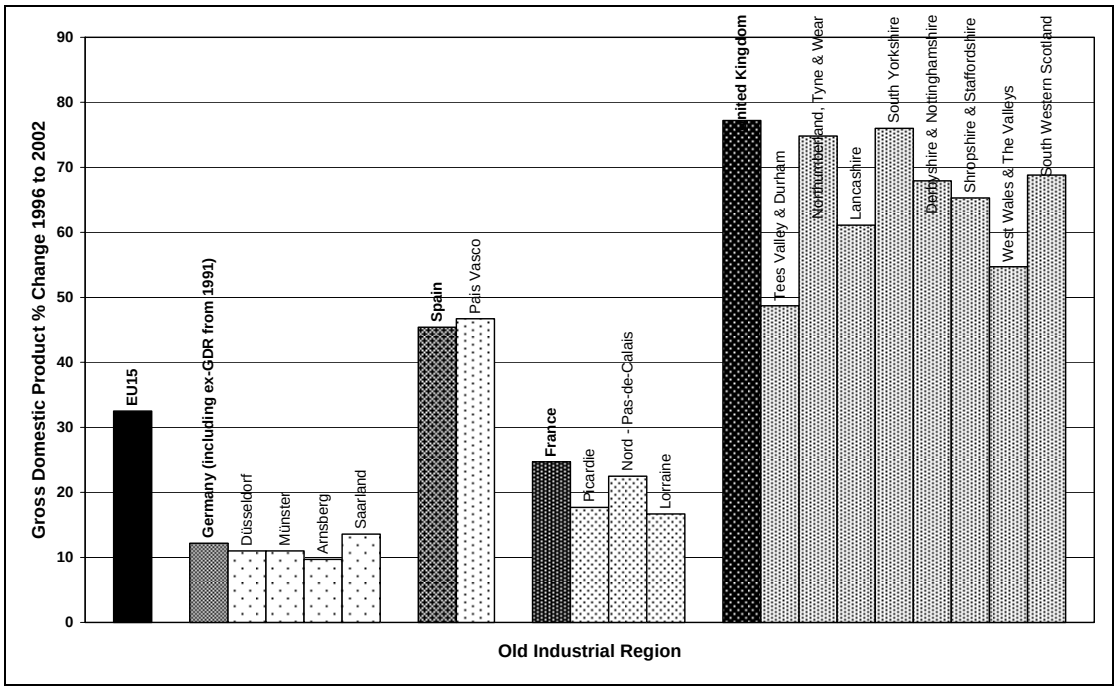
All the data in the following analysis was drawn from Eurostat Regional Data for the years 1996 and 2002. This period represented the furthest back that it is possible to go using Eurostat data at the NUTS 2 level and the most up-to-date data available for all the indicators at the time of the data collection. The specific indicators for economic performance – i.e. GDP and GDP (PPS) – were derived from the *Economic Accounts* datasets, whilst the indicators for employment performance were derived from the *Science and Technology* datasets to provide consistence in the comparison of data on total employment and other employment indicators; i.e. high-tech, low-tech, manufacturing, services etc.

3. THE CHANGING ECONOMIC AND EMPLOYMENT PERFORMANCE OF EUROPEAN OLD INDUSTRIAL REGIONS

Comparing Economic Performance

In relation to economic performance, characterised by change in gross domestic product (GDP), there is a unmistakable pattern of strong growth in British OIRs over the period 1996 – 2002, clearly outperforming all the other European regions although largely related to strong growth in the national economy as a whole (see **Figure 4**). The worst performing regions were those in Germany, although French regions also performed below the EU average. What appears quite clear from these figures is that, in GDP terms at least, the performance of OIRS is strongly linked to national economic performance. In this respect, it is worth noting that overall, despite their strong performance against the EU15 average, all UK OIRs were below the national increase.

Figure 4: Gross Domestic Product (GDP) % Change 1996-2002

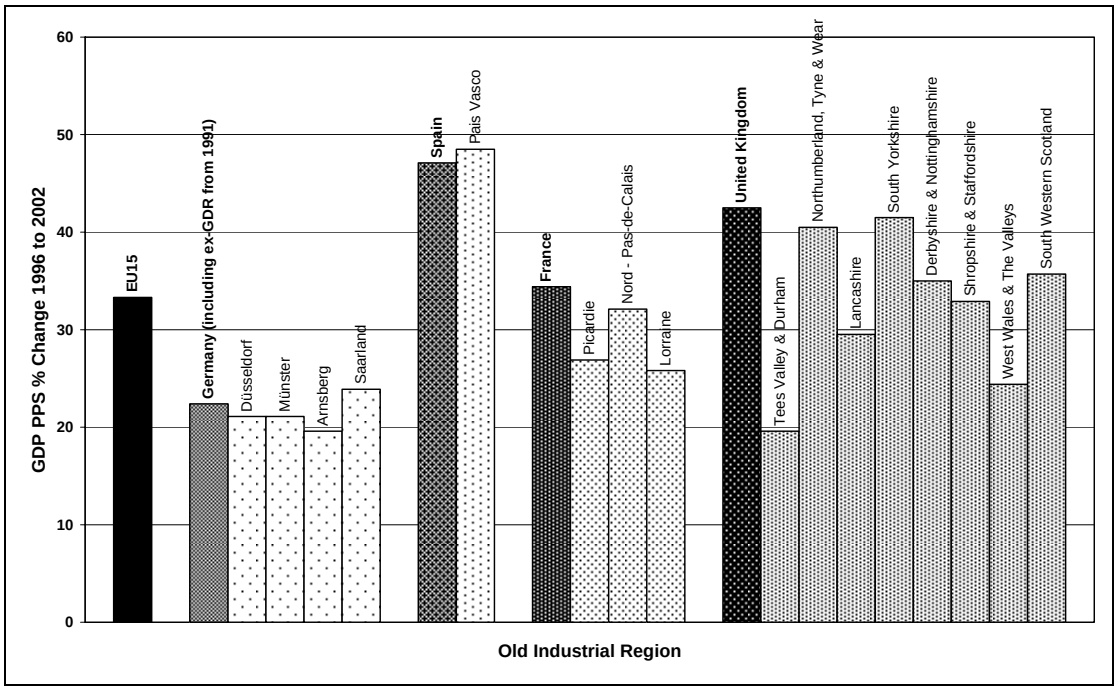


SOURCE: Eurostat, Economic Accounts

The difference in GDP performance between OIRs is reduced significantly when considering GDP in terms of Purchasing Power Standards (PPS).[iii] Using the indicator

GDP (PPS) reduces the difference between the highest and lowest regional changes from around an eight-fold difference (76 versus 9.7) to around a two-and-a-half-fold difference (48.5 versus 19.6). Furthermore, using this measure also means that four UK regions (Tees Valley, Lancashire, Shropshire and Staffordshire, and West Wales) now fall below the EU15 average increase (33.3%) between 1996 and 2002 (see **Figure 5**). The regions with the highest increase also change; Spain and Pais Vasco are now above the UK and its regions.

Figure 5: GDP Purchasing Power Standards (PPS) % Change 1996-2002

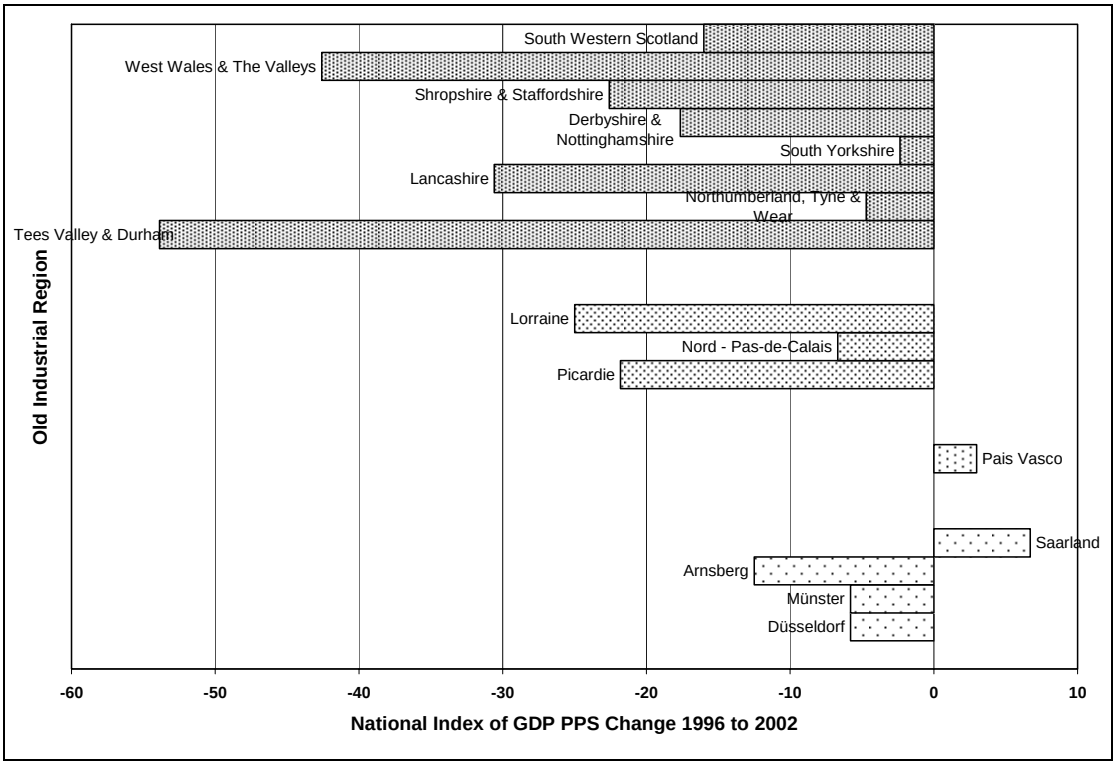


SOURCE: Eurostat, Economic Accounts

Because we are interested in the OIRs relative performance as well, and because of the differences in performance between GDP and GDP (PPS), we indexed regional GDP (PPS) change against national performance. It is evident from the indexed data that the GDP (PPS) performance of the British OIRs is significantly less impressive than the initial data on GDP alone suggests (see **Figure 6**). Between the years in question, no British, or French, regions performed better than the national economy with Tyne Tees, Lancashire and West Wales having the worst relative performance across all four countries. In fact, the only OIRs that achieved above national growth were Pais Vasco

and Saarland, suggesting that the comparison of raw GDP figures might disguise the continuing persistence of uneven development in these particular regions, if not more widely.

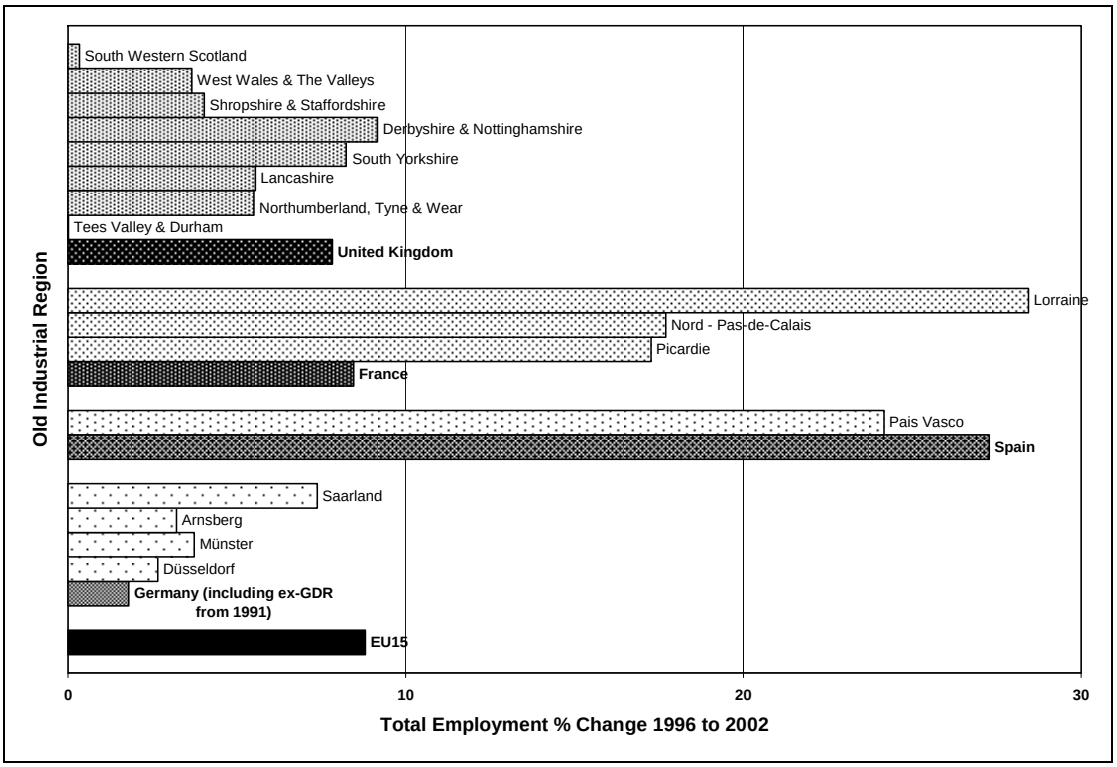
Figure 6: National Index of GDP PPS Change 1996-2002



SOURCE: Eurostat, Economic Accounts

The next indicator we considered was employment change, which again alters the view of regional performance. Whilst, in line with Beatty et al's (2005) commentary on the UK coalfield regions, we can comment on a general upturn in the fortunes of Europe's OIRs over the period since mid 1990s, the best performing OIRs are in France and Spain (see **Figure 7**). Interestingly, total employment rose higher than the national rise in all of Germany's OIRs, all of France's OIRs, but just two of the UK's OIRs (South Yorkshire and Derbyshire & Nottinghamshire). Only in France, Spain and one UK region (Derbyshire & Nottinghamshire) was the rise higher than the EU rise (8.8%). The two regions with the lowest rises were both in the UK; Tees Valley & Durham (0%) and South Western Scotland (0.3%).

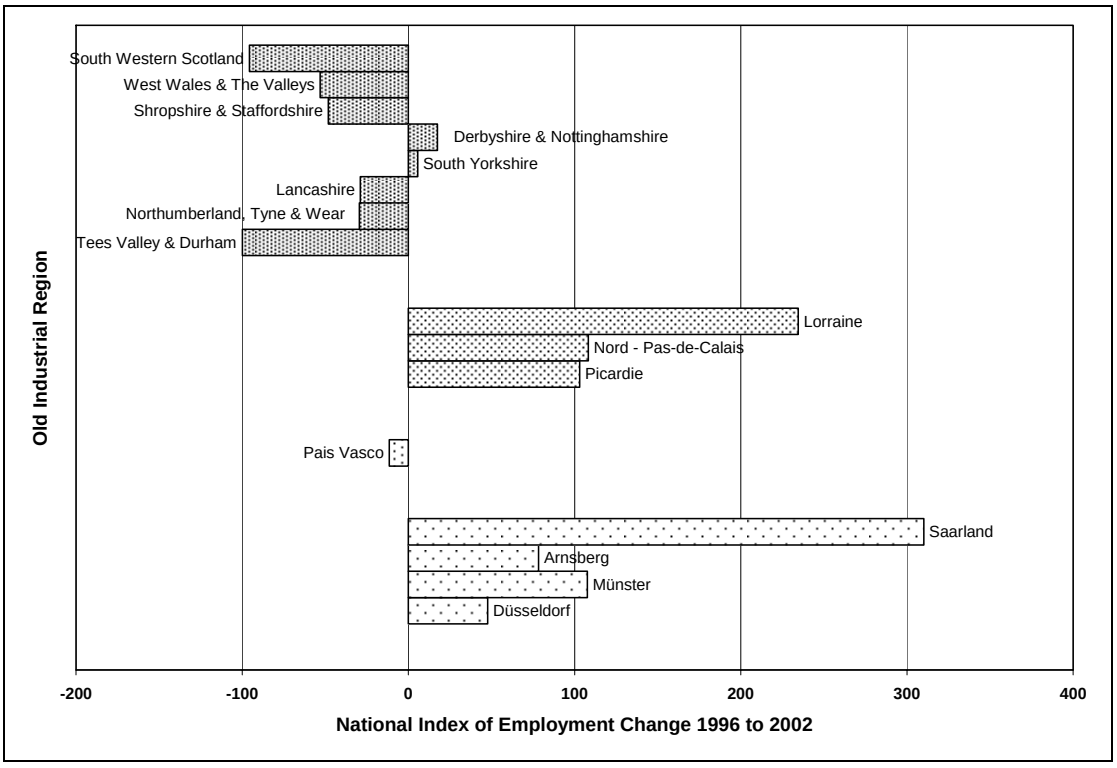
Figure 7: Total Employment % Change 1996-2002: Old Industrial Regions in the EU15



SOURCE: Eurostat, Science and Technology

A national index of total employment data once again illustrates the poor performance of the British OIRs against the national average in creating employment (see **Figure 8**); the lowest performing region was Tees Valley with a national index of -99.8 (national equals 0). Only two British OIRs (Derbyshire and South Yorkshire) are above the national average and even then not significantly so, especially in comparison with both German and French OIRs. These countries OIRs performed notably better than the national average with no region having a lower national index than 47.7; the highest being Saarland at 310.1. Interestingly Pais Vasco performs poorly on this measure, although not a badly as UK regions, suggesting that the national performance of Spain is particularly good.

Figure 8: National Index of Employment Change 1996-2002



SOURCE: Eurostat, Science and Technology

A preliminary interpretation and analysis of these figures reveals three things. First, there is a sharp contrast between performance in employment and GDP growth across nations and OIRS within Europe. Nationally the UK performs well in terms of GDP growth but less well in relation to employment, although the dramatic improvement in GDP is reduced somewhat when considering performance in terms of PPS. The performance of UK regions is also significantly lower than other European OIRs when indexed against national performance, suggesting that UK regions are adapting less well to their changing position than other national OIRs. Second, all nations and regions perform better, apart from the UK, when GDP is contrasted with GDP (PPS); perhaps illustrating the higher costs of living in the UK. The difference is less marked with Spain (and Pais Vasco) than with Germany, especially, and France. Thus it would appear that straight GDP growth does not accurately reflect the benefits that may accrue to a region's residents from economic performance. In this respect, a final point to make here is that whilst the performance of OIRs is related quite strongly to national trends when measured by GDP, greater divergence appears when we consider employment. What is particularly striking

is that, whereas OIRs in France and Germany outperform the national average, in the UK this only applies to two areas with the remaining six continuing to perform well below the national trend.

Engaging in some initial analysis and speculation about the variation in these figures for employment performance, the figures do not lead to any clear confirmation of the obvious and most popular theoretical arguments and claims about regional competitiveness. For example, there does not seem to be any obvious relationship with regional governance and autonomy. French regions, which have some of the lowest levels of devolved power, do far better than the German OIRs. The Welsh and Scottish OIRs are outperformed by their English counterparts. At the same time, there appears to be little correlation with national governance systems, making it difficult to support either neoliberalist or more social democratic arguments for regional competitiveness. The more deregulated and flexible economy of the UK produces wide-ranging performance among its OIRs, which are all surpassed by the performance of the traditionally more statist and interventionist culture within which French OIRs are embedded. The German OIRs with their highly regulated and advanced training systems lag behind most UK OIRs in terms of employment creation, although not when indexed against national performance. A second cut at regional competitiveness is therefore required that begins to get beneath these aggregate figures to explore changing components of change and what these reveal about how regions are being repositioned within broader divisions of labour.

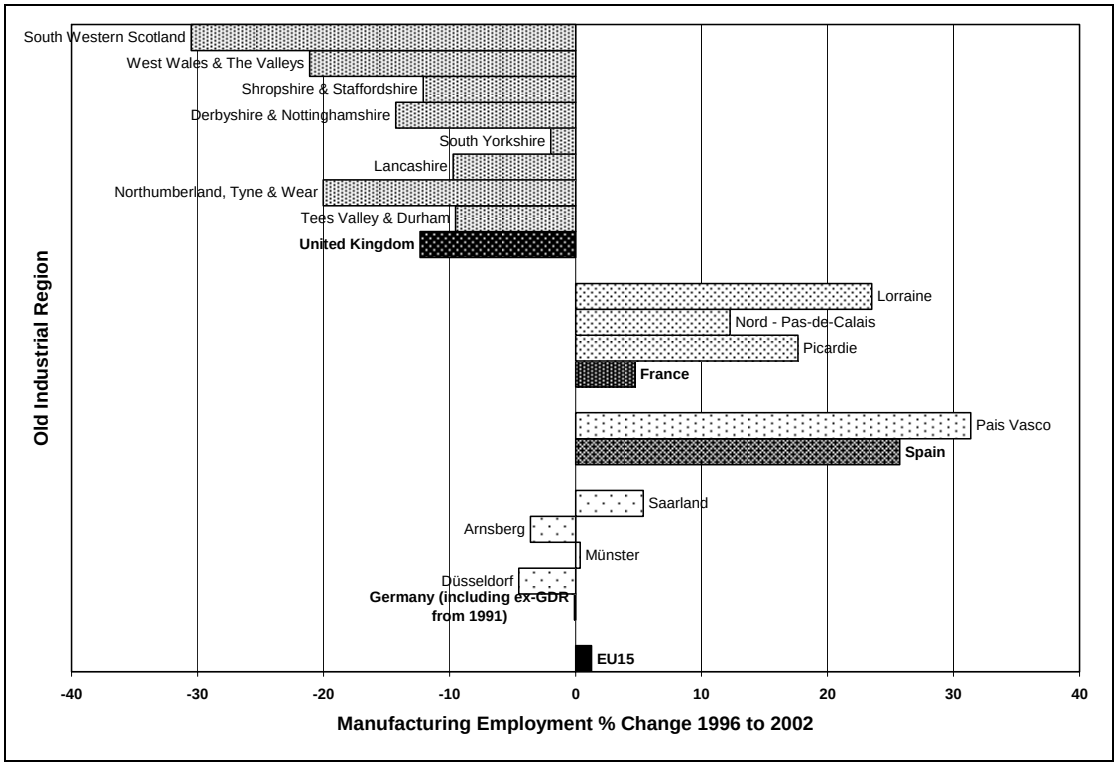
Unpacking Employment Variation

a. Manufacturing Employment Change

An interesting, yet little commented upon, fact in recent economic policy discourse is that there was a slight increase in 'manufacturing employment' (NACE category D) across the EU15 states of 1.3% between 1996 and 2002 (see **Figure 9**). Once again though, this varied significantly across the OIRs ranging between +31.4% (Pais Vasco) and -30.5% (South Western Scotland). However, the fact that some OIRs in national economies with high wages and social costs like France and Germany can register strong employment

growth in manufacturing – at a time of increased global and European integration – goes against some of the popular and indeed academic stereotypes about the inevitability of deindustrialisation and the flight of capital to low cost locations in Eastern Europe or the developing world.

Figure 9: Total Manufacturing (NACE D) Employment % Change 1996-2002



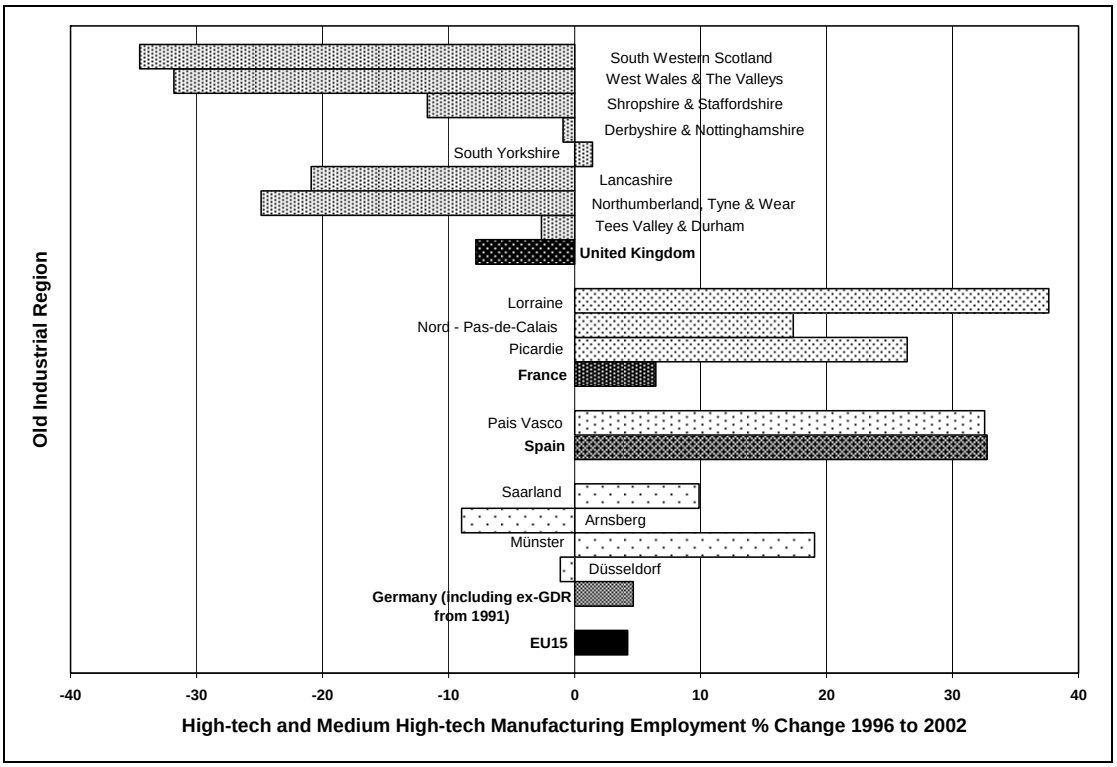
SOURCE: Eurostat, Science and Technology

In contrast to the data on total employment change, the figures for manufacturing change in the OIRs reveal a dramatic cleavage between different countries. The OIRs which had the largest decreases in manufacturing employment were all in the UK and apart from South Yorkshire all have higher percentage losses than any other European OIR. Nationally the UK lost 12.3% of manufacturing employment with four regions losing more than this percentage: Derbyshire & Nottinghamshire (-14.3%), Northumberland & Tyne & Wear (-20%), West Wales & the Valleys (-21.2%), and South Western Scotland (-30.5%). Of the other European regions only German ones – Dusseldorf (-4.5%) and

Arnsberg (-3.6%) – had a fall in manufacturing employment and at a much lower level than in the UK.

Using NACE categories, we have further broken down manufacturing employment into high-tech and low-tech activities. Employment change in high-tech (HT) and medium high-tech (MHT) manufacturing for the same period mirrors that for total manufacturing change with a sharp discrepancy between the performance of UK OIRs and the rest (see **Figure 10**).[iv] Once again the worst performing regions were West Wales and the Valleys (-31.8%) and South West Scotland (-34.5%). In all the Spanish and French OIRs there were increases in employment above the EU15 level, whereas in the UK in all but one region (South Yorkshire) there was a decrease in such employment; all were still below the EU15 average. In four regions this decrease was above -20% and five regions had falls greater than the national fall (-7.8%). In two German regions (Munster and Saarland) there were increases above the EU15 and national increases, whilst in two other regions there were decreases, particularly marked in Arnsberg (-9%), with a more marginal employment decline in the Dusseldorf region (-1.1%). Pais Vasco was on a par with the national change in Spain.

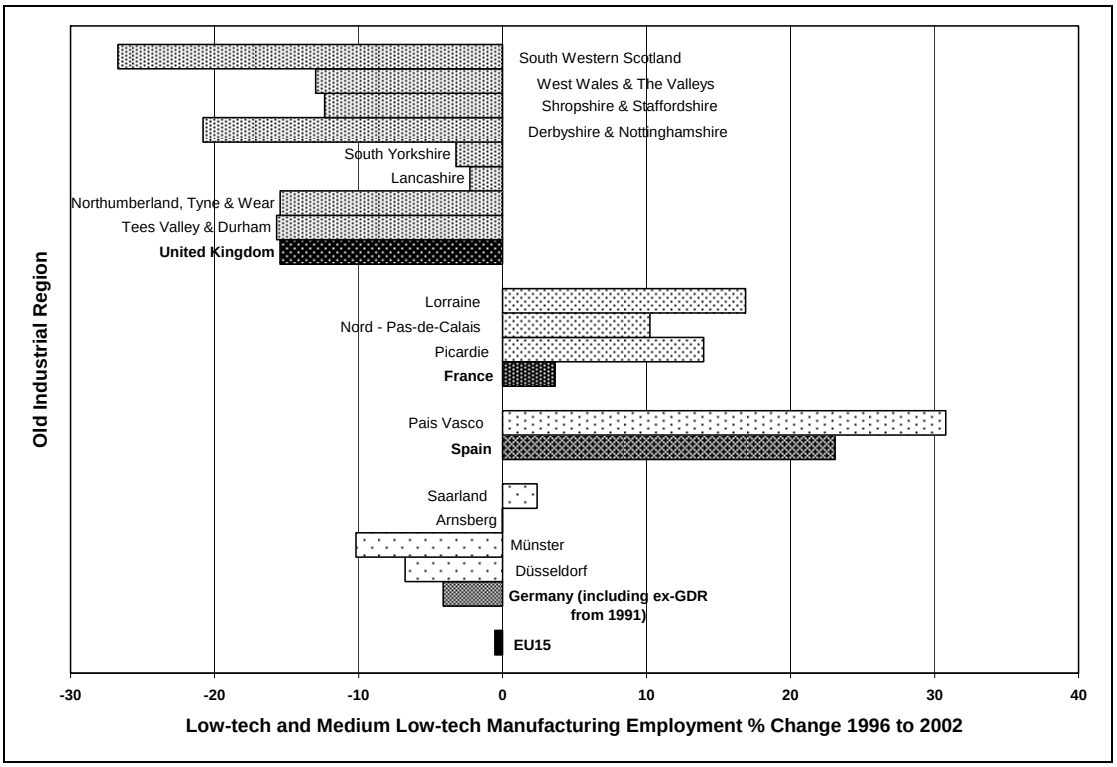
Figure 10: High-tech and Medium High-tech Manufacturing Employment % Change 1996-2002



SOURCE: Eurostat, Science and Technology

The employment change in low-tech (LT) and medium low-tech (MLT) manufacturing was similar to that for changes in total and high-tech manufacturing with the main difference being the worse performance of the German OIRs with two out of four recording employment decline (see **Figure 11**).[v] Once again the French and Spanish regions recorded increases in employment; higher than the national average in both cases. All UK regions had a decrease in employment, with the greatest being in South Western Scotland (-26.7%), although five regions had lower falls than the national average suggesting either (a) that these regions may still be more dependent on manufacturing employment than the UK more generally, especially South Yorkshire and Lancashire, or (b) that the manufacturing employment in some regions has been more affected by processes of deindustrialisation than other regions; i.e. certain sectors have been hollowed out more thoroughly or rapidly than others.

Figure 11: Low-tech and Medium Low-tech Manufacturing Employment % Change 1996-2002



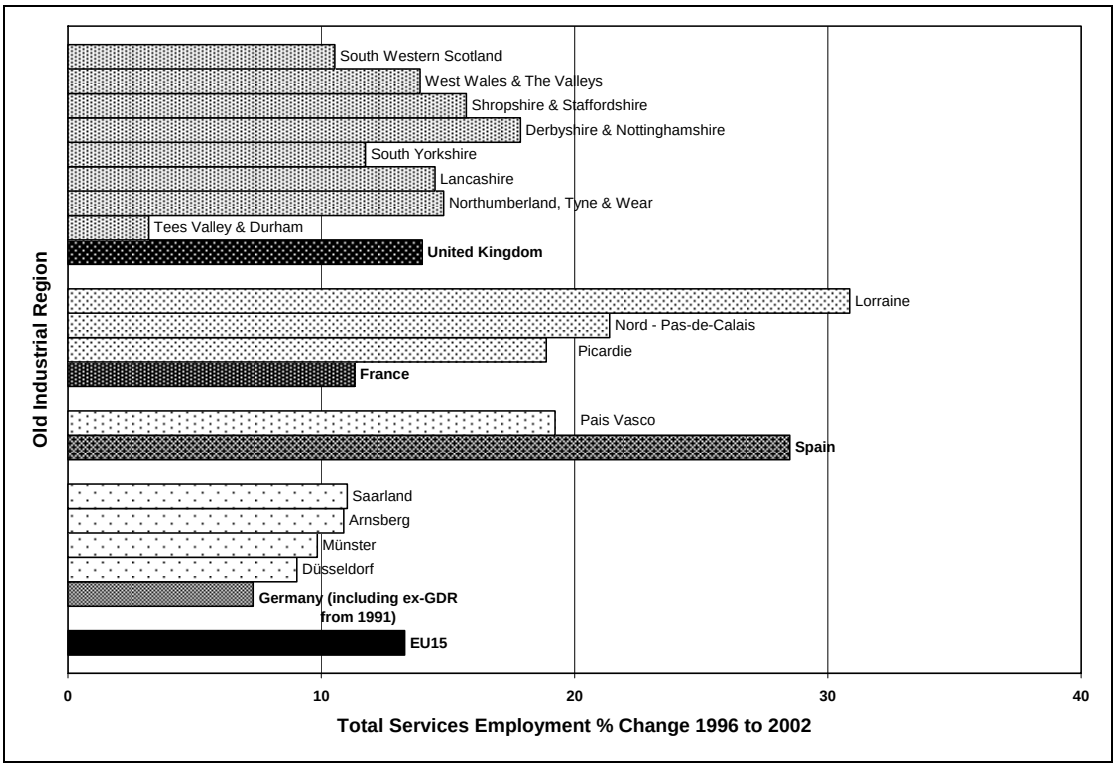
SOURCE: Eurostat, Science and Technology

b. Service Sector Employment Change

Employment in the service sector rose by 13.3 % between 1996 and 2002 for the whole of the EU15 (see **Figure 12**). Spain had a significant national increase above this level (over twice the EU level), whereas Germany and France had national increases below the EU15 average. The UK had a slightly higher increase of 14 %. Despite Spain's national increase, service sector employment change in Pais Vasco was closer to the EU15 average, whilst all French regions (Lorraine – the highest increase of any region at 30.9%) had increases higher than the EU and national averages. All German regions fell below the EU average increase; although the German regions were higher than the national increase. Five UK regions were above the EU average and four regions were also

higher than the national increase. The region with the lowest increase was Tees Valley and Durham in the UK which only had an increase of 3.2%.

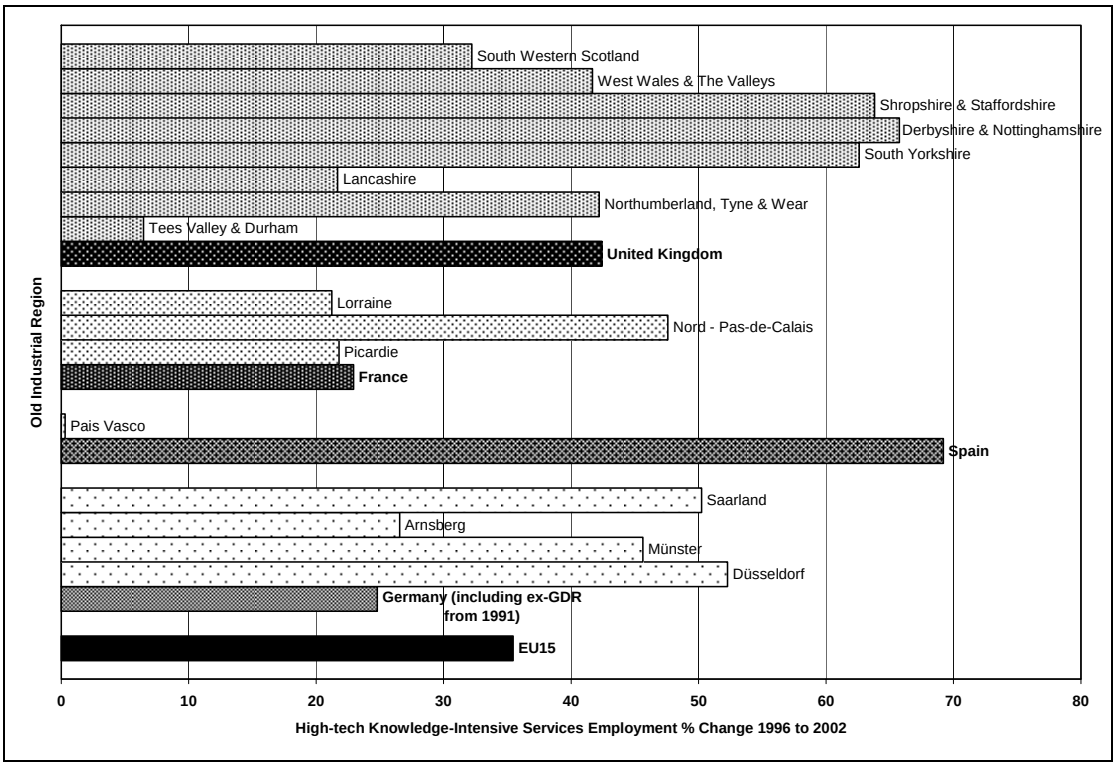
Figure 12: Total Services (NACE G-Q) Employment % Change 1996-2002



SOURCE: Eurostat, Science and Technology

One of the main differences in the pattern of employment change in services, compared to that of manufacturing, is in the marked increase in hi-tech knowledge-intensive services (KIS) in Germany and the UK (see **Figure 13**).[vi] In the former case all OIRs out-performed their national average, whilst in the latter case three regions did. The most striking change was the increase nationally for Spain (69.2%) accompanied by almost no change in Pais Vasco (0.3%).

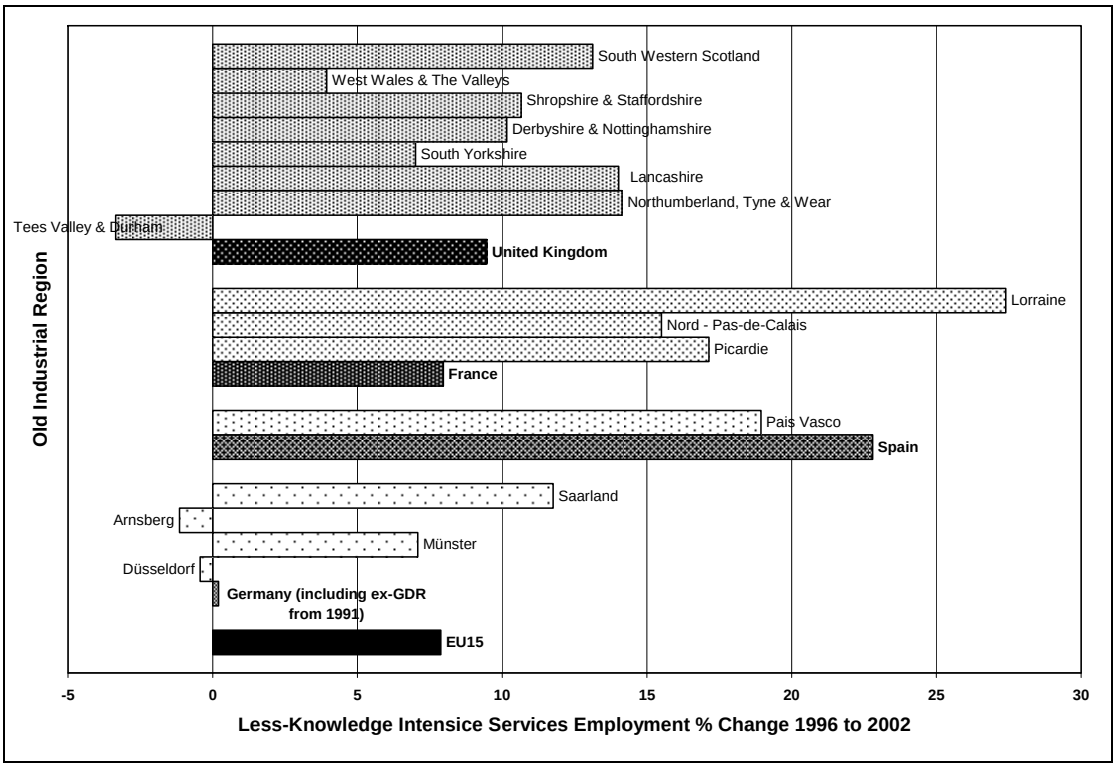
Figure 13: Hi-tech Knowledge-intensive Services Employment % Change 1996-2002



SOURCE: Eurostat, Science and Technology

In relation to less-KIS employment change, German regions split between increasing between 7-12% and decreasing slightly (see **Figure 14**). This time Pais Vasco increased more than the EU average, but still less than Spain nationally, whereas all the French regions increased more than the French national average and the EU average. In the UK five regions had increases above the national average, as well as above the EU average. However, one region (Tees Valley and Durham) decreased by 3.4%.

Figure 14: Less-KIS Employment Change 1996-2002: Old Industrial Regions in the EU15

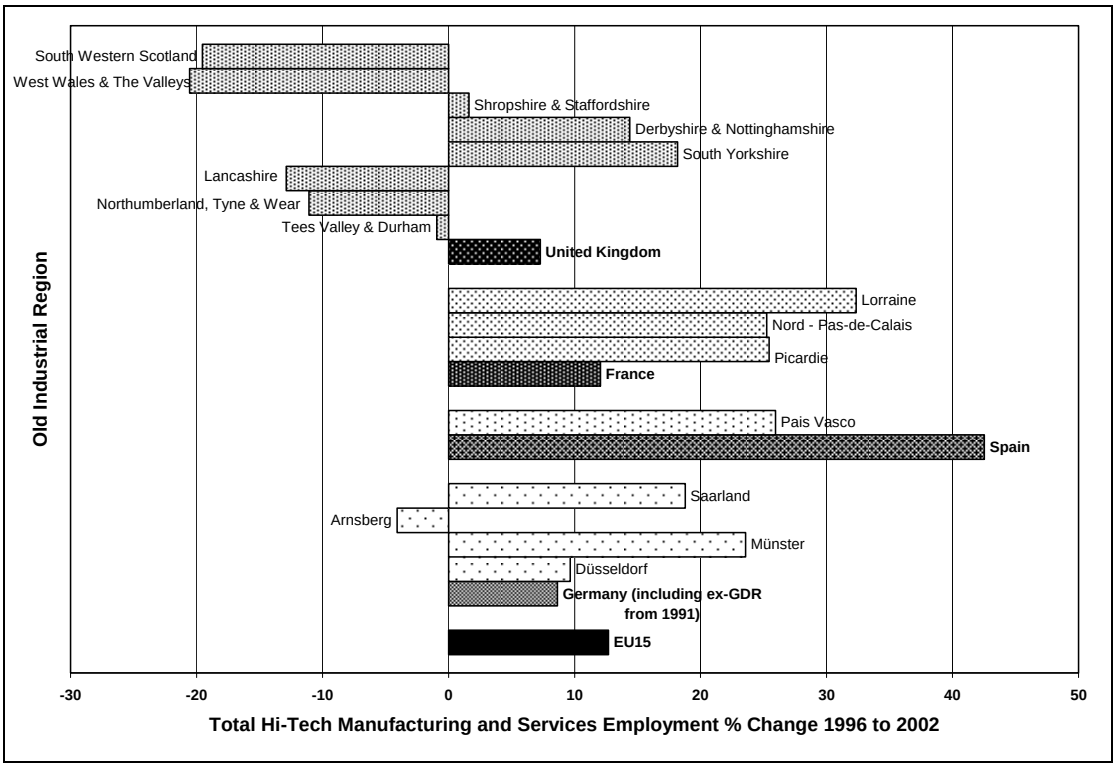


SOURCE: Eurostat, Science and Technology

c. Total High-technology Employment Change

For a final piece of analysis, we have compared employment change in high-tech activities (both manufacturing and services) across OIRs (see **Figure 15**) and indexed against national averages (see **Figure 16**). Data on these changes illustrate that there are significant differences between British regions, in the expansion of high-tech employment, as well as with other European OIRs. For example, French regions perform particularly well, being above both EU15 and national averages, whilst most German regions perform above the national average. In contrast Pais Vasco performs well against other European regions and the EU15 average, but less well against the national change. Thus, despite the good performance of British regions in relation to service employment, most UK regions' overall high-tech performance is poor, except for South Yorkshire and Lancashire.

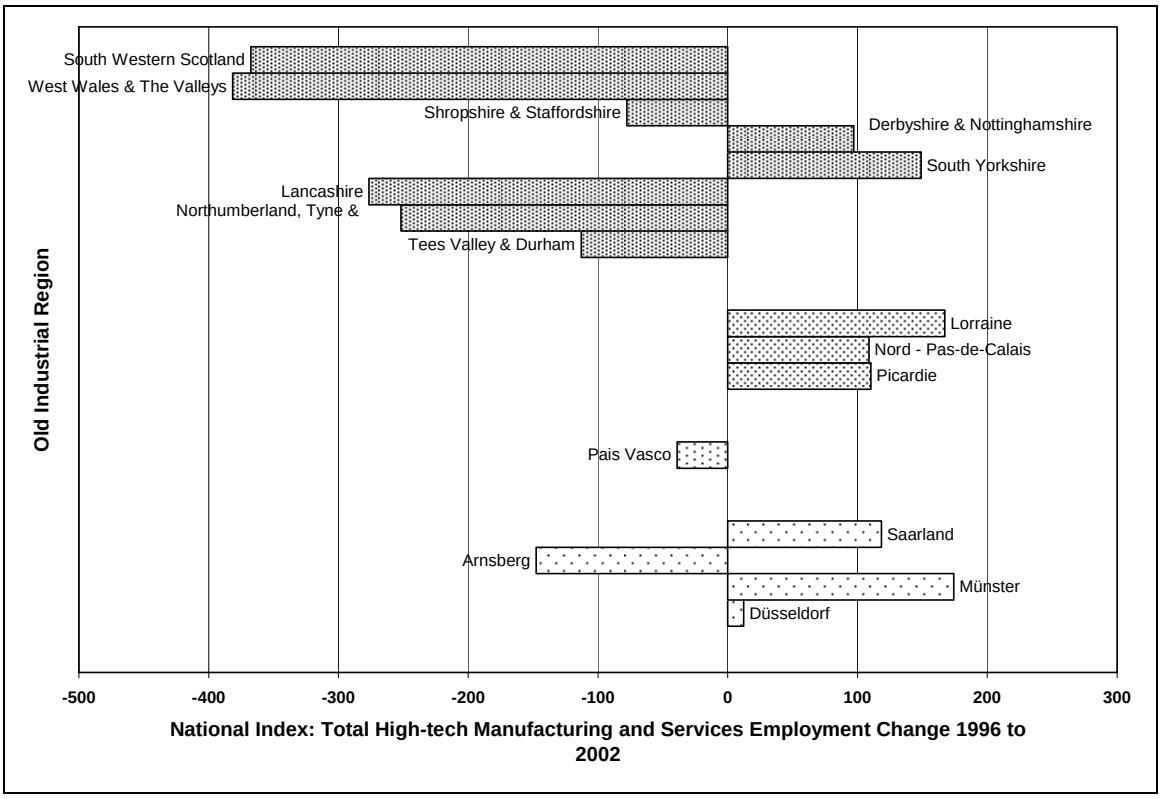
Figure 15: Total Hi-Tech Employment % Change (Manufacturing and Services) 1996-2002



SOURCE: Eurostat, Science and Technology

The poor performance of British regions is reinforced when the data are indexed against national changes in total high-tech employment. The position of British regions, particularly those in Wales, Scotland and the north of England, illustrate the extent to which these regions have failed to adapt to the industrial restructuring engendered by the shift towards a 'knowledge-based' economy as they continue to lag behind the rest of the country, despite active regional policies going back to the late 1920s (Armstrong and Taylor 2004). Their failure to capture a share of recent and emerging knowledge industries is compounded by the continuing decline in less skilled and more traditional manufacturing industries. In marked contrast, all the OIRs in the other European countries (with the exception of Arnberg in German and Pais Vasco in Spain, which anyway recorded a strong increase and for which the figure reflects a relative low level of prior industrialisation in much of the rest of the country) have performed better than the national average suggesting strong abilities to adapt to a changing environment.

Figure 16: National Index of Total Hi-tech Employment Change 1996-2002



SOURCE: Eurostat, Science and Technology

4. CONCLUSION: REPOSITIONING OLD INDUSTRIAL REGIONS IN THE GLOBAL ECONOMY

The marked differential in the performance of UK regions in relation to those in the other EU states leads us to speculate theoretically that both regional and national systems of economic governance and policy coordination continue to be critical in facilitating processes of successful adaptation and adjustment to changes in both the European and global economies. Whilst the starkest contrasts are with the French OIRs and Pais Vasco, the poorer performance compared to the German OIRs, in terms of creating manufacturing jobs in particular, in some ways raises the most interesting set of issues. Given the German economy's widely publicised problems of high unemployment, the difficulties in handling the transition following unification, and its greater proximity to

the lower wage and less regulated labour markets of the new Eastern European accession states, we might have expected a much greater decline in employment in these regions. Yet, with the exception of low-tech manufacturing - where the performance is still better than that of the UK – the picture (from these figures at least) appears to be one of relatively successful adjustment during this period. Whether this will continue as greater European integration proceeds is a moot point of course.

In interpreting these trends further, we would however emphasise the importance of going beyond national level explanations, to develop a perspective that considers the way regions and states are being repositioned within broader spatial production networks as part of shifting international divisions of labour (Hudson 1988, 2002; Dunford 2003). These changing spatial relations have been explored using a number of diverse approaches, such as world systems theory (e.g. Hopkins and Wallerstein 1986) and the related global commodity chains literature (e.g. Gereffi 1994, 1996), which also built on work on the new international division of labour (see Henderson et al 2002). Other approaches in business strategy, such as national business systems (Whitley 1996) and value chains (Porter 1990), have also been popular, whilst there is a growing 'cultural' turn in research on consumption and 'systems of provision' (Fine and Leopold 1993; see also Leslie and Reimer 1999; Hughes 2000). However, it is the work on global production networks (GPN) that proves the most useful concept to apply to research on old industrial regions. Without accepting the hyperbole of globalisation discourse (Dicken 2004), it is important in this respect to understand how regional development prospects are increasingly bound up and embedded within wider sets of spatial relations beyond the national level, and in particular how regional adjustment is linked to the international and global production networks within which a region's firms are embedded (see Dicken et al 2001; Henderson et al 2002; Coe et al 2004).

According to Henderson et al (2002: 447), all GPN have to be considered as multi-scalar in that they range "from the local and regional to the national and global and back again" and consist of three main features: value, power and embeddedness. It therefore recognises that different firms, sectors, networks and institutions operate across multiple

scales, thereby breaking the national-centric focus of many other approaches, whilst also avoiding the ahistorical concentration on *existing* global commodity chains, rather than on processes of development and decline (Henderson et al 2002; Coe et al 2004). An implicit assumption in the GPN concept is the combination of both the diffusion and concentration of production, depending upon the complexity and 'capital-intensity' of the activity within the value chain, without the need to privilege any particular scale (Coe and Yeung 2001; Ernst and Kim 2002). Consequently different locations embed different aspects of the GPN at different times and at different strengths of 'stickiness', and subsequently they have differing abilities to withstand economic changes like industrial restructuring (Markusen 1996). Thus regional performance is constituted by the internal and external capabilities of its organisational and institutional actors (although wider than the focus on innovation or knowledge alone implies – Ernst 2002), especially their adaptation and adjustment to changing priorities of local, national and global economies, although not limited to innovation or knowledge-based activities alone (Smith et al 2002).

Using this perspective to make an initial assessment of the prospects for European OIRs, we would speculate that the poor performance of UK regions relative to those in the rest of Europe reflects the failure of UK based firms and policy makers to successfully develop processes of "value creation, enhancement and capture" (Coe et al 2004: 469) that mesh with the needs of TNCs. In a dynamic sense and despite the rhetoric of the New Labour Government there is a particular failure to adapt to the changing conditions of the knowledge economy. In particular, and despite the growth of high tech services activities, the failure to secure a high enough proportion of the value added activities in the high skilled manufacturing sectors appears to be a critical factor in explaining poor performance overall. This leads us to suggest that reliance upon service driven growth remains a flawed strategy for most of the British OIRs reflecting the continued dominance of the South-east of England over both economic and regional policy making (Massey 1984; Harvey 1999). Furthermore, we would speculate that even in the knowledge-based service sectors, the main areas of growth are likely to be in nontradeable support sectors rather than those that provide a sustainable export base. Other OIRS by comparison, seem, to date, to be more successful in their processes of

adaptation, by holding onto sectors that are tradeable. It is worth pointing out that this extends to a better performance (and in some cases job growth) in low tech manufacturing, suggesting that regions in France and Germany are better able to withstand cost-based competition from newly industrialising countries in Asia as well as those closer to home in Eastern Europe.

We would further speculate that underpinning these trends are differences in national and corporate governance systems, nature and forms of ownership and systems of employment relations, which enable these regions to deal more successfully in capturing value and securing economic returns from the key actors and processes at work in emerging global production networks. However, there is also a possibility that national level policies exacerbate the collapse of specific industrial structures because they avoid dealing with regionally-based issues (i.e. unemployment); for example, Beatty and Fothergill (2005: 839, 841) highlight the role played by incapacity benefits, especially in old industrial regions, that are now claimed by 7.5 % of the UK population, or 2.7 million people, compared with between 4 and 5 % in France, Germany and Spain. More importantly, in British old industrial regions the level of incapacity benefit claimants increases notably; e.g. in Easington, Durham, it is 21.1 % and in Glasgow 17.2 % (ibid. 843). Although there has been less movement on this front between 1996 and 2002, the figures strongly suggest that these three countries have performed considerably better than the UK at adapting to changes in industrial structures during this period.

In final conclusion, although Western Europe has continued to experience deindustrialisation and industrial restructuring, it has been unevenly spread across the four large countries we have considered here. Although it would appear as though UK old industrial regions have performed well against other OIRs in terms of economic growth (i.e. GDP), this disguises a number of weaknesses in the British economic system. British OIRs have performed poorly against the national average across both GDP and employment growth, compared with other European OIRs, but particularly poorly in relation to manufacturing employment change, whether high-tech or low-tech. The fact that Britain has lost around a quarter of its manufacturing employment between 1997 and

2005 alone, attests to the continuing decline of these regions against national and other regional changes; a concern compounded by the expansion of incapacity benefits across the British OIRs. Whilst UK regions have performed better in relation to service sector employment growth, their inability to develop a stronger high-technology employment base suggests that British OIRs will continue to face processes of uneven development, unemployment, inactivity, and population decline, reinforcing the weak positioning of such regions within global networks of production, which makes addressing their ability to adapt and adjust to such changes of crucial importance.

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NOTES:

[i] http://www.statistics.gov.uk/pdfdir/lmsuk0206.pdf and http://www.statistics.gov.uk/statbase/tsdtables1.asp?vlnk=lms

[ii] In his updated version of *The Limits to Capital*, David Harvey (1999: xv) writes: "the public admission by Alan Budd, an erstwhile adviser to Margaret Thatcher, that the fight against inflation in the early 1980s was a cover for raising unemployment and reducing the strength of the working class".

[iii] According to Eurostat Purchasing Power Standards (PPS) "are a fictive currency unit that eliminates differences in purchasing power, i.e. different price levels, between countries. These parities are obtained as a weighted average of relative price ratios in respect to a homogeneous basket of goods and services, both comparable and representative for each country. They are fixed in a way that makes the average purchasing power of one Euro in the European Union equal to one PPS. The calculation of GDP in PPS is intended to allow the comparison of levels of economic activity of different sized economies irrespective of their price levels." http://europa.eu.int/estatref/info/sdds/en/regio/gdp95_sm.htm#top

[iv] High-tech manufacturing involves aerospace (NACE 35.3); pharmaceuticals (24.4); computers, office machinery (30); electronics-communications (32); and scientific instruments (33). Medium high-tech consists of electrical machinery (31); motor vehicles (34); chemicals, except pharmaceuticals (24 excluding 24.4); other transport equipment (35.2, 35.4, 35.5); and non-electrical machinery (29) (Source: Eurostat).

[v] Medium low-tech manufacturing consists of coke, refined petroleum products and nuclear fuel (NACE 23); rubber and plastic products (25); non-metallic mineral products (26); shipbuilding (35.1); basic metals (27); and fabricated metal products (28). Low-tech covers other manufacturing and recycling (36, 37); wood, pulp, paper products, printing and publishing (20, 21, 22); food, beverages and tobacco (15, 16); and textile and clothing (17, 18, 19) (Source: Eurostat).

[vi] Knowledge-intensive high-tech services include post and telecommunications (NACE 64); computer and related activities (72); and research and development (73) (Source: Eurostat).