UNIVERSITY OF NEWCASTLE UPON TYNE

Regional Dimensions of the Knowledge Economy:

Implications for the 'New Europe'

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Dedicated to my sister Julia

1978-1996

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Abstract

This thesis examines the implications of the alleged rise of the 'knowledge economy' for regional economic change in Europe. In particular, it is concerned with 'post-industrial' trajectories of less-favoured regions, in both the Western and Eastern parts of the 'New Europe'. In doing so, the thesis critically engages with the 'new regionalism' economic geography approaches that draw on institutional/evolutionary economics, and on the 'knowledge economy' or 'learning economy' discourses. These approaches invariably identify localised forms of *knowledge* production and *learning* and various supporting *institutions* as key factors behind regional prosperity. Considered as the most important organisational units of contemporary global knowledge-intensive capitalism, economically successful regions are understood as 'learning regions' acting as collectors and repositories of knowledge, and displaying the ability to learn and innovate, while being supported by regional 'institutional thickness'. Less-favoured regions are themselves claimed to have a capacity to improve their own economic fortunes by becoming 'learning regions'.

These claims are exposed to a theoretical scrutiny that reveals serious conceptual weaknesses in the 'knowledge economy' and 'learning region' paradigms and the thesis suggests an alternative conceptualisation of regional economic change. This alternative conceptualisation places emphasis on the 'socio-spatial divisions of labour' and the accompanying 'socio-spatial value chains/networks' as a useful prism through which increasingly uneven regional development in Europe can be understood. The case studies of two former industrial region-states are then presented – one in the 'Western' periphery (Scotland) and one in the 'Eastern' post-socialist periphery (Slovakia) of the 'New Europe' – both attempting a transformation to the high value-added 'knowledge-based' economy. The empirical evidence supports the view that, although institutions can play an important role in economic development of regions, their room for manoeuvre is nevertheless significantly constrained by their own historical legacies and the wider neo-liberal political economy.

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Chapter 1:

Introduction

1.1 The issues

The end of the 20th century was marked by two major processes: transformation of the advanced capitalist economies (seen by many as the rise of the 'knowledge economy') and the fall of state-socialist regimes in Central and Eastern Europe. To paraphrase Polanyi (1957), these two processes can be seen as 'great socio-economic transformations', implying profound changes to the way society and the economy works. In Europe, these transformations have been met with great expectations. Indeed, the alleged arrival of the 'knowledge economy' has been associated with the prospect of overcoming the contradictions of industrial capitalism and delivering at the same time both a competitive economy and a more equal society (see EC, 1996; EC, 1997a; EU, 2000; Leadbeater, 2000). Meanwhile, the dramatic collapse of the state-socialist block ended the Cold War and raised hopes that the formerly divided continent will be reunified within a 'New Europe' (Pinder, 1998). In short, the two transformations fuelled expectations that Europe could move towards creating a borderless and economically and socially cohesive pan-European community. For the economically peripheral regions in both the East and the West of the 'New Europe', such a process would signify better prospects for closing the economic 'gap' with more prosperous regions of the continent.

The recent decade, however, has offered a rather different picture. The 'transition' from state-socialism to market capitalism in Central and Eastern Europe has proved to be much more difficult than expected, leaving the majority of people in the Eastern half of Europe worse-off (cf. Dunford and Smith, 2000) and further complicating European enlargement. Meanwhile, Western Europe as a whole recorded steady economic growth, although this was seemingly achieved at the expense of increasing internal social and regional divisions. As a result of these processes, the space-economic landscape of the 'New Europe' has experienced sharp fragmentation with deep lines of division (re)appearing within and between its Eastern and Western parts (Amin and Tomaney, 1995a; Hadjimichalis and Sadler, 1995; Hudson and Williams, 1999; Agnew 2000; Dunford and Smith, 2000; Sokol, 2001). Deepening uneven development, of course, belies the objectives of the European Union's (EU) *Maastricht Treaty* (which seeks economic and social cohesion), thus highlighting the need to encourage critical debate on theoretical understanding of the causes of uneven development and to open a discussion on policy frameworks that could counter social and regional inequalities.

This thesis aims to contribute to this debate by focusing on the regional dimensions of economic development in the context of enlarging Europe. In particular, it is concerned with the prospects of economically peripheral, former industrial regions, in both the East and the West of the emerging 'New Europe' and the ways such regions cope with the allegedly emerging 'knowledge economy'. In doing so, the thesis engages with the dominant approaches within economic geography primarily associated with the rise of the 'new regionalism' (Lovering, 1999; MacLeod, 1999). Inspired by various institutionalist and evolutionary economics insights and drawing from the 'knowledge economy' discourse, these approaches invariably identify localised forms of *knowledge* production and *learning* and various supporting *institutional* settings as the key factors behind regional economic growth and prosperity (see Cooke, 1998, 2002; Malecki, 2000; MacKinnon et al., 2002; for recent reviews). Consequently, economically successful regions are conceptualised as 'learning regions' (Florida, 1995a; Asheim, 1996; Morgan, 1997; Boekema et al., 2000a) allegedly acting as 'collectors and repositories of knowledge', with a strong ability to learn and innovate, supported by an appropriate regional 'institutional thickness', 'untraded interdependencies' and 'entrepreneurial culture' (Amin and Thrift, 1994a; Storper, 1999; Saxenian, 1994). These institutional endowments remodel production structures into 'clusters' (Porter, 1990, 1998) organised around regionally based production nodes (cf. Amin and Thrift, 1992). Thus, 'resurgent regions' (Storper, 1999) and 'region-states' (Ohmae, 1993) are theorised with the power to determine their own economic fortunes (Florida, 1995a; Storper and Scott, 1995; inter alia) or to 'choose' their prosperity (Porter, 1990, 1998), and are claimed to be the most important organisational units of today's global 'knowledge-intensive capitalism' (Florida, 1995a; Storper, 1995a, 1997a, 1999; inter alia).

The proposition that regional prosperity is a 'matter of choice' (cf. Porter, 1998) is of particular significance to former industrial regions on the economic periphery of Europe. Indeed, such regions are keen to overcome their structural legacies by 'forgetting' old, obsolete and declining industrial paths, and 'learning' how to emulate new 'post-industrial' or 'knowledge-intensive', high-value economic trajectories (cf. Cooke, 1995a; Morgan, 1997; Cooke and Morgan, 1998; Morgan and Nauwelaers, 1999; MacLeod, 2000; Lagendijk, 2000; see also Storper, 1995b). The vision of regions *themselves* 'learning' how to prosper in a 'new economy' is also attractive for national and supra-national bodies with squeezed public finances. Replacing costly and allegedly obsolete and inefficient regional policies of the old Keynesian era, and being framed in the context of highly flexible, 'knowledge-intensive' capitalism, the 'learning region' stratagem is seen as a cheaper, yet more efficient, way of addressing regional problems (Florida, 1995b; Nauwelaers and Morgan, 1999; Malecki, 2000). Unsurprisingly then, 'knowledge' and 'learning-based' strategies have become popular with policy makers at local, regional, national and supra-national levels (Lagendijk, 1999; Lagendijk and Cornford, 2000; inter alia). More recently, various innovation-focused, network-centred and 'learning-based' strategies have also received substantial attention within the context of post-socialist transformations in Central and Eastern Europe[1] (Mrnjavac, 1997; Dyker, 1997; Swain, 1998; Dornish, 1999; Radosevic, 1998, 1999; Dyker and Radosevic, 1999; Knell et al., 1999; Petrakos, Maier and Gorzelak, 2000; van Zon et al., 2000; Mickiewicz and Radosevic, 2001; Petrakos and Tsiapa, 2001).

Despite its popularity in both academic and policy-making circles, the 'learning region' and similar 'fuzzy' concepts faced various 'sympathetic' and 'less sympathetic' critiques (Hudson, 1999; Lovering, 1998a, 1999; MacLeod, 2000; Markusen, 1999; Pike, 1998; Vigor, 2000; Oinas, 2000; van Gils and Oinas, 1997; Smith et al., 1999). These critiques have pointed at the fundamental weaknesses of the

[1] It could be argued that, within the post-socialist Eastern European context, 'learning' (and 'forgetting') gain extra meaning as regions and whole countries have to 'learn' how to embrace the market economy model, while 'forgetting' the legacies of the centrally planned society.

'learning region' paradigm and to open a debate on the dominant discourses within economic geography. This thesis aims to extend that critique while raising following questions: What are the implications of the emerging 'knowledge economy' for regions in the 'New Europe'? Can regions be conceptualised through learning and knowledge patterns? Can successful regions be seen as 'learning regions'? In other words, do their economic fortunes depend on their ability to create and disseminate knowledge, to innovate and learn? More fundamentally, is regional prosperity a 'matter of choice'? What is the role of regional institutions in promoting economic development? More specifically, can economically peripheral regions, through their institutions, improve their own economic performance? Can old industrial regions 'learn' new 'high road' post-industrial development trajectories? And finally, can a 'learning region' stratagem deliver more balanced economic development in the 'New Europe'?

This thesis will attempt to address the above questions through both a theoretical discussion of conceptual issues and an analysis of empirical evidence from two economically peripheral region-states of the 'New Europe' (Scotland and Slovakia). Arising from such examination, the thesis will support the view that economic geography concepts which rely on 'learning' and 'knowledge' as the most important (if not the only) factors behind regional economic prosperity have limited explanatory power. Indeed, in order to understand underlying causal processes, 'knowledge' has to be seen alongside of and in interaction with 'wealth' and 'power'. Consequently, a much more complex but also a more accurate picture emerges, which acknowledges the possibility of the circular and cumulative causation as significant part of regional economic development process. Furthermore, the thesis will suggest that 'regional institutions' and their power to influence regional economic trajectories should be seen within the context of wider social struggles over power, knowledge and wealth. These points will then provide a platform on which a possible alternative conceptual framework for the understanding of uneven regional development could be built. The thesis will outline elements of an alternative conceptualisation that highlights the explanatory power of 'socio-spatial divisions of labour' and 'socio-spatial flows of value' in understanding divergent regional trajectories in the 'New Europe'. Within such a framework, regions in general, and economically peripheral regions in particular, can be seen as constrained by their own historical legacies and by the imperatives of the wider political economy. Consequently, regions of the 'New Europe' are viewed as possessing limited room for manoeuvre in constructing sustainable economic trajectories.

This alternative argument has important policy implications for the 'New Europe'. The European Union (EU) is striving to become the most competitive 'knowledge economy' in the world (see EU, 2000), while attempting to undertake its historic enlargement through the inclusion of the countries of Central and Eastern Europe that have emerged from the ruins of state-socialism. In principle, these two commitments could be seen as positive steps. However, fundamental questions arise as to what kind of 'knowledge economy' will be promoted, what kind of 'Eastern enlargement' will be instituted, and what implications these processes will have for social and regional cohesion in the 'New Europe'. Conversely, it could be argued that the fate of economically weaker regions has important implications for the future of a wider European integration project itself. One way or another, the issues related to the challenges of, and prospects for, regional cohesion deserve thorough examination (cf. Amin and Tomaney, 1995a).

1.2 The structure of the thesis

The thesis will address the above issues in the following steps. **Part I** of the thesis will deal with conceptual issues related to the regional dimensions of the 'knowledge economy' and 'post-socialist' transformations. Following this Introduction, **Chapter 2** will critically review various versions of the 'knowledge economy' thesis, including the 'post-industrial society', 'information society', and the 'learning economy' concepts (Bell, 1973; Castells, 1996, 1997, 1998; Leadbeater, 2000; Lundvall and Johnson, 1994; inter alia). In doing so the chapter will point to the serious shortcomings and problems of these concepts. In particular, the notion that advanced capitalist economies are entering a 'new era' driven by knowledge, while overcoming the contradictions of industrial capitalism will be questioned. Instead it will be argued that the economy remains distinctively capitalist, profit-driven and continuously displays significant contradictory features. In addition, the abstract notion that the economy can be 'knowledge-driven' will be challenged, and a search for alternative ways of understanding the economy will be initiated. Elements of such an alternative framework will be suggested building on the strengths of institutional/evolutionary economics and more radical social science approaches. The chapter will support the view that the economy should be seen as an institutionalised social process, in which institutions are subjects, objects and outcomes of social struggles. The chapter will conclude that the concept of 'socio-spatial divisions of labour' and 'socio-spatial flows of value' may offer valuable insights into uneven economic processes within and between socio-economic systems.

The factual disintegration of the 'knowledge economy' thesis has profound implications for currently dominant economic geography approaches that will be reviewed in **Chapter 3**. These approaches see the *regional* dimensions of the 'knowledge economy' as being manifested through the alleged emergence of 'learning regions' (Florida, 1995a; Asheim, 1996; Morgan, 1997; Boekema *et al.*, 2000a; inter alia). As for peripheral regions, these approaches suggest that less favoured regions can emulate economic success by becoming 'learning regions'. A key institutional role in ensuring such a transition is ascribed to regional development agencies acting as *animateurs* of regional renewal (Morgan, 1997, 1998; inter alia). The base on which the 'learning region' concept is built will be critically examined. It will be argued that the concept suffers from serious shortcomings that include vague definitions, fuzzy conceptualisation, poor empirical support and an ambiguous policy message for less favoured regions. Similarly, the 'learning region' concept reflects the central flaw of the 'knowledge economy' thesis in neglecting the mutual relations between knowledge, wealth and power (see Chapter 2). These and other fundamental weaknesses discussed in the chapter will point to the need for constructing an alternative conceptualisation of uneven regional development. Building on arguments developed in chapter 2 and drawing mainly on the work of Smith et al. (2002), the concept of *socio-spatial divisions of labour* together with *socio-spatial flows of value* will be discussed as a possible way forward in building such an alternative framework. This framework places a strong emphasis on the role of historical legacies and the wider political economy in shaping regional economic trajectories such as those in the 'New Europe'.

Chapter 4 will focus the theoretical discussion onto the uneven geographies of the 'New Europe' and the regional dimensions of the post-socialist transformation in Central and Eastern Europe. Initially, the chapter will concentrate on arguments made by heterodox economists and social scientists that explicitly link the rise of the 'knowledge economy' with the fall of state-socialism. They argue that the demise of state-socialism could be explained as its inability to embrace the new modes of production associated with the emergent 'knowledge economy'. These arguments, however, will be subjected to critical discussion that will point to alternative ways of understanding the collapse of state-socialism, linking it instead with the circular and cumulative nature of knowledge, power and wealth in socio-economic systems. Therefore, the chapter will move to discuss the regional fragmentation which has been experienced in Europe in the last decade or so. It will be argued that the dominant (neo-liberal) explanation fails to account for the significant regional fragmentation observed. Instead, the strengths of both radical and institutionalist approaches will be mobilised to suggest an alternative way of looking at uneven regional development in the 'New Europe', with particular focus on regions and countries in 'transition'. The importance for regional fortunes of historical legacies, and the way these legacies interact with the current imperatives of international political economy, will be re-emphasised.

The alternative perspective on uneven regional development emerging from the discussions of Part I will be used subsequently to frame the analysis of the case study regions. These will be presented in **Part II** of the thesis. Initially, **Chapter 5** will recapture earlier theoretical arguments and will provide a synthesis of an analytical framework for the empirical study. The chapter will also provide a justification of the choice of the two regional cases and set out the research methods employed. The empirical research focused on two region-states – one located in the 'Western' periphery (Scotland) and one in the 'Eastern' periphery (Slovakia) of the 'New Europe' (see ***Figure 1.1*** in Annex). Both region-states, with varying success, engaged with strategies to promote the 'knowledge economy' in the last decade of so. Both seem to offer valuable empirical material on their own, while providing a sound basis for subsequent comparison.

Chapter 6 will present the empirical findings from the Scottish study. Scotland represents in the main an old industrial region of Britain, which suffered significant structural economic problems associated with de-industrialisation. More recently, however, there have been signs of economic renewal. In particular, (the attraction of key) 'new economy' sectors in Lowland Scotland and the emergence of the 'Silicon Glen' have become significant features of the Scottish economy. Throughout this period, Scottish Enterprise, the main Scottish development agency, has been consistently and actively implementing a stratagem akin to that advocated by the 'new regionalist' literature. These developments, together with continuous institutional build-up, have prompted speculation that Scotland is a 'learning region' mastering transition from industrial to 'post-industrial' or 'knowledge-intensive' capitalism (see MacLeod, 2000). The chapter will examine these claims while placing Scotland firmly within the context of historical legacies and the wider political economy.

The case of Slovakia will be presented in **Chapter 7.** Slovakia underwent a 'forced industrialisation' (Smith, 1998) within state-socialist Czecho-Slovakia after the Second World War. Following the fall of state-socialism and subsequent neo-liberal marketisation, Slovakia faced the collapse of its industrial economy and encountered severe economic problems. In part as a response to these 'transitional' problems, this region-state has emerged as an independent country while facing several simultaneous challenges: establishing independent state institutions; attempting to join the European Union; managing transformation from state-socialism to market capitalism; and simultaneously responding to the imperatives of the emerging 'global knowledge economy' by switching from industrial to 'post-industrial' economic trajectories. The analysis will reveal that the above processes, and their problematic nature, have played a significant role in the Slovak attempt to emulate the Central European 'Silicon Valley', seen by some as part of a reputed transformation towards a 'knowledge society' in Slovakia.

Following these empirical chapters, concluding reflections will be offered in **Chapter 8**, forming **Part III** as the final section of the thesis. The chapter will first distil the theoretical arguments developed through the thesis and then summarise the empirical findings through comparing and contrasting the Scottish and Slovak case studies. Finally, the chapter will offer a discussion of the policy implications of this research while highlighting challenges and prospects for regional cohesion in the 'New Europe'. It will be argued that less favoured areas are constrained in their efforts to build successful renewal strategies in the pre-dominantly neo-liberal economic environment of current times, and that more balanced regional development can be achieved only through the appropriate and sustained transfers of knowledge, wealth and power to marginalised people, regions and countries.

The **APPENDIX** of the thesis contains figures and tables, a list of interviews undertaken, a copy of a questionnaire used during interviews and a list of abbreviations.

PART I

Chapter 2:

The knowledge economy and theories of post-industrial transformation

2.1 Introduction

This thesis is primarily concerned with the fate of old industrial *regions* within the emergent 'knowledge economy' in the context of the 'New Europe'. Importantly, one of the arguments supported by this thesis is that regional economic processes cannot be satisfactorily understood without taking into consideration processes and changes in the wider political economy. Therefore, before discussing *regional* dimensions of the 'knowledge economy' (in Chapter 3), it is appropriate to address the question of what is the 'knowledge economy', and how post-industrial transformations should be understood. This Chapter thus aims to critically examine the theories and concepts that advocate the emergence of the 'knowledge economy' or 'knowledge-driven economy' (KE)[1].

Initially, section 2.2 will argue that the concept of an economy driven by knowledge appears in the literature under various guises and names. The most influential versions of these will be reviewed under the headings of the 'post-industrial society', 'information society', 'knowledge economy' and 'learning economy'. At the heart of these concepts lies a conviction that knowledge is now the fundamental economic resource (Bell, 1973; Lush and Urry, 1994; Castells, 1996; Giddens, 2000, Leadbeater, 2000; Cooke, 2002; inter alia), and learning is the most important economic process (Ludvall and Johnson, 1994). For many observers, the transformation towards a (global) 'knowledge economy' is inevitable, but nonetheless desirable, because it brings the hope that the old socio-spatial divisions and contradictions of industrial capitalism will give way to more socially and spatially balanced development as the emerging new 'knowledge age' sets in (Bell, 1973; Leadbeater, 2000; Hodgson, 1999; inter alia).

Although such outcomes would indeed be seen as desirable, the Chapter argues that the latter suggestions may prove to be largely illusionary. Indeed, while the concept of the 'knowledge-driven economy' may seem to offer an attractive account of contemporary socio-economic change, the nature of the allegedly emerging 'knowledge economy' is often misunderstood, as the concept itself suffers serious theoretical shortcomings. These shortcomings will be addressed in sections 2.3 and 2.4. In particular, critics have already highlighted the ambiguous nature of various versions of the 'knowledge society', the limits to economic 'learning', the flaws of the 'post-industrial' thesis, the contentious role of information technology, and the continuing pertinence of capital-labour relations (Webster and Robins, 1986; Cohen and Zysman, 1987; Lyon, 1988; Webster, 1995, 1997; Hudson, 1999; May, 2000, 2002). Furthermore, it has been argued that, far from removing old socio-economic contradictions, the 'knowledge economy' may actually reinforce, and even create, new contradictions (Jessop, 2000).

Nevertheless, the key assumption of the 'knowledge-driven economy' – that knowledge is the most important factor of wealth creation – has to date remained largely unchallenged. This Chapter will therefore address this conceptual lacuna and examine the knowledge-wealth relationship from a critical perspective. Section 2.4 will argue that the assumption of a simple and one-directional relationship – knowledge creates wealth – is wanting, as it overlooks the possibility of a reversed causality – wealth creates knowledge – and does not take into account the influence of another crucial factor: power. These fundamental 'omissions' render the logic of the '*knowledge*-driven economy' thesis questionable, and open the way for an alternative conceptualisation of current socio-economic transformations.

[1] The terms 'knowledge economy' and 'knowledge-driven economy' will be used interchangeably through the thesis.

The elements for such alternative conceptualisation will be offered in section 2.5. Building partly on 'radical' and 'institutional/evolutionary' approaches, this alternative approach begins by acknowledging that the economy should be conceptualised as an 'institutionalised social process'. As such, the economy (or rather 'socio-economy' or 'political economy') is shaped by institutions, which can simultaneously be seen as the objects, subjects and outcomes of struggles over knowledge, wealth and power. The section will go on to support the view that there are important continuities with the past struggles which have been unfolding *within* the framework of the capitalist political economy. Subsequently, it will suggest that the concepts of the 'socio-spatial divisions of labour' and 'socio-spatial value chains/networks' may prove to be useful tools to approach socio-economic transformations within such an economy. Finally, section 2.6 will formulate some conclusions based on this analysis and highlight their implications for the remainder of the thesis.

2.2 What is the 'knowledge-driven economy'?

This section addresses the question as to what the 'knowledge-driven economy' actually is. This is not an easy task given the plethora of approaches that are grappling with recent social, economic and technological changes such as the rising economic share of services, technological progress, the perceived growing importance of research and development (R&D) and the overall knowledge-intensity of production in advanced capitalist societies. Indeed, since Daniel Bell (1973) published his influential book *The Coming of Post-industrial Society*, his vision of the 'knowledge society' keeps coming back. Various similar approaches have been devised over the years, all sharing a powerful belief that we have been entering a new era of information, knowledge, learning and technology. The shift towards this new era, we are told, represents a radical change in the way society and economy works. The 'new' economy allegedly plays according to 'new' rules. Knowledge has become the most important source of wealth creation, while information and communication technology has secured productivity gains and sustainable growth. 'Old' institutions such as trade unions and nation-states have become obsolete. Contradictions and class struggles are being replaced by flexible networks based on co-operation, trust and knowledge-sharing. To many observers, the shift towards the 'global knowledge economy' seems both inevitable and desirable. They believe that the emerging society will be socially more equal (see below) and that spatial disparities will be overcome, as regional prosperity becomes a matter of choice (see Chapter 3 for a detailed discussion).

Invariably, these approaches jointly herald the emergence of the new 'knowledge era', while differing in emphasis they place on various dimensions of such 'era'. Some approaches specifically refer to the process of a fading industrial economy and the ascendancy of services by predicting the emergence of the **'post-industrial society'** (Bell, 1973; Richta, 1968; Touraine, 1974; Prosche, 1993), **'service economy'** (Bell, 1993) or **'new service economy'** (Gershuny and Miles, 1983; Andersen et al., 2000). Others highlight the perceived growing importance of information and stipulate the rise of the **'information(al) economy'** (Machlup, 1962, 1980; Porat, 1977; Castells, 1993, 1996; Boisot, 1998), **'information society'** (Miles, 1988; W.J. Martin, 1988, 1995; Carnoy et al., 1993; Duff, 2000) or **'information age'** (Castells, 1996, 1997, 1998). Meanwhile, another group of authors anchor their conceptualisation in the information and communication technology to argue that we are witnessing the coming of **'digital capitalism'** (Schiller, 1999), or the **'electronic economy'** or **'digital economy'** (Tapscott, 1995) out of whom are fundamentally representative of a **'weightless economy'** (Coyle, 1997; Quah, 1997) or **'intangible economy'** (Goldfinger, 1996). Others argue that such a society is best described as the **'wired society'** (Martin J., 1978) or **'network society'** (Castells, 1996). Several writers have examined changes in the capitalist production and highlighted the prominence of flexibility of the new era through concepts such as **'flexible specialisation'** (Piore and Sabel, 1984) and **'post-Fordism'** (see Amin, 1994a). Many writers remain hopeful that more palatable capitalism will emerge from the current socio-economic changes in the form of **'soft capitalism'** (cf. Thrift, 1998) or **'associational economy'** (Cooke and Morgan, 1998). Some believe that these changes are signs of the economic state of **'late capitalism'** that will eventually give way to the **'post-capitalist society'** (Dahrendorf, 1959; Drucker, 1993). Meanwhile, some authors refer to the emergence of the new era by using a simple term, the **'new economy'** (Kelly, 1998; Leadbeater, 2000). However, more recently, the discourse seems to return back to the notions of knowledge, learning or reflexivity, as principal characteristics of the emergent society. Thus the notion that we are witnessing a transformation towards the **'knowledge society'** (Bell, 1973; Drucker, 1993), **'knowledge economy'** (Leatbeater, 2000; Cooke, 2002; inter alia), **'knowledge capitalism'** (Burton-Jones, 1999), **'reflexive capitalism'** (Storper, 1997a) or **'learning economy'** (Lundvall and Johnson, 1994; Gregersen and Johnson, 1997; Storper, 1997a; Hodgson, 1999) has proliferated. Furthermore, the theme of the **'knowledge economy'**, **'knowledge-based economy'**, **'knowledge-intensive economy'**, **'knowledge-driven economy'** or **'global knowledge economy'** has become prominent in *both* policy documents (OECD, 1996a, 1996b, 1997; EC, 1996, 1997a, 1997b; EU, 2000; DTI, 1998a, 1998b) and theoretical discussions (Giddens, 2000; Stiglitz, 1999; Thurow, 1999; Hodgson, 1998a, 1999; Leatbeater, 2000; Hutton and Giddens, 2000; Cooke, 2002).

It could be argued, however, that the above terms might be deceptive. Indeed, many of them lack a clear definition and others are often used loosely and interchangeably. It is often the case that completely different terms are used to describe the same phenomenon, while many writers use similar if not the same terms to describe entirely different, if not contradictory processes (Sokol, 2002). Disentangling the meaning of each of the above concepts is, however, beyond the scope of this thesis. In an attempt to answer the question what is the 'knowledge-driven economy', four influential treatises will be briefly presented. These will be clustered under four headings, namely the 'post-industrial society', 'information society', 'knowledge economy' and 'learning economy'.

Under the heading 'post-industrial society', the original version of such society as portrayed by Bell (1973) will be revisited. Although clearly written as a 'fiction' or a 'logical construction what *could* be' (ibid, p.14, emphasis orig.), Bell's vision of a 'post-industrial society' or 'knowledge society' has become one of the most influential paradigms of its kind, an oeuvre that 'set the terms of debate' (Webster, 1997, p.106). Despite the fact that the central arguments of Bell's thesis seem to be flawed (see section 2.3) many of his 'post-industrial' ideas have been 'recycled' in later concepts. One of these is the influential concept of the 'information society'. Under this heading the work of Manuel Castells (1996) will be highlighted. Even for his critics, the opus of Castells (1996, 1997, 1998) on the *information age* 'certainly stands comparison with the seminal work of Daniel Bell' (Webster, 1997, p.106) as 'the most important analysis of the character of the society in which we live and the directions of its development from a social scientist in over twenty-five years' (ibid, p.105). Under the heading of the 'knowledge economy' the work of Charles Leadbeater (2000) will be briefly summarised. It could be argued that Leadbeater's work is based on 'the power of fantasy' (see ibid, p.219). But as importantly pointed out by a critic, '[w]hat makes this book noteworthy is its endorsement by British Prime Minister Tony Blair and Leadbeater's major contribution to the British government's recent white paper *Building the Knowledge Driven Economy*' (May, 2000, p.145). Indeed, Leadbeater could be seen as an author whose work has been widely read by the public and who exercised considerable influence on policy makers in the UK. Importantly, Leadbeater also acted as an advisor to the Scottish administration while drafting strategy documents on how to build a 'knowledge economy' in Scotland (cf. Chapter 6). The fourth version of the economy in the 'knowledge era' will largely be based on the contribution by Lundvall and Johnson (1994) and their influential concept of the 'learning economy'.

There is no doubt that these four approaches represent only a 'tip of the iceberg' in an already wide and continuously expanding debate on the nature of the allegedly emerging 'knowledge-driven economy'. Consequently, an objection could be raised against the above selection of four approaches that they are but caricatures of a much larger body of literature. However, it is argued here that these four approaches are 'good' caricatures in that they highlight the main lines of argument that have been subsequently embraced by the 'new' economic geography that will be critically scrutinised in Chapter 3. In addition, all four concepts reviewed offer some vital links to any discussion on the fate of countries and regions in Central and Eastern Europe, by connecting the rise of the 'knowledge economy' with the fall of state-socialism. This latter hypothesis will be further discussed in Chapter 4.

Post-industrial society

The first concept to be presented is that of the American Daniel Bell (1973) - the vision of emerging society laid down in his influential book *The Coming of Post-*

Industrial Society. It is useful to note right at the beginning that Bell himself used the term 'knowledge society' or 'information society', 'all of which are somewhat apt in describing salient aspects of what is emerging' (Bell, 1973, p.37). Eventually, he gave preference to a term '*post*-industrial society' (hereafter PIS) that would underline a 'sense of living in interstitial time' (ibid, p.37). Bell observed the trend of a declining industrial economy and a rising share of the service sector in the US economy together with a notable expansion of science, research and development (R&D), business services and rising numbers of scientists, researchers, academics and professionals. Writing in the early 1970s, he predicted that industrial societies would undergo a massive transition within thirty to fifty years (ibid, p.x) resulting in an emergence of a 'post-industrial society' that would be 'based on services' (ibid, p.127). Within such society '[w]hat counts is not raw muscle power, or energy, but information' (ibid, p. 127) and knowledge would become part of its 'axial principle' (ibid, p.20). 'Post-industrial society', Bell claims, 'is organised around knowledge, for the purpose of social control and the directing of innovation and change' (ibid, p.20). The nature of the shift towards such society would be 'economic' (a shift from manufacturing to services), 'technological' (the centrality of new science-based industries) and 'sociological' (the rise of a new technical *elite*). At the heart of this transition would be a changeover from goods-producing (industrial) society to a service-producing, 'information or knowledge society' (ibid, p.487). The 'decisive category' of services in the 'post-industrial society' would be health, education, research and government (ibid, p.15) represented by the expansion of 'new intelligentsia – in the universities, research organisations, professions, and government' (ibid, p.15).

Bell acknowledges that knowledge was always important (ibid, p.20) but stresses that it is 'the change in the character of knowledge itself' that is fundamentally new. By this he means the rise of '*theoretical* knowledge' and the *codification* of such knowledge (as opposed to empiricism and a trial-error approach) (ibid, p.20). Indeed, he claims, it is theoretical knowledge (science) that proves crucial, both for economic production (business innovation) and public policy formulation. Thus a university, as a site of production of theoretical knowledge, becomes a 'primary institution' of the 'post-industrial society', alongside with 'academy institutes' and 'research corporations' (ibid, p.116-118). For Bell, knowledge is what is 'objectively known, an *intellectual property* [sic], attached to a name or a group of names and certified by copyright or some other form of social recognition' (ibid, p.176, emphasis orig.).

The emerging society, despite being managed with an increasing support of science and knowledge, would not be friction-free and unproblematic. This is because knowledge itself becomes a commodity, possession of which reinforces the power of the owner. Thus, Bell argues, an emerging 'knowledge class' (ibid, p.213-221), scientists, engineers professionals and white-collar service workers form a dominant social group or 'axis' around which a new social hierarchy would be organised. In the 'post-industrial society', Bell admits, battles over knowledge and wealth would be fought. These, however, would be nothing of the type and scale of capital-labour class struggle envisaged by Marx (see below). In fact, there would be no need for such struggles. Indeed, this new society, according to Bell, would be more prosperous and more equal, not least because technology becomes the engine of rising living standards and reducing inequalities (ibid, p.188). Rising living standards would further encourage the rise of *service* employment first in transportation and public utilities, and then in personal services such as restaurants, hotels, auto services, travel, entertainment and sport, 'as people's horizons expand and new wants and tastes develop' (ibid, p.128). Subsequently, a 'new consciousness begins to intervene', argues Bell, and the 'claims to the good life' would be met by improvements in 'two areas that are fundamental to that life – health and education' (ibid, p.128). This would include the 'elimination of disease' so that the increasing numbers of people 'can live out a full life', and efforts to 'expand the span of life'. Another 'crucial feature' of the 'post-industrial society would be education, because 'the growth of technical requirements and professional skills makes education, and access to higher education, the condition of entry into the post-industrial society itself' (ibid, p.128). Finally, Bell argues, 'the claims for more services and the inadequacy of the market in meeting people's need for a decent environment as well as better health and education lead to the growth of government, particularly at the state and local level, where such needs have to be met' (ibid, p.128).

Thus, for Bell, the 'post-industrial society' is an unmistakably better and more humane society, it is a 'communal' society, where 'the social unit is the community rather than individual' (ibid, p.128) and where a balance is achieved between 'economizing' and 'sociologizing' (ibid, p.269-298). Despite the strong emphasis on community spirit, however, Bell is far away from the idea of the communist society. In fact, his book *The Coming of Post-Industrial Society* can be read as an anti-Marxist manifesto. Bell disputes Marx in several important points. First, he explicitly challenges Marx's idea of the increasing alienation of the working class and subsequent growing contradictions within a capitalist society. For Bell, the 'labour issue' would be *less* important (ibid, p.163-164) as the (industrial) working class would shrink if not disappear altogether in the 'post-industrial society' (see ibid, p.40, p.148-154). As a consequence there will be no proletariat to trigger the socialist revolution and the whole society will become *less* prone to social conflict. Indeed, as Bell observes, a century after Marx's death, capitalism is 'still dominant in the Western world' (ibid, p.372).

Bell then moves on to discuss countries where the socialist revolution *did* occur. He starts by observing that these are not the most advanced industrial countries as predicted by Marx. Instead, 'paradoxically, communist movements had come to power almost entirely in agrarian and pre-industrial societies, where "socialist planning" was largely an alternative route to industrialisation, rather than the succession to capitalism' (Bell, 1973, p. 372). Drawing mainly on the teamwork of the Czecho-Slovak Academy of Science led by Radovan Richta (1968), Bell then goes on to weight the chances of the (then) existing socialist countries. He supports the view that in the light of a 'post-industrial' era, these countries will face increasing challenges, not least because of the imperatives of the scientific-technological revolution, the increasingly ambiguous role of the working class and the conflicting interests of the emerging technical intelligentsia (ibid, p.106-112). This argument provides a crucial link between the concept of the 'post-industrial' or 'knowledge economy' in the West and the eventual fall of state-socialism in the East and will be revisited in Chapter 4 of the thesis.

Meanwhile it has to be acknowledged that while the picture of 'post-industrial society' drawn by Daniel Bell was clearly idealistic (see section 2.4) it proved highly influential in forming views on socio-economic transformation of advanced capitalist countries. In particular, the overriding idea of a succession from an 'agricultural society' to an 'industrial' to 'post-industrial' or 'knowledge' society has become widely accepted (see also the concept of the 'Third Wave' by Toffler, 1980). Thus, as David Lyon (1988, p.2) noted, 'post-industrial' ideas have been 'recycled' in later concepts.

Information society

One such concept is represented by the 'information society' (IS) thesis. It replicates some main arguments of the 'post-industrial society' and there is no surprise that the two terms have been used interchangeably (see Webster, 1995; Duff, 2000). In particular, it shares the view that advanced industrial societies are undergoing a dramatic shift towards a new kind of society. IS theorists also agree in respect to the underlying cause of such a shift, what is the growing importance of knowledge and information in social and economic processes. To use a definition by William J. Martin, the 'information society' is

> '... a society in which the quality of life, as well as prospects for social change and economic development, depend increasingly upon information and its exploitation. In such a society, living standards, patterns of work and leisure, the education system and the marketplace are all influenced markedly by advances in information and knowledge' (W.J. Martin, 1995, p.3).

What could be said to distinguish the IS thesis from the PIS is that it focuses primarily on one aspect of the emerging society, the increasing importance of *information*. Consequently, central attention is given to technologies, especially those that assist the production, processing and exchange of information – *information technology*. In accordance with Bell, technology is seen as a source of rising living standards and reduced social inequalities. In contrast to Bell, however, who believed that Schumpeter's 'uncharted sea of technology' should be effectively controlled by society (Bell, 1973, p.167), in most versions of the IS it is technology that impacts on society. This impact, however, is considered rather benign and bold claims have been made about how technology in general and ICT in particular will improve the world we live in. A vast amount of literature has been devoted to the topic, including seminal contributions by Masuda (1968, 1981, 1985), Machlup (1962, 1980), Porat

(1977) and Miles (1988). It seems that even IS theorists themselves seem to have problems coping with this expanding literature (see Duff, 2000).

Probably the best way to approach the IS thesis is through the work of Manuel Castells (1996, 1997, 1998) who offers perhaps the single most influential, and somewhat more critical, account of the IS. In broad terms Castells replicates the idea that society is undergoing a transformation from the industrial society to a new, as he terms it, 'information age'. At the core of this transformation, according to Castells (1996) is a succession of 'modes of development', from an industrial to informational. Castells admits that 'knowledge and information are critical elements in all modes of development, since the process of production is always based on some level of knowledge and in the processing of information' (ibid, p.17). However, he maintains that

> '...specific to the informational mode of development is the action of knowledge upon knowledge itself as the main source of productivity' (ibid, p.17).

Castells further makes clear that this new source of productivity, the action of knowledge upon knowledge itself, has been enabled by the new *information technology*. Defined rather broadly to encompass all technologies handling or manipulating information (including also genetic engineering; ibid, p.30) this technology is implicated

> '...in a virtuous circle of interaction between the knowledge sources of technology and the application of technology to improve knowledge generation and information processing' (ibid, p.17).

According to Castells, the emergence of the 'informational mode' *does* represent a clear departure from the previous industrial era, thus reproducing the overall framework set by Bell – the shift from an 'agrarian' to 'industrial' to 'post-industrial' or 'informational' economy. What distinguishes Castells is that he does not fully share Bell's optimism for the emerging society. Indeed, Castells is careful to emphasise that the 'informational mode' of development emerging in the West is distinctively capitalist. For Castells believes that Western societies do not experience a shift beyond capitalism, but a shift from 'industrial capitalism' to a different form of capitalism - 'informational capitalism'. Consequently, some problems associated with capitalist society are likely to persist, if not even be aggravated, through the ongoing transformation. In particular, Castells (1997) is deeply concerned with the likelihood of growing social fragmentation. This critical point will be revisited in section 2.5.

Another interesting feature of Castells's account is his attempt to deal with the perceived globalisation of economic and social life. After advancing the idea of the '*newest* international division of labour' (Castells, 1996, p.106-147; see also Castells, 1993), he goes on to argue that the central economic logic of 'informational capitalism' revolves around the emergence of the 'network enterprise', and more broadly 'network society', underpinned by ever-spreading ICTs. For Castells, 'informational capitalism' is 'characterized by its specific culture and institutions' (1996, p.151) and drawing on various sources he comes to the conclusion that

> '[f]or the first time in history, the basic unit of economic organization is not a subject, be it individual...or collective (such as the capitalist class, the corporation, the state). As I have tried to show, *the unit is the network*, made up of variety of subjects and organizations, relentlessly modified as networks adapt to supportive environments and market structures' (ibid, p.198; emphasis orig.)

In his own words, the 'network enterprise' as the organisational form of the informational/global economy (ibid, p.171) can be characterised by an ability 'to generate knowledge and process information efficiently; to adapt to the variable geometry of the global economy; to be flexible enough to change its means as rapidly as goals change, under the impact of fast cultural, technological, and institutional change; and to innovate, as innovation becomes the key competitive weapon' (ibid, p.171-172). He adds that 'network enterprise' transforms 'signals into commodities by processing knowledge' (ibid, p.172) and that the glue that keeps the network together is to do with a 'cultural dimension' (ibid, p.199).

Another remarkable feature of Castells' work is an attempt to deal with the dramatic collapse of state-socialism in Eastern Europe. In the *End of Millennium*[2], Castells (1998) develops a powerful idea that the collapse of 'industrial statism' (as he calls state-socialism) has to be seen in the context of the 'informational economy'. This strongly echoes Bell's suggestions about the difficulties that state-socialist regimes may face vis-à-vis an emerging 'post-industrial society'. While Bell (1973) based his views on forecasting material, Castells was writing in the 1990s and has been able to provide detailed evidence of the Soviet Union's inability to cope with the rise of the 'informational mode' of development, leading to a growing technological lag with the West. He goes on to argue that while 'industrial capitalism' in the West has managed its successful transition to 'informational capitalism', 'industrial statism' in the East collapsed. Castells thus offers another important contribution (within the 'knowledge economy' rubric) to the debate over the demise of state-socialist regimes in Central and Eastern Europe and will be critically examined in Chapter 4.

Beyond Castells' work, it is important to note that the IS approach chimes well with different strands of economics that have placed technological change at the heart of their analysis. One such approach is the **'flexible specialisation'** thesis by Piore and Sabel (1984), in which technology is at the core of a promise of more efficient production techniques combined with more humane working conditions. According to Piore and Sabel (1984), new software-powered computer-based technology raises the prospect that producers will be able to 'flexibly specialise' and swiftly respond to market demand without changing machinery, thus reducing the likelihood of structural economic crisis. In addition to this, and in contrast to mass production, 'flexible specialisation' will allow workers to regain control over machinery and ultimately to improve working conditions. In broader terms, Piore and Sabel see the emergence of 'flexile specialisation' as the 'second industrial divide' in which much-vaunted technology can overcome certain structural constraints to capitalist development[3]. From a theoretical point of view, Piore and Sabel's work represented an important contribution to the post-Fordist debate[4]. Moreover, by suggesting that

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[2] Volume III of his trilogy

[3] In contrast, the other strategy proposed by Piore and Sabel (1984, p.252) in this context – the idea of 'Multinational Keynesianism' – is receiving hardly any interest in the recent debates.

[4] We do not have space to discuss Post-Fordism in any detail here. See Amin (1994b) and Tomaney (1991, 1994) in particular for informed reviews of this rich body of literature.

'flexible specialisation' work involves a particular spatial form (that of small, artisan-like districts) Piore and Sabel impacted directly on debates in economic geography (see Chapter 3).

Another influential account that considers technology as central to economic development is associated with the work of neo-Schumpeterians (Freeman, 1982; Freeman et al., 1982; Dosi et al., 1988; Freeman and Perez, 1988; Freeman and Soete, 1997). Building on Schumpeter's original thesis of the 'creative destruction' of technological innovation to account for changes in the economy, neo-Schumpeterians see ongoing economic transformations as shifts towards new **'techno-economic paradigms'**. The current shift, it is argued, represents the rise of the (knowledge-intensive) 'Fifth Kondratieff wave'[5] based on distinctive technologies such as microelectronics, digital telecommunications, biotechnology, robotics, and information systems. Interestingly, these technologies are precisely those identified by Castells (1996, p.30) as central to the 'Information Age'. What makes neo-Schumpeterians distinctive though, is their inclination to conceptualise the economy within a wider institutional environment and their argument that the shift towards the new paradigm has to be encouraged by appropriate institutional adjustments. This view strongly resonates with the concept of the 'knowledge economy' and 'learning economy' reviewed below.

Knowledge economy

The 'knowledge economy' (KE) and 'learning economy' (LE) concepts go beyond the IS thesis in several important aspects. First, they shift emphasis from *information* to much broadly defined *knowledge*, and second, they move their analytical focus from technology itself in favour of people, their knowledge and wider social contexts. In a sense the KE and LE concepts go back to the original PIS thesis but without Bell's bias towards the service sector. Instead, they usually emphasise the growing role of knowledge and learning through *all* sectors of the economy. Relatedly, some versions of the KE or LE are more inclined to go beyond codified technical knowledge as highlighted by Bell to include non-codified, tacit or informal forms of knowledge.

[5] See Dicken, 1998, p.146-151; Knox and Agnew, 1998, p.12-13; for useful overviews.

Nevertheless, the overall framework remains the same; KE celebrants reassert (as Bell did nearly a quarter of century ago) that industrial capitalism is undergoing a fundamental shift towards a 'knowledge-based' economy where knowledge is the most important resource.

A good example of such a conceptualisation of the KE can be found in the work of Alan Burton-Jones (1999). He starts by defining knowledge as 'the cumulative stock of information' (ibid, p.5) and urges one to go 'beyond the limited concept of an information-based economy to the broader and more powerful concept of a knowledge-based economy' (ibid, p.6). The following lines from his *Knowledge Capitalism* summarises rather well the basic beliefs on which such a KE concept is built:

> 'Since ancient times, wealth and power have been associated with the ownership of physical resources. The traditional factors of production, materials, labour, and money, have been largely physical in nature. Historically the need for knowledge has been limited, and access to it largely controlled by those owning the means of production. Steam power, physical labour, and money capital largely facilitated the Industrial Revolution . . . In contrast, future wealth and power will be derived mainly from intangible, intellectual resources: knowledge capital. This transformation from a world largely dominated by physical resources, to a world dominated by knowledge, implies a shift in the locus of economic power as profound as that which occurred at the time of the Industrial Revolution. We are in the early stages of a "Knowledge Revolution"' (ibid, p.3)

He then goes on to argue that the 'world's stock of knowledge is today growing faster than ever before' and that in parallel to this our reliance on traditional physical forms of capital is declining (ibid, p.6) as knowledge becomes a central factor of production (ibid, p.3). However, for Burton-Jones, the 'Knowledge Revolution' falls short of challenging fundamental tenets of capitalism (ibid, p.20) not least because '[s]ince the overthrow of communism (i.e. state-controlled capitalism) free market capitalism is the only game in town' (ibid, p.20). Central to the emerging 'knowledge capitalism' is the 'knowledge firm', whose primary role is the protection and integration of specialised knowledge (ibid, p.30), that is, beyond capital accumulation (see ibid, p.20). For the 'knowledge firm', knowledge is the key productive resource, knowledge is acquired by and, in the case of tacit knowledge, stored by individuals (ibid, p.30). Indeed, Burton-Jones insists that the 'firm's most valuable knowledge capital tends to reside in the brains of its key workers' but adds that 'ownership of people went out with the abolition of slavery' (ibid, p.22). Without realising an apparent contradiction, he then goes on to discuss how the 'key productive resource' (knowledge) is to be efficiently used and, importantly, *protected* by firms. This, of course, as Burton-Jones points out, involves the question of legal protection such as copyrights, trademarks and trade secrets (ibid, p.30) – an issue that will be revisited later in the Chapter.

In comparison, Charles Leadbeater (2000) has offered a more intriguing version of the KE implying a much more radical vision of society. Indeed, while Burton-Jones believes that the goal of 'knowledge capitalism' is, at the end of the day, *profit*, Leadbeater (2000) evokes a vision of a society that would transcend such a profit-motive. Instead, society should be organised around *knowledge* itself and society's ultimate goal should be the creation and *spread* of knowledge (ibid, p.17, p.222). The spread of knowledge, representing both 'economic opportunity and political empowerment' (ibid, p.222), lies at the heart of his utopian vision of a more democratic and meritocratic society and constitutes the core of the emerging 'knowledge economy' or 'new economy' (terms used interchangeably). In such an economy, knowledge is a 'dynamo' of economic progress (ibid, p.235) and the 'generation, application and exploitation of knowledge is driving modern economic growth' (ibid, p.ix). Thus despite a self-proclaimed radicalism (see below), Leadbeater seems to borrow several key ideas from Bell (1973). Indeed, strongly echoing Bell, Leadbeater (2000) suggests that 'new ideas and technologies ... are the well-springs of higher productivity and improved well-being' (ibid, p.4), knowledge 'has become a commodity' (ibid, p.31), while 'knowledge workers' become a dominant (and empowered) form of work. For Leadbeater, as for Bell a quarter of century ago, it is scientific and/or codified knowledge that is central to economic development (Leadbeater, 2000, p.31, 35); knowledge is not just one among many resources, knowledge 'is *the* critical factor in how modern economies compete and how they generate wealth and well-being' (ibid, p.36; emphasis orig.).

Leadbeater also echoes Bell's ideas on the balance between 'economizing' and 'sociologizing' (see above) when he claims that for the above fundamental goal, the creation and spread of knowledge, it is necessary to harness the power of *both* 'markets' and 'community' (ibid, p.19). In other words, 'financial capital' and 'social capital' must work in harmony (ibid, p.231), and to achieve this harmony, institutions have to be re-designed to reconcile their respective competing demands. It is for this reason that Leadbeater sees a need to undertake a 'radical modernising project' (ibid, p.xii) or even 'institutional revolution' (ibid, p.xi). Such 'institutional revolution' is necessary, because '...we are on the verge of the global [21st century] knowledge economy, yet we rely on national institutions in [19th century] industrial economy' (ibid, p.x). Thus, allegedly outdated 'old' institutions such as governments, trade unions and companies, but also banks, schools, universities and public services have to undergo a radical shake-up to meet the challenges of the emerging new economy. What emerges from this transformation is a 'third way' between financial capitalism and social capitalism (*sic*), where finance capital, knowledge capital and social capital will be combined in a 'virtuous circle of innovation, growth and social progress' (ibid, p.14). Thus the picture of society that Leadbeater is trying to paint is very similar to that evoked by Bell. It is a picture of society that will be both more prosperous and more equal and a society that should be both innovative *and* inclusive (Leadbeater, 2000, p.236), it is in fact a 'post-capitalist' society (see ibid, p.167-168).

As society becomes more dependent upon knowledge creation, Leadbeater argues, so 'trust and mutuality' become 'stronger organising principles' (ibid, p.167). The challenge is to create 'open rather then closed, forms of trust' (ibid, p.167). For Leadbeater, the Soviet Union was 'a good example of a closed, low-trust society, dominated by a corrupt hierarchy' (ibid, p.197), while Silicon Valley 'is perhaps the closest to an economy which is both innovative and open while being capable of generating high degrees of co-operation and trust' (ibid, p.167).

Leadbeater acknowledges that so far the rise of the 'knowledge economy' has been accompanied by increasing social and spatial inequalities (ibid, p.11-12). He nevertheless believes that these should be addressed by 'organising our lives and our societies around self-improvement and learning' (ibid, p.223). Furthermore, people and nations should open themselves to globalisation, because '[i]f we turn our backs on the global economy, we turn our backs on the most vital force in modern societies: the accelerating spread of knowledge and ideas' (ibid, p.xi). Indeed, it is '[t]hrough global trade in products and services people learn and exchange the ideas that in turn drive economic growth' (ibid, p.xi). Meanwhile, it is salutary to acknowledge that the 'third way' language that Leadbeater uses in support of his vision of innovative and inclusive society, resonates with the 'learning economy' concept inspired by evolutionary economics.

Learning economy

The 'learning economy' concept is strongly associated with a seminal contribution by Lundvall and Johnson (1994). In an interesting contrast to the utopian proposals of Leadbeater (2000), Lundvall and Johnson (1994, p.23) are claiming to focus on 'what is' rather than 'what should be'. The starting point of the 'learning economy' (LE) is the argument that if *knowledge* is the most fundamental resource in our contemporary economy, then *learning* is 'the most important process' (Lundvall and Johnson, 1994, p.23). Although Lundvall and Johnson admit that knowledge always has been a 'crucial resource' for the economy, and was in the past 'layered in traditions and routines', they argue that knowledge and learning have more recently become much more fundamental resources than before (ibid, p.24). In particular, post-Fordism 'has brought into being new constellations of knowledge and learning in the economy' (ibid, p.24) mainly through the development of ICTs, flexible specialisation and, finally, changes in the process of innovation (ibid, p.24-25). These changes are bringing challenges that firms have responded to by changing organisational forms and by building alliances in order to gain access to a more diversified knowledge base (ibid, p.25). This implies 'broader participation in learning processes' to include all layers within the firm, the development of 'multi-skilling and networking skills' and enhancing 'capacity to learn and to apply learning to the processes of production and sales' (ibid, p.25-26). This is why Lundvall and Johnson 'regard...capitalist economies not only as knowledge-based economies but also as "learning economies"' (ibid, p.26). They offer the following definition of the 'learning economy':

'The learning economy is a dynamic concept; it involves the capacity to learn and to expand the knowledge base. It refers not only to the importance of the science and technology systems – universities, research organisations, in-house R&D departments and so on – but also to the learning implications of the economic structure, the organisational forms and the institutional set-up' (ibid, p.26).

At the core of the 'learning economy' are apparently firms that 'start to learn how to learn' (ibid, p.26) and that are able to handle various types of knowledge. Lundvall and Johnson distinguish at least four categories of knowledge: *know-what, know-why, know-who (when and where)* and *know-how* (ibid, p.27). The first category, *know-what,* represents knowledge about 'facts'. The meaning of this is probably close to that of 'information'. The, second category, *know-why,* refers to scientific knowledge of principles and laws of motion in nature and in society. This category, therefore, seems to correspond well with the term 'theoretical knowledge' used in Bell's vision of 'post-industrial society'. This kind of knowledge, Lundvall and Johnson argue, is extremely important for technological development (ibid, p.27). The third term, *know-who,* (together with *know-when* and *know-where*) is already a more complex construction that reaches a sphere of specific social relations and time-space dimension. A simple example of *know-who* can be a situation when for a successful innovation it is more important to know key persons than to know basic scientific principles (ibid, p.28). An example of *know-when* and *know-where* can be an economically useful knowledge about markets with its spatial and temporary dimension. Finally, *know-how* refers to practical skills in production or other spheres of economic activity (ibid, p.28).

Lundvall and Johnson (1994) then address different aspects of *learning.* Importantly, they do not understand learning as a simple absorption of science and technical knowledge. Rather, they define it more broadly as learning (about) changes in economic structures, organisational and institutional forms. Learning is presented as a dynamic and interactive process aimed at the accumulation of knowledge at the level of the firm and the economy as a whole. Learning is present in both production and consumption processes and is expressed through 'learning by doing' and 'learning by using'. From the point of view of permanent renewal (learning) and adaptation of economic and organisational structures, Lundvall and Johnson have also introduced an innovative term 'forgetting' (ibid, p.40). They argue that the 'learning economy' should not only preserve and store its pool of knowledge, but also be able to 'forget'. 'Forgetting' at the level of individual workers refers to their ability to abandon obsolete skills and professional expertise. An example of 'forgetting' at the level of firm or economy includes closing down ailing branches or whole sectors. Thus, the 'learning economy' is supposed to intelligently manage continuous self-organised learning (and forgetting).

Finally, Lundvall and Johnson make a point that the successful 'learning economy' is 'neither a pure market economy nor a pure planned economy' (ibid, p.41). The 'learning economy', they claim, is and has to be a *mixed economy* in a 'very fundamental sense', with important roles for the public sector and for different kinds of policy. They argue that neither pure market nor pure hierarchy (understood as the planned economy) provide favourable conditions for innovation (p.34-35). They go on to suggest that the kind of favourable institutional environment needed for interactive learning and innovation exist within user-producer relationships, where a government can be in the position of 'user'. They note that within the successful economies,

> '...[n]ot only does the *private* sector coexist with a large *public* sector; the relative success of the market economies in terms of technical progress reflects, not the purity of the markets, but rather their impurities' (Lundvall and Johnson, 1994, p.35; emphasis added).

The idea of a 'middle way' between pure (private) markets and a public-dominated economy is akin to the version of the 'knowledge economy' portrayed by Charles Leadbeater (2000) to an extent resonates with the views of the most prominent 'third way' thinker Anthony Giddens (1994, 1998, 2000, 2001). 'Learning economy' thus conspicuously projects itself as a part of a 'third way' strategy, that emerges as a strong (although not clearly defined) practical and theoretical alternative to both the planned economy and market capitalism. More broadly, such 'third' or 'middle way' conceptualisations also have support in heterodox and evolutionary/institutional economics approaches (Williamson, 1975; Nelson and Winter, 1982; Hodgson, 1988, 1993, 1998a, 1999, 2001).

While internally heterogeneous, this group of approaches converges on the issue of institutions as having a crucial co-ordinating function for economic development (as opposed to unfettered competition between atomistic agents/firms). Importantly, evolutionary economists also see institutions as being reservoirs of knowledge. As Hodgson (1999, p.60) puts it, 'institutions store and support both tacit and explicit knowledge'. Interestingly, Hodgson (1999) himself offers definitions of both the 'knowledge-intensive economy' and 'learning economy' that allegedly emerge as two out of many possible scenarios[6] after 'the end of history'. For Hodgson, the 'knowledge-intensive economy' would still be a capitalist one (see ibid, p.214-215), but it would be an economy in which 'enlightened group of business leaders' is 'aware of the kind of democratic culture and participatory industrial relations that facilitate productivity'. Alongside 'collaborative and co-operative relationships between firms...against the neo-liberal insistence on fierce, price driven, market competition' (ibid, p.211), Hodgson suggests that '[s]uch a progressive movement of business people could find valuable allies among trade unionists and the population as a whole' (ibid, p.211). The 'learning economy' or 'market cognitism' (ibid, p.213), in contrast, is a scenario clearly 'beyond capitalism' (ibid, p.211-215) where the 'degree of control by the employer over the employee is minimal' (ibid, p.212). Hodgson argues that such an economy, 'would not be socialist, in any common sense of the word', but nevertheless, 'it is not capitalism' (ibid, p.213).

Hodgson's views thus expediently close the circle of contributions that herald the rise of the 'knowledge era' of one sort or other. Differing in important details, these contributions nevertheless seem to univocally support the idea that in the emerging 'new era' the economy is being driven by knowledge. But are we really witnessing a transformation towards a 'knowledge-driven economy'? Such a proposition will now be subjected to critical scrutiny.

[6] Hodgson (1999, p.214) portrays seven possible scenarios, three of which are capitalist, one state socialist, one market socialist and two go beyond capitalism, including that of 'learning economy' (market cognitism).

2.3 Transformation to the 'knowledge-driven economy'?

The approaches presented in the previous section all perpetuate a widely shared belief that industrial capitalism is undergoing a profound transition towards a new era organised around knowledge, information and technology. Most of the approaches suggest that while such a transformation is inevitable, it is nevertheless desirable, because it holds a promise of greater prosperity combined with reduced inequalities and the simultaneous dissolution of the contradictions of old industrial capitalism. Such an outcome could be seen as desirable, and there is no surprise that these approaches have gained a very prominent place in policy and strategy documents (see DTI, 1998a, 1998b; EC, 1996, 1997a, 1997b; EU, 2000; OECD, 1996a; inter alia). Yet, such desirable outcomes may prove to be largely illusionary while the nature of the allegedly emerging 'knowledge era' may be misunderstood. Indeed, as demonstrated below, various versions of the 'knowledge-driven economy' have been subjected to a critique that raises serious doubts as to whether or not we really are witnessing a transformation towards the 'knowledge economy'.

A critique of the 'post-industrial society'

The critique of the 'post-industrial' thesis has concentrated on the alleged shift from a goods-producing industrial economy to a service-based post-industrial economy. An important challenge to the idea of such shift has been raised by Cohen and Zysman (1987). Focusing on the production side of the economy, they maintain that not only it is the case that 'manufacturing matters'; manufacturing is, in fact, *central* to competitiveness. Furthermore, services and manufacturing are 'tightly linked' and subsequently the succession of manufacturing by services is doubtful. Fundamentally, '[t]here is no such a thing as post-industrial economy' (ibid, p. 261) insist Cohen and Zysman. Writing specifically in the US context, they further argue that losing manufacturing would mean losing high-wage services (ibid, p.3) and that if the economy is to remain competitive, 'manufacturing must automate, not emigrate' (ibid, p.3).

The latter point about the 'emigration' of manufacturing is an important one, because the shift of industrial production towards lower factor-cost countries has indeed represented a salient feature of economic restructuring of Western economies at least since 1970s (see Dicken, 1998; Harvey, 1989, p.165). Indeed, the process of de-industrialisation and tertiarization of the advanced capitalist economies should be seen in conjunction with this 'emigration' of manufacturing to 'newly *industrialised* countries'. Thus taking into consideration a wider global scale, the idea of a universal drive towards a 'post-industrial society' seems less compelling (Sokol, 2002, p.92). Instead, it draws our attention to the processes re-drawing the map of global divisions of labour (see below).

Another major problem of the Bell's account of the 'post-industrial society' is his failure to consider that people might satisfy their service requirements by investing in goods rather than in employing service workers (Webster, 1995, p.44). Indeed, following a detailed analysis of consumption patterns, Gershuny (1978) argued that '[i]nstead of buying services, households seem increasingly to be buying...durable goods which allow final consumers to produce services for themselves' (Gershuny, 1978, p.8; cited in Webster, 1995, p.45). Such a 'self-service economy' amounts to an antithesis of Bell's 'post-industrial service society' (see Webster, 1995, p.45). Meanwhile, contrary to the expectations of the 'post-industrial society' enthusiasts, service employment that *has* been created in the advanced capitalist countries in recent decades is not necessarily of a high-wage, knowledge-intensive, business services or R&D nature (Cohen and Zysman, 1987, p.10; Webster, 1985; Sassen, 1994). Quite the opposite, many new service jobs use unqualified/unskilled labour earning poorer wages than those associated with the skilled labour of the old industrial economy (Sassen, 1994). This signals that the rising living standards posited by Bell (1973) may not be shared across society and that the expected reduction in social inequalities may prove chimerical (see also Castells, 1996, 1997).

Further flaws in the 'post-industrial society' thesis have been highlighted by Webster (1995) who, after a detailed review, has launched an uncompromising attack on Bell's version of such a society. He argues that the rejection of the post-industrial society

> 'must be quite sweeping, dismissing everything from Bell's anti-holistic mantra (societies are *not* radically disjuncted, but intricately connected) to his general account of social change as an evolution through stages towards a "service economy". His explanation of the emergence of the [post-industrial society] is misconceived, his description of an emergent "caring" society unconvincing, and his insistence that it is possible to identify separate employment sectors (which are yet causally connected, with services being dependent on the goods-producing level) is incorrect' (ibid, p.46).

Various attempts to reincarnate the idea of the 'post-industrial society' – for instance, in the form of the 'information society' – have also faced severe criticisms.

Shortcomings of the 'information society' thesis

As pointed out earlier in the Chapter, 'information society' theorists have tried to move beyond the service sector approach typical for writers of the 'post-industrial society' thesis and focused instead on information and technology that supports the creation, processing and distribution of knowledge. This move, however, has proved to be the source of a major problem, most notably in the form of technological determinism (Webster and Robins, 1986; Webster, 1995, 1997; May, 2000). Castells's opus on the 'Information Age' is a case in point. Indeed, despite being 'a marvellous work of synthesis' (Webster, 1997, p.106) it also contains several fundamental problematic points. Importantly, Webster notes that the 'Information Age' was constructed 'without a really clear idea of what the author means by information, so much so that quite varied information activities and processes were being conflated and confused' (ibid, p.120). The second major objection Webster highlights is that Castells 'shares totally the view that it is changes in the technological system that provide the basis of social advance' (ibid, p.109) which makes him 'committed to a technocratic view of development, just as much as is Daniel Bell and, indeed, all other theorists of the "information age"'(ibid, p.109). The central belief of such a 'technocratic view' is that 'certain technological foundation is the prerequisite and determinant of all social and political life' (ibid, p.109) which in turn 'subverts all ambitions to bring about profound social and economic change, since always, but always, there must be acknowledged a decisive, if imprecise, level of technological foundationalism to any dreamed of social system' (ibid, p.109).

Such technological determinism, where social change is presented as technology-driven, is however, shared across the 'information society' camp and beyond. Abandoning it would mean to acknowledge that the analysis of information technology has to start from the analysis of the wider social, economic and political context in which it is born. Instead of accepting a thesis that the 'Information Revolution' is dramatically reshaping economy and society, one can observe that at best we witness an 'informatisation' (Webster, 1995, p.219) of existing social relations. But this process has to be seen on the background of strong historical continuities of a system that is still distinctively capitalist[7] (Webster, 1995; Webster and Robins, 1986).

Consequently, technology has to be seen in the context of vested interests firmly entrenched in capitalist social relations. In turn, rather than considering the categories of capital and state as being dissolved by the 'Information Age' and replaced by a 'networking logic' (as suggested by Castells, 1996) one has to pay attention to the interests of corporations (capital), governments (state) and workers (labour) in developing, using and promoting technology in general, and ICT in particular (Webster and Robins, 1986; Webster, 1995; May, 2000; see also Schiller, 1999; McChesney et al, 1998; in particular Hill, 1998; Meiksins, 1998; McChesney, 1998). Indeed, both states and businesses playing an active role in promoting the 'Information Revolution' (Webster and Robins, 1986) reflect support which is related to powerful political, business, military and ideological interests (Lyon, 1988). Subsequently, it is hard to see technology as 'neutral' and the allegedly emerging 'information age' as being a 'natural' or 'inevitable' process. In addition, the above revelations weaken the prospects of benefits that ICTs are claimed to bring to workers and wider society. Indeed, instead of having liberating effects on society, information technology can also function as a tool of control and oppression (Lyon, 1988) while the expected positive implications for industrial relations may not materialise. Workplace practises may be shaped by technology, but this occurs within the context

[7] The point that even Castells (1996) does not dispute.

of historical conflict and compromise between capital and labour (Tomaney, 1991, 1994). Meanwhile, the ICT-producing sector (producing technology that is supposed to have benign social impact) is, ironically, itself characterised by a sharp division of labour (Henderson, 1989; Massey, 1984, 1995), thus perpetuating rather than mitigating social fragmentation.

Finally, it has to be highlighted that technologies that are allegedly leading the 'information revolution' and supposedly opening the horizons of a 'new age' (be it in the form of 'information age', 'flexible specialisation' or 'Fifth Kondratieff') were born, directly or indirectly, out of the military effort of the Cold War era, mainly through generously funded US defence programmes (Lyon, 1988). This fact further undermines the emergence of the 'information society' as 'natural' and has important bearing on the discussion about the rise of the 'informational capitalism' in the West and the fall of 'industrial statism' in the East (see Chapter 4). Various different versions of the 'information society' have aimed to overcome these shortcomings (including the obvious technological determinism) by embracing wider social contexts. These attempts, however, have their own problems, as the subsequent critique of the 'knowledge economy' and 'learning economy' will demonstrate.

Limits to the 'knowledge economy' and 'learning economy'

A sound critique of the 'knowledge economy' has been offered by Christopher May (2000, 2002). May disputes Leadbeater's 'tone of inevitability' that 'denies human agency to do anything but react to change' (May, 2000, p.147). He also challenges the invocation that the 'knowledge economy' is a 'post-capitalist' one (ibid, p.147) and provides convincing arguments that the 'logic' of capitalism has not been disrupted by the emerging 'new economy'. For May, new modes of economic activity exhibit 'significant continuities' (May, 2002, p.1037) with the previous modes of capitalism, primarily because property rights remain a central element of the society's legal structure (ibid, p.1037). Indeed, May argues, the main problem with Leadbeater's account is its failure to recognise that 'a key element of the knowledge economy has been the largely successful project to render knowledge as property' (May, 2000, p.146), not least through internationally enforced *Intellectual Property Rights* (ibid, p.147-148). *Intellectual Property Rights* (IPRs) allow commercial exploitation of knowledge, while ensuring that in the 'knowledge economy' (contra Leadbeater) knowledge is *not* freely spread between people, firms, regions or nations. May provides the following comparison to support his point:

> 'In a way similar to that which the land-owning aristocracy, during the growth of intensive farming, sought to enclose what was previously common land, intellectual property is predicated on the remaking of knowledge and information as property despite its potential for free availability. The rendering of knowledge as property through patents, copyrights, trademarks and other instruments, transforms knowledge that might be regarded as commonly available to everyone into property owned by the few... To enable a price to be taken by capitalists, knowledge must be rendered formally scarce and this is achieved by the legalised limitations of use owners can mandate by utilising IPRs over knowledge of information they wish to control' (May, 2002, p.1041-42).

For May, this represents a 'continuing commodification' (ibid, p.1042) through which 'capitalism has progressively deepened its penetration into previously non-commodified social relations inside and outside the workplace' (ibid, p.1043). The latter process includes 'continuing moves to bring information and knowledge to the market as commodities' (ibid, p.1043). Following this critique, May moves on to discuss contradictions at the very heart of the 'knowledge economy' by examining the much-vaunted claims (typical for 'knowledge economy' optimists) that 'knowledge workers' represent a new dramatically different and empowered form of work. Offering some vivid examples, May convincingly demonstrates that far from becoming an 'axial principle' in the 'knowledge economy' (as posited by Bell for instance), individual 'knowledge workers' may face 'considerable barriers [in] profiting from the ideas and knowledge they originate' (ibid, p.1047). Consequently, more often than not, inventors, creators or performers 'need to be assigned to a large company, who then control those rights for exploitation' (ibid, p.1045). Alternatively, the may become 'brains for hire' (ibid, p.1045), but in both cases, 'knowledge-worker's output belongs not to them but to their employers' (ibid, p.1046). In fact, IPRs can ensure that 'even ideas you have outside the workplace may be owned by your employer' (ibid, p.1046). Typical knowledge workers thus cannot wrench themselves free of capitalist social relations. Even the small minority of high-profile knowledge workers with potentially generous contracts, 'seldom retain control of the rights to their intellectual output' (ibid, p.1045). This is so, because the 'underlying property relations – those between labour owning and capital owning groups – remain largely unaltered' (ibid, p.1044). In this context, the knowledge-related workplace represents a significant continuity in labour relations (ibid, p.1047-1048). Consequently, the new economy's world of work is 'remarkably familiar'[8] (ibid, p.1048).

These points have been echoed by Ray Hudson (1999) in his critique of the 'learning economy' (LE). Hudson starts his critique by asserting that the emphasis on knowledge, learning and innovation is 'hardly novel' (ibid, p.59) because 'the creation of knowledge has been integral to the competitive dynamic of capitalist economies since they were first constituted as capitalist' (ibid, p.60). Importantly then, current economic transformations should be seen in 'the context of continuities and changes *within* capitalism' (ibid, p.59; emphasis added). Consequently, contradictions of capitalist social relations, the class relations between capital and labour, 'can be refashioned but not abolished' (ibid, p.66). In turn, these contradictions of capitalism can impose formidable limits to 'learning' that LE theorists fail to appreciate. Likewise, the role of power in shaping production and the appropriation of knowledge is overlooked by the 'learning economy' literature. Thus, Hudson has doubts as to what extent the expected benign effects of the LE can be realised as far as 'the economy remains a capitalist one' (ibid, p.66). Instead he argues that some recent changes in production are in fact 'reproducing in enhanced form the asymmetries of power between capital and labour' (ibid, p.66). Hudson (1999) then moves on to demonstrate that the concept of the networked 'learning firm', one of the basic building blocks of the 'learning economy' concept, seems problematic. Indeed, it fails to take into account 'sharp asymmetries of power' (ibid, p.67) in inter-firm networks that are increasingly dominated by 'massive transnational corporations' emerging as 'movers and shakers' of the global economy (ibid, p.67).

[8] Indeed, one could argue that the reality of work in the 'knowledge economy' does not represent a dramatic shift away from the 'real subordination of labour', identified by the Marxian school of thought

Critical points have also been raised by Jessop (2000) who assesses the globalising 'knowledge-driven economy' from *Regulation School* positions. Importantly, he does not see the rise of such an economy as a shift beyond capitalism, but rather as a search for 'spatio-temporal fixes' of capitalist contradictions in the post-Fordist era. Jessop argues that far from overcoming old contradictions of capitalist accumulation, the emergence of the 'knowledge economy' means that 'some contradictions have increased in importance and/or acquired new forms' (ibid, p.68). He then goes on to argue that '[k]nowledge has always been important economically' (ibid, p.65) but that what is novel is 'the increased importance of knowledge as fictitious commodity' (ibid, p.65). Transformation of knowledge into such a commodity lies at the very heart of the 'knowledge economy' and can take a form of intellectual property (e.g. patent, copyright), of wage-labour producing knowledge for the market, or third, of 'the real subsumption of intellectual labour and its products under capitalist control through their commoditisation and integration into a networked, digitised production-consumption process that is controlled by capital' (ibid, p.65). A 'fundamental contradiction' arising from such commodification is between the knowledge as intellectual commons (collectively produced) and knowledge as intellectual property (privately appropriated) (see ibid, p.65).

Further contradiction, according to Jessop, arises in the globalising 'knowledge-driven economy' from the conflict between 'hypermobile financial capital' (operating in an abstract space of flows) and 'industrial capital' (still needing to be valorised in place) (ibid, p.69). There is also a contradiction between 'short-term economic calculation' (especially in financial flows) and the long-term dynamic of 'real competition' rooted in resources that may take years to create, stabilise and reproduce (ibid, p.69). One could add that in consequence, a happy and spontaneous reconciliation between 'financial markets' and 'community' as posited by Leadbeater (2000) may be unrealistic. According to Jessop, a new 'site of problems' also arises from the interaction between 'time-space compression' and 'time-space distantiation'. The latter 'stretches social relations over time and space' the spatial side of which is 'reflected in the growing spatial reach of divisions of labour' (ibid, p.70). We will

as being an important feature of the industrial capitalism (I am thankful to John Tomaney for this insight).

return to this issue later. The important point to reiterate here is that the allegedly emerging 'knowledge economy' does not seem to bring a new kind of more harmonious society as posited by Bell or Leadbeater. Instead, we may be experiencing the continuing salience of the social relations of capitalism and its contradictions. In fact, several observers agree that we may be witnessing the *deepening* of the capitalist logic (Castells, 1996, p.19; Harvey, 1989, p.188; May, 2000, p.147).

Following this critique we can return to the question whether we are really experiencing a transition towards a 'knowledge-driven economy'. On the basis of the arguments presented above, it could be concluded that there is no compelling evidence that (even the most advanced) economies have actually moved beyond the capitalist market economy. Therefore, it remains debatable whether contemporary economies can be meaningfully seen as *knowledge*-driven. Rather it should be admitted that the market economy remains ***profit*-driven** (cf. Sokol and Tomaney, 2001). Within such an economy, the final goal is not knowledge but profit. In fact, the importance of the market imperative for profit is likely to increase with the advances of neo-liberal globalisation (see Harvey, 1989; Castells, 1998, p.338, p.342). This is not to say that knowledge does not play an important role, indeed, knowledge can be a part of a profit-seeking process (and probably always was). But knowledge is neither the only, nor necessarily the most important part of such process. The central argument of the 'knowledge economy' about the key role that knowledge now plays in the economy is assumed but not proven. Indeed, the crucial evidence of the *growing* importance of knowledge (let alone knowledge being the *only* or *the* most important factor of in economic and social development) is still missing[9] and the notion that we are witnessing a transition towards a *'knowledge-driven'* economy crumbles. The following section will try to further support such an argument by pointing to the fundamental flaw in the 'knowledge-driven economy' concept through a critical examination of the relationships between knowledge and wealth.

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[9] It remains debated as to how the role of knowledge within the economy should be measured (cf. OECD, 1996a; inter alia). However, using R&D expenditure as an indicator, OECD's (1996a, p.22) report on the 'knowledge economy' has suggested that 'overall growth in R&D spending is declining. In the OECD countries, growth in national R&D spending has been on a downward trend since the late 1980s, and it fell in absolute terms in the early 1990s'.

2.4 Can an economy be 'knowledge-driven'?

The critique presented in the previous section undermines the notion that the advanced capitalist countries are experiencing a transition to the 'knowledge economy'. However, it is argued here, that the underlying economic logic of the 'knowledge economy' concept remained unchallenged. This logic is built on the assumption that knowledge is a 'dynamo' of economic growth, i.e. that there is a firm *causal relation* between knowledge and wealth in a direction that knowledge creates wealth. It is this logic, however, that needs to be scrutinised by opening a question whether an economy can be *knowledge*-driven at all. This section aims to address this question by examining the knowledge-wealth relationship from a critical perspective.

Such a perspective requires careful attention given the widespread proliferation of an unproblematic and uncritical use of the concept of knowledge as being central to economic development (as the most important if not the only factor) in virtually all versions of the 'knowledge economy' regardless of their theoretical background[10]. Various approaches may have fundamentally different views on what *form* of knowledge is important for economic development; either tacit (Lundvall and Johnson, 1994; Burton-Jones, 1999) or codified/scientific (Bell, 1973; Leadbeater, 2000), embodied in technology (Castells, 1996) or institutions (Hodgson, 1998a, 1999). Various authors may have also different views on *how* and *where* knowledge is produced; in R&D departments and universities (Bell, 1973; Leadbeater, 2000), in and between knowledge firms or knowledge corporations (Burton-Jones, 1999; Bell, 1973), through networks (Castells, 1996) or global trade (Leadbeater, 2000); via market competition (cf. Schumpeter, 1939, 1943) or via 'organised markets' and government intervention (Lundvall and Johnson, 1994). However, regardless of these differences, the underlying argument firmly enshrined in them is unequivocally clear: in the 'knowledge-driven economy', it is knowledge that drives economic development (see Appendix - ***Figure 2.1***).

[10] Lundvall and Johnson (1994, p.23, note 1) have for instance argued that 'knowledge, energy and materials are the basic resources in production rather than labour and capital; knowledge may be regarded as the key resource'.

Even critics that question the alleged benign effects of the 'knowledge' or 'learning economy' seem to admit that it 'would of course be futile to deny the significance of knowledge, innovation and learning to economic performance' (Hudson, 1999, p.59). Far from disputing this latter statement, it is nevertheless suggested here that the knowledge-wealth relationship needs to be examined in a critical light. The purpose is to problematise, at an *abstract level*, the dictum that an economy can be 'knowledge-driven' because it is knowledge that creates wealth, to argue that such a simple and one-directional causal link (knowledge creates wealth) is wanting at least in two aspects. First, it overlooks the possibility of a *reversed* causality (wealth creates knowledge) and, second, it does not take into account the influence of another crucial factor, i.e. power (Sokol and Tomaney, 2001). These two simple but fundamental 'omissions' render the logic of the 'knowledge-driven economy' questionable and have profound ramifications. They thus deserve closer examination.

Taking the knowledge-wealth relationship first, it is striking that various versions of the 'knowledge-driven economy', by and large, fail to properly accommodate the possibility of a reverse causality between knowledge and wealth. Indeed, the cost of 'knowledge creation' or 'learning' is neglected by the literature. In other words, the important fact that wealth (let alone time and effort) is needed to 'produce' knowledge, is usually omitted. Consequently, the reversed causal link (i.e. that wealth creates knowledge) is often conveniently denied. This is disturbing but not surprising. The acknowledgement of the existence of the reversed wealth-knowledge causality, of course, turns the logic of the 'knowledge economy' upside down and opens a fundamental dilemma: are successful economies prosperous because they are knowledge-intensive, or are they knowledge-intensive because they are prosperous? In other words; is the economy driven by knowledge or is knowledge creation driven by the economy?

The answer to this question is far from clear. Jacob Schmookler (1966) for instance studied the relationship between economic development and technological innovation, to conclude that the rates of innovation (considered by many as a vehicle for economic development) may in fact be positively linked to the demand of a given economy, i.e. dependent on the economic growth itself. In a similar way, Patterson (1999) challenges a conventional view regarding the relationship between education and economic development. He argues, building on Ashton and Green (1996), that 'there is no convincing research evidence that higher overall levels of education and training really are the cause of more rapid economic growth' (Patterson, 1999, p.5). Subsequently, the critical question arises 'whether education is a *cause* or an *effect* of national economic success' (ibid, p.5; emphasis added).

One way to resolve the above dilemma would be to argue that instead of a simple unidirectional relationship, knowledge and wealth are engaged in a mutual circular relationship in a sense that knowledge can create wealth, but also wealth is needed to produce knowledge (be it scientific discovery, technological innovation, or educated individual). Moreover, the relationship between knowledge and wealth may be mutually reinforcing and resulting in a 'virtuous circle' in which investment in knowledge may yield economic benefits that can be reinvested back into the knowledge-base generating further wealth. In other words, a possibility of increasing returns to investment in knowledge should be acknowledged (cf. Solow, 1956; 1957, Kaldor, 1970; Markusen, 1985; Romer, 1986, 1990; Krugman, 1991a, 1991b; cf. Sala-I-Martin, 2002). Thus, knowledge should be in fact seen as *an integral part* of wealth (capital) accumulation. This puts the proposition that an economy is, or could be, knowledge-driven in a very different light.

The second problem with the knowledge-wealth formula that features at the heart of the 'knowledge-driven economy' concept is its silence over power relations. This is rather disturbing because as Susan Strange puts it '[i]t is impossible to study political economy...without giving close attention to the role of power in economic life' (Strange, 1994, p.23). The absence of power in the knowledge-wealth equation thus represents the second fundamental 'omission' of the 'knowledge economy' concept. Indeed, by inserting power into the equation, the picture of a simple, one-directional relation between 'knowledge' and 'wealth' disintegrates, a more complex (but also more accurate) matrix emerges. This emerging matrix sees 'knowledge', 'wealth' and 'power' as being mutually linked through a web of complex, multidirectional, direct and indirect relations (see Appendix - ***Figure 2.2***). It is useful to acknowledge that the task of thoroughly defining knowledge, wealth and power and conceptualising their relationship would be welcome here, but is beyond the scope of this thesis[11]. What is important, however, is that the new emerging matrix (abstract and simplistic as it is) allow us to depart from a misleading notion of the economy as being 'knowledge-driven' and open more realistic ways of looking at economic and social processes. Such insights may be necessary when considering inequalities within and between socio-economic systems.

Indeed, one of the central claims that 'knowledge economy' enthusiasts make is that the emerging 'knowledge economy' opens chances to eradicate deep inequalities wrought by the (outgoing) industrial capitalism. Leadbeater (2000) goes as far as to claim that the 'global knowledge economy' can improve changes to resolve global inequalities. However, in the light of the above arguments, such chances look slim. Indeed, at the very abstract level, the interplay between knowledge, wealth and power is *unlikely* to result in a sort of equilibrium distribution within and between socio-economic systems. On the contrary, there are good reasons to expect that this interplay may be patterned by cumulative effects, leading to virtuous/vicious circles from which highly uneven patterns of 'distribution' of knowledge, wealth and power may emerge. On the 'virtuous circle' side, it is not difficult to imagine, for instance, how wealth (economic resources), power (political influence) and knowledge (education, skills, etc.), can reinforce each other to enhance success of individuals or whole social groups. On the adverse side of the process, a 'vicious circle' can develop, where people and social groups can find it difficult to break from poverty, lack of knowledge (education) and the absence of political voice. The likelihood of the virtuous/vicious scenarios resonates with the suggestions by Ferreira (2001) who has argued that initial educational, wealth and political inequalities within society tend to reinforce themselves. Similar conclusions have been drawn by Gunnar Myrdal (1957) a half century ago, advancing the idea of *circular and cumulative causation*[12]. More broadly, such an approach resonates with the disequilibrium economics theories including Keynesianism (cf. Kaldor, 1970).

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[11] See Bourdieu (1977, 1984) and his concept of 'economic capital', 'political capital' and 'cultural capital' as a possible way forward.

[12] Myrdal (1957) originally introduced the idea of *circular and cumulative causation* when studying processes of social exclusion (see ibid, p.13-20). Subsequently he applied the principle of such causation into the space-economic context (see Chapter 3). It is useful to note that Myrdal has argued that the negative effects of the processes of *circular and cumulative causation* can be overcome only when tackled on several or all fronts by intervention from outside.

The possible negative effects of the *circular and cumulative causation* process can be enhanced in the profit-driven economy, in which the differences in power and wealth are further highlighted. Indeed, in the capitalist economy, the ownership of the means of production is in itself a source of considerable power. As seen in the previous section, this logic (typical for industrial capitalism) has not been disrupted in the emerging knowledge-intensive production, courtesy of continuing institution of property rights. Indeed, as May (2002) has demonstrated, even knowledge workers may find that their intellectual output still belongs to the owners of the Intellectual Property Rights. Thus knowledge, far from dramatically transforming the landscapes of capitalism, is itself subjected to the capitalist logic. Thus knowledge, in a variety of its forms, is likely to partake in the process of reproducing existing inequalities. Within such process, contra 'knowledge economy' optimists, knowledge distribution 'remains patterned by wealth and ownership' (May, 2000, p.146). This in turn means that we have to abandon uncritical notion of the 'knowledge-driven economy', and move on towards an alternative conceptualisation of socio-economic systems.

2.5 Towards an alternative framework

The disintegration of the 'knowledge economy' concept opens the way for alternative conceptual frameworks to be put in place. This section will only attempt to sketch-out some *elements* on which an alternative framework could be based. Building on the strengths of institutional/evolutionary and more radical approaches the section will start with a discussion of how an economy could be conceptualised and then move to argue that current socio-economic transformations are occurring within the context of the capitalist profit-driven economy. In doing so, it will highlight the role of, what could be termed 'socio-spatial divisions of labour' and 'socio-spatial value chains/networks' in the workings of current political economy thus opening an alternative way of understanding what some see as the rise of the 'knowledge economy'.

The starting point of an alternative conceptualisation is a suggestion that an 'economy' should be seen as an *institutionalised social process*[13] (Nelson and Winter, 1982; Granovetter, 1985; Samuels, 1988; North, 1991a, 1991b; Witt, 1993; Hodgson, 1988, 1993, 1998a, 1999, 2001; Hodgson et al., 1993). Consequently, institutions rather than individual actors or firms become the primary analytical focus. Indeed, borrowing from institutional/evolutionary economics, it could be argued that '[s]ocio-economic systems are essentially and unavoidably built up of historically layered and densely entangled institutions and routines' (Hodgson, 1999, p.60). It is important to recognise that institutionalist approaches cannot be used unproblematicaly, as they themselves faced significant critique (see Ankarloo, 2002; P. Clarke, 2000; see also Martin, 2000). Hodgson himself has admitted, 'the detailed development and explication of a theory of institutional evolution ... still remains incomplete' (2001, p. 252). Indeed, the crucial shortcoming of institutional/evolutionary economics is that the institutions from which socio-economic systems are built are not clearly defined[14] and that there is a continuing ambiguity about how institutions emerge and evolve.

A possible way forward in conceptualising institutions would be to use an evolutionary metaphor of the 'struggle for survival', while recognising that the rules of *biological* survival cannot be easily transposed on *social* systems (cf. Hodgson, 1993, 2001, p.252). Unfortunately, the social sciences lack a great deal of understanding how such 'survival' works within a social system (but see Elias Canetti, 1962 for an inspirational work). Linking back to the debate in the previous section, however, it is suggested that social struggles for survival can be seen as individual and collective struggles over wealth, power and knowledge. It is these struggles that may be critical for understanding institutions, because, as argued here, it is through such social struggles that institutions of conflict and/or co-operation are born. A tentative definition of institutions offered here is that *institutions are probably best understood as being at the same time objects, subjects and outcomes of social*

[13] Therefore terms such as 'socio-economy' or 'political economy' are probably more appropriate to describe it. It is in this context the term 'political economy' is used through the thesis.
[14] Sometimes, institutions are presented as organisations (such as government body, agency or firm), but more often as a set of formal or informal rules, habits, customs, etc. that shape behaviour of members within a given society or social group. However, for Hodgson, (1988, 1999) 'market' itself and even 'money' can be seen as institutions.

struggles. In the light of this, it is now possible to move on to conceptualisation of the current socio-economic system and its institutional characteristics.

Three critical institutions that emerged from social struggles in the era of industrial capitalism, were capital, labour and state (see Harvey, 1999), and given the strong continuities the 'new era' displays with the past (see section 2.3) it would be too early to dismiss these institutions as obsolete. This is not to argue that capital (productive and financial), labour and state (local, regional, national, supra-national) have not been undergoing significant transformations in the past three decades or so. During these decades, for instance, the rise of global 'finance capital' has been remarkable (Strange, 1986; Harvey, 1989; Michie and Grieve Smith, 1995; Dicken, 1998; Weeks, 1998) 'achieving a degree of autonomy from real production unprecedented in capitalism's history' (Harvey, 1989, p.194) while assuming growing hegemony over 'productive capital' (Weeks, 1998). 'Productive capital', meanwhile, has been undergoing its own dramatic restructuring (Peet, 1987; Ruigrok and van Tulder, 1995) that included a locational 're-shuffle of the world's industrial production' (Harvey, 1989, p.165; see also Henderson, 1989; Dicken, 1998). The nature and composition of the global working class also changed, as have the conditions of consciousness formation and political action (ibid, p.192). 'Dual' labour markets were reshaped according to the imperatives of 'flexible accumulation' (ibid, p.152). Simultaneously, there has been continuing restructuring of the state (Jessop, 2000; inter alia) that included the rolling-back of the Keynesian social welfare state. Alongside these developments, there has been a (re)emergence of global institutions, as 'the IMF and the World Bank were designated [in 1982] as the central authority for exercising the collective power of capitalist nation states over international financial institutions' (Harvey, 1989, p.170).

Importantly, these transformations instituted changes in the nature of the relations and power balance between capital, labour and state. As Castells (1996, p.20) has noted, economic restructuring has proceeded on the basis of the 'political defeat' of organised labour, and 'dismantling of the social contract between capital and labour' (ibid, p.19) in the environment of a 'common economic discipline' adopted by OECD countries (ibid, p.20). The point has been echoed by Harvey when noting the 'declining significance of union power' (Harvey, 1989, p. 152) and the 'erosion of the social compromise between big labour and big government' (ibid, p.168). Meanwhile individual nation states, have found themselves 'at the mercy of financial disciplining' (ibid, p.165) and being 'more strictly circumscribed' (ibid, p.168) in the conditions of 'heightened international competition' (ibid, p.168) and vis-à-vis the empowerment of finance capital (ibid, p.165). The state is now, as Harvey notes, 'in a much more problematic position' (ibid, p.170) while arenas of conflict between the nation state and trans-national capital have opened up. But simultaneously and paradoxically the role of the state as a lender or 'operator of last resort' has become more rather than less crucial (ibid, p.196).

As a result of these transformations, capitalism may have been significantly refashioned, but not abolished. Consequently, institutions of capital, labour and state (in their various forms) represent a salient feature of the socio-economic system. With the advances of a neo-liberal profit-driven economic order that deepens the 'logic' of capitalism (Castells, 1996; Harvey, 1989; May, 2000) it seems that it is global capital (both 'productive' and 'financial') that is gaining momentum and emerges as a dominant force in shaping economic processes. Two concepts are proposed here as potentially offering a useful prism through which to approach these economic processes, namely 'socio-spatial divisions of labour' and 'socio-spatial value chains' (or value networks). 'Socio-spatial divisions of labour' can be seen as part of the stretching social relations of capitalism over space (see Harvey, 1999; Jessop, 2000) and tentatively defined as *the way production is organised between and within capital, labour and the state*[15]. In simple terms, the concept tries to capture the ever-growing complexity of the division of labour within the global socio-economic system. The crucial point of the profit-driven economy, however, is not only who produces and where, but also who and where reaps economic benefits of such production[16]. Thus the notion of 'socio-spatial value chains' (or value networks[17]) is proposed to capture *the ways value is appropriated and distributed between and*

[15] 'Production' is used here in the broadest possible sense to include 'pre-production' and 'post-production' economic activities associated with the production, circulation and consumption of physical things, services and their combinations.
[16] A good example on the huge gulf that can separate 'production' and 'value' is offered by May (2000, p.148) when pointing with irony at the fact that '[in 1999] Michael Jordan earned more from his endorsement of Nike shoes than was paid to Nike's entire developing world workforce. They may have produced the shoes, but Jordan added the value!'.
[17] See Smith et al. (2002) for a discussion on a difference between 'value chain' and 'value network'.

within capital, labour and the state[18]. The appropriation of value within the global political economy has indeed been highly uneven and social and spatial inequalities have been growing apace. These inequalities have been manifested at the global level[19] (see Castells, 1996, 1997; Harvey, 2000, p.41-45; Ellwood, 2001; inter alia), between countries and regions (see Chapter 4 for uneven development in Europe) and within countries and regions (see Chapters 6 and 7 for the cases of Scotland and Slovakia). It is in this context of inequality that the emergence of high-value, knowledge-intensive economic hot-spots (mostly) within the advanced capitalist economies has to be evaluated.

Indeed, as part of the intensified search for profit, knowledge has been increasingly commodified (see section 2.3). The commodification of knowledge in turn has allowed for the emergence of what could be seen as a 'knowledge-intensive sub-economy', but this has to be seen in conjunction with the *growing* socio-spatial division of labour at the global level[20] and within the overall *profit*-driven economy framework. In other words, knowledge production has to be seen in the context of intensified struggles between and within capital, labour and the state over value appropriation. Consequently, instead of a widespread knowledge-sharing process posited by 'knowledge economy' enthusiasts, we may witness a process of knowledge accumulation as part of a wider circular and cumulative causation mechanism, in which knowledge, power and wealth reinforce each. In turn, such a cumulative process may have significant social and spatial effects. This theme will be further developed in Chapter 3 where it will be argued that the economic prosperity of regions depends to a large degree on the way they are inserted into (global) 'socio-spatial divisions of labour' and 'socio-spatial value chains/networks'. Meanwhile, conclusions from this Chapter may be summarised as follows.

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[18] See Harvey (1999, p.5-24) for a discussion on, and definition of, 'value'.

[19] Harvey (2000, p.42-43) cites from a recent UN Development Report that 'between 1960 and 1991 the share of the richest 20% rose from 70% of global income to 85% - while that of the poorest declined from 2.3% to 1.4%'. By 1991, more than 85% of the world's population received only 15% of its income and the net worth of the 358 richest people, the dollar billionaires, is equal to the combined income of the poorest 45% of the world population – 2.3 billion people.

[20] Cf. the concept of the 'newest international division of labour' of Castells (1996, p.106-147).

2.6 Conclusions

This Chapter examined the highly influential concept of the 'knowledge-driven economy'. It has been argued the concept appears in the literature under various names and versions. Four such versions have been reviewed in more detail. The 'post-industrial society' thesis could be seen as an attempt to conceptualise the decline of manufacturing and the perceived growing weight of services in society and economy. It represents an 'original' version of the 'knowledge society' in which knowledge is the 'axial' principle (Bell, 1973). Under the heading of the 'information society', the main attention has been given to Castells' (1996) concept of the 'Information Age' that places emphasis on the perceived importance of information and information technology. Further arguments on the 'knowledge economy', in particular those of Leadbeater (2000), have been presented. Here, the 'knowledge economy' concept is seen to go beyond the preoccupation with 'information' and narrow technological concerns in favour of emphasising the importance of wider social contexts and more broadly defined 'knowledge'. As such, it nevertheless seems to 'recycle' many of the original 'post-industrialist' ideas. Finally, the 'learning economy' concept has been revisited. Associated mainly with the work of Lundvall and Johnson (1994) it represents an attempt to conceptualise the knowledge-intensive economy from the perspective of evolutionary economics. The above concepts could be seen as just the 'tip of the iceberg' of a much larger and diverse body of literature, however, they encapsulate well the main arguments this literature offers in its various streams. Besides, the reviewed concepts have also offered some arguments for the debate on the fall of state-socialism in Central and Eastern Europe. These arguments will be revisited in Chapter 4.

What has become clear from the brief reviews of these concepts is that, despite important differences between them, they also display considerable overlaps. In particular they all seem to share the powerful view that the advanced capitalist economies are undergoing a dramatic transformation towards a new era organised around knowledge, information, innovation and technology, supported by particular institutional arrangements. For many observers this transformation is inevitable, but nonetheless desirable, because it brings the hope that the old socio-spatial divisions and contradictions of industrial capitalism will give way to a more harmonious development as the emerging new 'knowledge age' sets in. Such outcomes would indeed be seen as desirable, but the Chapter suggests that they may prove to be largely illusionary, while the nature of the allegedly emerging 'knowledge economy' is often misunderstood. Indeed, the concept of the 'knowledge economy' itself suffers from serious theoretical shortcomings.

A critique of the 'knowledge economy' was started by addressing two fundamental questions. First, 'are we really experiencing a transition to a knowledge-driven economy', and second, 'can an economy be *knowledge*-driven at all'? With regard to the latter, the Chapter supports the view that there is no convincing evidence that (even the most advanced) economies have actually moved beyond the capitalist market economy. Therefore, it remains debatable whether contemporary economies can be seen as *knowledge*-driven. Rather it should be admitted that the market economy is, and always was, *profit*-driven. Within such an economy, the final goal is not knowledge but profit. In fact, the importance of the market imperative for profit is likely to increase with the advances of neo-liberal globalisation. This is not to say that knowledge does not play an important role in the economy. Indeed, knowledge can be (and probably always was) a part of a profit-seeking process. But it is neither the only factor nor necessarily the most important part of the process. Therefore, the notion that we are witnessing a transition towards a 'knowledge economy' should be questioned.

Subsequently, the very assumption that knowledge creates wealth (central to the 'knowledge-driven economy' thesis) has been subjected to a critical analysis. At best it is an oversimplification that does not take into account the influence of other factors (power). Moreover, it overlooks the possibility of a reversed causality (i.e. that wealth creates knowledge). Indeed, the cost of 'learning' or 'knowledge creation' is virtually ignored by the literature. Acknowledging the existence of the reversed causality, of course, means turning the logic of the 'knowledge economy' upside down. As the picture of a simple, one-directional relation between 'knowledge' and 'wealth' disintegrates, a more complex (but also more accurate) matrix emerges. This sees 'knowledge', 'wealth' and 'power' as being mutually linked through a web of complex, multidirectional, direct and indirect relations. The above fundamental 'omissions' render the logic of the '*knowledge*-driven economy' doubtful and open the way for an alternative conceptualisation of the current political economy.

Building partly on 'radical' and 'institutional' approaches, this alternative starts by acknowledging that the economy should be conceptualised as an 'institutionalised social process'. As such, the economy (or rather 'socio-economy' or 'political economy') is shaped by institutions, which can be simultaneously seen as the objects, subjects and outcomes of social struggles over knowledge, wealth and power. The Chapter then went on to support the view that there are important continuities with the past in these struggles and that current socio-economic transformations in the most advanced market economies are unfolding *within* the framework of the capitalist political economy. Consequently, the institutions of labour, state (local, regional, national, supranational) and capital (productive and financial), seem to have continuing salience in shaping socio-economic transformations where contradictions and conflict remain pertinent features. However, in what appears to be an increasingly neo-liberal *profit*-driven economy, it is global capital that is gaining momentum, supported by institutions of global economic governance (emerging as a category of institution of its own right). Indeed, global capital seems to play a pivotal role in shaping the emerging global 'socio-spatial divisions of labour' accompanied by global 'socio-spatial value chains' – two concepts that seem to be better placed to capture the transformations of the global political economy than the concept of a 'knowledge economy'.

Within such a political economy, the role of *knowledge* is indeed changing in that it is increasingly commodified. Thus, rather than dramatically transforming the economic and social landscapes of capitalism, knowledge itself seems to be increasingly subordinated to the 'logic' of the capitalist economy. The commodification of knowledge in turn allows for the emergence of what could be seen as a 'knowledge-intensive sub-economy', but this has to be seen in conjunction with the growing socio-spatial division of labour within the overall *profit*-driven economy framework. Therefore, instead of a widespread knowledge-sharing process, we may witness a process of knowledge accumulation as part of a wider circular and cumulative causation mechanism, in which knowledge, power and wealth reinforce each other with significant social and spatial effects. This in turn casts shadows of doubt over the expected desirable effects that the alleged emergence of the 'knowledge era' is supposed to bring about. These doubts, together with the question marks over the logic and the very existence of the 'knowledge economy' carry some crucial inferences for concepts in economic geography that take the emergence of the 'knowledge economy' for granted and uncritically embrace the idea that knowledge and learning are the most important factors of economic development. These economic geography concepts will be now critically examined in the following Chapter 3.

Chapter 3:

The 'learning region' as the regional dimension of the 'knowledge economy'

3.1 Introduction

While Chapter 2 provided a discussion on the 'knowledge economy' itself, the present Chapter aims to explore specifically the *regional* dimensions of the 'knowledge economy'. In doing so, the Chapter will engage critically with recent concepts within and outside economic geography that borrow their key postulates from the 'knowledge economy' discourse and consider *knowledge* and *learning* the key explanatory factors of regional development (see Malecki, 2000, MacKinnon et al., 2002; for recent reviews). These concepts see regions as basic organisational units of today's 'knowledge-based capitalism' (Ohmae, 1993; Florida, 1995a), that function as 'repositories and collectors' of knowledge, supported by regionally-based 'entrepreneurial cultures', 'untraded interdependencies' and 'institutional thickness' (Amin and Thrift, 1994a; Saxenian, 1994; Storper, 1995a, 1997a, 1999; inter alia). Such regions, we are told, are best described as 'learning regions' (Florida, 1995a, 1995b; Asheim, 1996; Morgan, 1997; Boekema et al. 2000a). Their learning capacity and ability to disseminate knowledge and innovation ensures their economic success. In this way, the 'learning region' paradigm 'fits into the wider context of the knowledge-based economy' (Rutten et al., 2000, p.249) and opens the way for conceptualising the 'knowledge economy' and 'learning economy' as a collection of 'learning regions'. To push such conceptualisation further, 'learning regions' can be seen as *central* to ongoing socio-economic changes and considered as motors of the 'global knowledge economy' (cf. Florida, 1995a). Consequently, to cite from Rutten, Bakkers and Boekema again, 'understanding the dynamics that shape our global [knowledge] economy must start with an analysis of the dynamics of our regional world' (Rutten et al., 2000, p.257).

This thesis rejects the latter proposition and instead supports the view that the understanding of contemporary regional development must start with an understanding of the wider socio-economic context. In this respect, question marks over the logic and the very existence of the 'knowledge economy' that have arisen from the discussion in Chapter 2 have profound implications for the above economic geography concepts also. In fact, on the basis of the critique of the 'knowledge economy' undertaken in the previous Chapter, it would be easy to dismiss the 'learning region' concept as inadequate and misconceived. However, given the centrality that many scholars ascribe to regions in current socio-economic transformations and the alleged rise of the 'knowledge economy', and given that their propositions dominate theoretical discussions within and outside economic geography, and taking into account the enormous influence that these voices have gained in policy-making process in recent years, it is appropriate to examine the 'learning region' concept thoroughly. This Chapter will attempt to do so in the following steps.

Initially, section 3.2 will try to answer the question of what a 'learning region' actually is and how it is conceptualised in the literature. In doing so, the section will first place the 'learning region' in the context of a longer-term search on the part of economic geography for the regional dimensions of the 'post-industrial society', 'information society' or 'knowledge economy'. It will then move on to review the 'learning region' paradigm itself and its various versions. The section will subsequently argue that alongside the influential theoretical discourses which assign the region the prominent role as a unit of analysis, regions have recently also been celebrated as focal points of a policy intervention. Indeed, the 'learning region' concept has become debated as the best stratagem for less favoured regions (LFRs) to reach 'higher roads' of development (Cooke, 1995a, Morgan, 1997; inter alia). This will be highlighted in section 3.3 while presenting influential views within economic geography that see the 'learning region' as a vehicle for regional renewal of LFRs built around particular regional institutional structures. These institutional structures include regional development agencies (RDAs) that, in the absence of 'institutional thickness', are supposed to act as *animateurs* for their respective regional economies by promoting localised learning and ultimately fostering prosperity. Such propositions are particularly attractive for former industrial regions on the European economic periphery that are keen to 'learn' new 'post-industrial' or 'knowledge-intensive' development paths.

The basis on which the 'learning region' concept has been constructed however and the extent to which it is relevant for LFRs has been subject to important critique. This critique will be presented in section 3.4, pointing to the limits of the 'learning region' concept including the vagueness of definition of its basic building blocks, its 'fuzzy' conceptualisation, 'thin empirics' and problematic applicability for LFRs. It will be argued, however, that the central assumption on which the 'learning region' is built (i.e. that regional learning will bring about regional prosperity) remains unchallenged by the existing critique. This theoretical lacuna will thus be addressed in section 3.5 . The section will argue that by assuming an unproblematic unidirectional causation between 'knowledge' and 'wealth', the 'learning region' concept basically replicates the central flaw of the 'knowledge economy' concept (see Chapter 2). Translated into the spatial context, it discounts the effects of possible circular and cumulative causation in which knowledge, wealth and power may reinforce each other in 'virtuous circles'. This fundamental 'omission' has crucial implications for understanding less favoured regions and opens the way for an alternative conceptualisation of the regional problem that will be discussed in section 3.6 . Building on the theoretical foundations developed in Chapter 2, section 3.6 will put forward elements for such an alternative framework. It will be suggested that the concepts of 'socio-spatial divisions of labour' and 'socio-spatial value chains' (or 'value networks') are probably better placed to grasp socio-economic processes in the contemporary political economy and its implications for regional economic development. Finally, section 3.7 will summarise the findings and point to the implications these may have for the remainder of the thesis.

3.2 What is the learning region?

The primary goal of this section is to establish what the 'learning region' actually is. This is not an easy task given that '[t]here is no simple definition of the learning region' (Boekema et al., 2000b, p.3), as it is 'too complex an issue' (ibid, p.3) encompassing a 'wealth and diversity of insights' (ibid, p.4). However, despite having foundations 'in a multiplicity of theories' (ibid, p.4), it has been made clear by Boekema, Morgan, Bakkers and Rutten that one of the leading rationales behind the 'learning region' paradigm

> '...is rooted in the conviction that the nature of economy has shifted from a labour and capital-based economy to a knowledge-based one, where knowledge is the most important resource and learning the most important process' (ibid, p.4).

The above 'conviction' places the 'learning region' firmly in the context of the 'knowledge economy' or 'learning economy' and a longer-term search for the regional dimension of the 'great transformation' (cf. Chapter 2). Indeed, the 'learning region' is not the only paradigm trying to grapple with the spatial implications of wider socio-economic changes, rather its emergence should be seen as part of an on-going process as the theories, concepts and visions reviewed in Chapter 2 have all become reflected in economic geography debates. These debates have given birth to a plethora of approaches that would deserve thorough examination. It is, however, practically impossible to examine the wealth of literature composed of a rich mosaic of overlapping, competing or even contradictory accounts in the given limited space. What follows, therefore, does not aspire to offer a comprehensive review of all concepts related to the regional dimensions of the 'great transformation'. Rather it aims to provide a simple overview of the main lines of inquiry in the field and to establish a context for subsequent more detailed elaboration on the 'learning region' theme. Reflecting the broad structure used in Chapter 2, these lines of inquiry will be presented in three (in many ways overlapping and complimentary) groups as follows. The first group comprises economic geography concepts that have engaged with the 'post-industrial society' thesis and its spatial implications. The second group is formed by approaches associated with the notion of the 'information society' broadly defined. Finally, the third group includes approaches anchored in debates on the 'knowledge/learning economy' (and from which the 'learning region' paradigm was born). These will be presented before turning to a more detailed examination of the 'learning region' paradigm itself.

Regional dimensions of the 'post-industrial society'

The first group is composed of economic geography approaches that have engaged with the 'post-industrial society' thesis and its spatial manifestations. Within it, at least three overlapping research strands are discernible. First, there are approaches that examine particular geographies arising from the alleged decline of the importance of physical goods and the rising importance of information flows in the economy and society (Hepworth, 1989; Castells, 1989; Lash and Urry, 1994). These overlap, to a large degree, with those approaches reflecting the 'information society' theme (see below). Second, there is a considerable body of literature that critically examines the geography of de-industrialisation (Bluestone and Harrison, 1982; Martin and Rowthorn, 1986; Allen and Massey, 1988; Massey and Meegan, 1982; *inter alia*) and the uneven spatial implications of the growth of services in the 'post-industrial economy' (Allen, 1988; Marshall, 1992). The third strand focuses on a particular segment of the service sector regarded by Bell (1973) as the motors of 'post-industrial' or 'information economy' – universities and R&D establishments (Goddard and Chatterton, 1999; Chatterton and Goddard, 2000; Malecki, 1985; Howells, 1992; Keeble, 1992; inter alia; see also Henry et al., 1995; Andersen et al., 2000; see also below).

In geographical terms, the analytical effort has tended to concentrate on cities that have been considered as being at the forefront of the 'post-industrial revolution'. Cities thus have been conceptualised as 'information cities' (Castells, 1989, 1996; Hepworth, 1989) functioning as the 'backbones' of the information economy (Hepworth, 1989, p.208) or the hubs of information networks (Goddard, 1992) accommodating growing flows of information. Alternatively, they are seen as service-sector dominated 'post-industrial cities' (Savitch, 1988), 'global cities' (Sassen, 1994, 2001) or more recently 'innovative cities' (Simmie, 2001). Within such cities or city-regions, special attention has been paid to innovation supporting 'technopoles' (Malecki, 1991, 1997; Castells and Hall, 1994; Benko, 1991; inter alia). Based around the concept of localised synergies between innovative firms, research institutes and universities, 'technopoles' are considered 'mines and foundries of the [post-industrial] informational economy' (Castells and Hall, 1994). Meanwhile, some commentators have highlighted one of the technopole's components – the university - as being central to regional development in the 'knowledge economy' (Goddard, 1999; Goddard and Chatterton, 1999; Chatterton and Goddard 2000), while others have focused on the university-business nexus (Thrift, 1998), or emphasised the importance of university-business-government 'triad' (Etzkowitz, 2001a, 2001b). Meanwhile, some geographers concerned with the 'anatomy of industrial capitalism' have 'explicitly reject[ed] the widespread idea that the contemporary world has now entered into a "post-industrial" phase' (Scott and Storper, 1986, p.vii) to argue that 'apparent manifestations of "post-industrialism" ... are in reality no more than imbricated moments *within* the complex structure of modern industrial capitalism' (ibid, p.vii).

Regional dimensions of the 'information society'

The economic geography approaches engaging with the 'post-industrial society' thesis cannot be easily separated from those that take a broadly defined 'information society' or 'information economy' as the main point of reference. After all, it could be argued that 'the information economy ... is the economy of ... "post-industrial society"' (Hepworth, 1989, p.7). Within this uneasily defined and rather diverse 'information society' group, those approaches that take *technology* as their starting point have been prevalent. At least four distinctive lines of inquiry are discernible, each approaching technology from a different angle. The first strand discusses regional development in the light of overall 'technical change' (Malecki, 1997; but see also Gillespie, 1983; Thwaites and Oakey, 1985a). The second strand focuses on arguably the most important part of this 'technical change', namely on the crucial role of information and communication technology (ICT) and its implications for the economic prospects of localities, cities and regions (Goddard et al., 1985; Gillespie and Williams, 1988;. Hepworth, 1989; Gillespie, 1991; Goddard, 1992; Graham and Marvin, 1996, 2001; Wilson and Corey, 2000; Richardson and Gillespie, 2000; Cornford et al., 2000; Gillespie et al., 2001; *inter alia*). This literature has offered a critical evaluation of claims that ICT will inevitably lead to the 'end of geography' (O'Brien, 1992) and automatically reduce the spatial and economic peripherality of regions and communities (see also discussion below) and has placed ICT applications in the wider context of capitalist development (see Gillespie, 1991; inter alia). The third strand of literature has concentrated on places where 'high-technology' (including ICT) is designed and produced. Consequently, the emphasis has been on 'science parks' (see Massey et al., 1992; Henry et al., 1995), 'technopoles' (see above), 'sunbelt regions' and 'silicon landscapes' (Hall and Markusen, 1985), geographies of innovation (Hall and Preston, 1988), geographies of the 'Fifth Kondratieff' (Hall, 1985), 'new industrial spaces' (Scott, 1988), clusters of innovative firms, high-technology districts and the like (Keeble, 1989, 1992; Keeble et al., 1991; Henry and Pinch, 2000; Simmie, 2002a; inter alia).

In geographical terms, particular attention has been given to places like Silicon Valley in the USA, Cambridgeshire and the M4 corridor in the UK or Grenoble in France (see Hall and Markusen, 1985; Scott, 1988; Benko, 1991; Castells and Hall, 1994; Saxenian, 1994; inter alia). These spaces have been often perceived as sites of strategic economic development importance and 'hotspots' of economic growth in the 'information society'. From a critical standpoint, however, some of the above accounts of the third strand 'fail to come to grips with the key dynamics in contemporary economic restructuring' (Goddard, 1989, p.xvi). It is 'as if the fundamental economic development issue in the 19th century had related to the location of steam engine production rather than the spread of steam power into a wide range of products and production processes ... and the rapid improvements in communications that steam power made possible' (ibid, p.xvi).

Finally, the fourth literature strand takes a broader socio-economic view and discusses the spatial implications of what could be seen as an emergent 'new economic paradigm' underpinned by the technological change. Here, a variety of concepts have been proposed, ranging from the aforementioned 'new industrial spaces' (Scott, 1988) seen as spatial manifestations of Post-Fordist 'flexible accumulation', through 'flexible specialisation districts' (Piore and Sabel, 1984) arising from the 'second industrial divide', to particular geographies of 'disorganised capitalism' (Lash and Urry, 1994) or the 'network society' (Castells, 1996, 1997, 1998) based on the 'informational mode' of development. The concepts of the 'new industrial spaces' and 'flexible specialisation districts' in particular have became extremely influential in economic geography and have been consequently reflected in the growing body of literature associated with the regional dimensions of the 'knowledge-driven' or 'learning economy'. This literature constitutes a third group of concepts that will be examined in turn.

Regional dimensions of the 'knowledge/learning economy'

Most recently, the theoretical focus for economic geographers has shifted away from preoccupation with 'high-technology' to innovation broadly defined, and from implications of *technological* change towards much wider *social* contexts and processes. This has reflected a broader shift in debate from the 'information society' to the 'knowledge-based' or 'learning economy' (cf. Chapter 2) and opened new directions in economic geography research. Indeed, even Storper who has previously explicitly rejected the idea of the 'post-industrial economy' (see above) has fully embraced the concept of the 'learning economy' (see Storper, 1995a, 1995b, 1997a, 1997b, 1999) and in fact himself became one of the most prominent writers of the emerging 'new' economic geography wave. Emerging new approaches, however, have had to cope with two fundamental questions. The first one relates to the spectacular resilience or even 'resurgence' of economic agglomeration as a form of economic organisation. Indeed, as Storper observes, 'agglomerations seem to have "reappeared" on the landscape of advanced capitalism in association with the new learning economy' (Storper, 1995b, p.403). The second issue is how to account for the perceived economic success of these 'resurgent' agglomerations or clusters. While addressing these two (as it turns out interrelated) issues, a growing consensus has arisen among economic geographers that 'distance still matters' (Storper and Scott, 1995, p.506). Why and how geographical 'distance matters' is, however, a matter of debate. There seem to be two main sets of arguments – the first one is predominantly based on the economic viewpoint, while the other one places emphasis on explanatory factors that are socio-cultural in nature. Both will be examined in turn.

Economic approaches to agglomeration and clustering

A major contribution to the first set of arguments has been provided by what Ron Martin (1999a) calls 'new geographical economics', signalling the rediscovery of geography by economists. Indeed, 'geographical economists' and 'new growth theorists' such as Paul Krugman (1991a, 1991b) have championed approaches that are firmly rooted in mainstream economics, yet thoroughly incorporate geographical space into their mathematical apparatus. Their findings confirm that there is a continuing advantage derived from firms' spatial clustering by reaping 'agglomeration economies' or 'local external economies of scale'. These advantages often outweigh potential 'agglomeration *dis*economies' (see Fujita et al., 2001). Albeit extending frontiers of economics in relation to space, the 'new geographical economics' probably represents too narrow a view of socio-economic reality (cf. Martin, 1999a; Martin and Sunley, 2001a).

Another influential, and perhaps more open contribution has come from the management guru Michael Porter (1990, 1998). Porter maintains that the economic success of nations is derived from their '*competitive* advantage' based on high productivity (as opposed to *comparative* advantage based on factor costs). Productivity, Porter claims, is best achieved and maintained through specialised 'clusters' of *interrelated* industries and suppliers. This is because competitive advantage 'emerges from close working relationship between world-class suppliers and industry' (Porter, 1998, p.103) through which 'the pace of innovation accelerates within the entire national industry' (ibid, p.103). Interrelated industries and suppliers in turn form a part of a 'diamond' structure, alongside other 'competitive advantage' determinants such as 'factor conditions' (human resources, knowledge resources, capital resources, physical resources and infrastructure), 'demand conditions' (size and structure of domestic demand) and 'firm strategy, structure and rivalry' (including corporate strategies and domestic competition; Porter, 1998, chap. 3). As Porter suggests, '[a]dvantages throughout the "diamond" are necessary for achieving and sustaining competitive success in the knowledge-intensive industries that form the backbone of advanced economies' (Porter, 1998, p.73). Importantly, the government is not directly involved in the 'diamond' structure, and is assigned only a limited role of maintaining a suitable 'environment' for national competitiveness (Porter, 1990, 1998).

Although developed clearly as a concept for *national* competitiveness (arguably with strong allusions on the spatial dimension of clusters[1]), Porter's approach has been quickly embraced by economic geographers (see Cooke, 1995c; Cooke, 1998; *inter alia*), translated onto the *regional* scale and used in the context of *regional* competitiveness. Indeed, within economic geography debates, 'clusters' of interrelated industries have been 'spatialised' and routinely conceptualised as *regional* clusters. Such moves, albeit problematic (see Martin and Sunley, 2001b), seem logical in the light of propositions that economic geographers themselves have put forward. Indeed, the notion of 'regional clusters' is not foreign to the concept of the 'new industrial spaces' developed by Allen Scott (1988). Following a sophisticated analysis, Scott (1988) concludes that 'new industrial spaces' emerge as 'tight functional clusters' (ibid, p.32) where agglomeration economies or 'external economies of scale' (ibid, p.29) are achieved through 'vertical disintegration' of the production process. This in turn increases 'flexibility' while reducing 'transaction costs' within the emerging network of firms tied together by 'traded dependencies', shared infrastructure and local labour market. For Scott, such clusters could be seen as representing a (spatialised) economic organisation form 'between markets and hierarchies' (cf. Williamson, 1975) where firms both compete *and* co-operate. Cases cited as examples of these 'new industrial spaces' famously include the successful regional economies of Silicon Valley and 'Third Italy' (see Scott, 1988).

Despite significant differences in their approach, it could be said that Krugman (1991b), Porter (1990, 1998) and Scott (1988) have based their explanation of agglomeration and clusters (and their success) on the *economic* relations between firms or 'hard externalities' (input-output factors). Thus while acknowledging the existence of other externalities, their emphasis has been on 'traded interdependencies'. More recent approaches, however, have moved away from these economic explanations to give way to more socio-cultural accounts.

Socio-cultural accounts of clustering

The hallmark of these new approaches is the concept of '*untraded* interdependencies' (Storper, 1995a, 1995b, 1997a, 1997b, 1999) that refers to 'soft' externalities – i.e. a complex network of interdependencies which go well beyond market transactions and formal relationships within a regional economy. The emphasis on '*untraded* interdependencies' between firms and institutions signals a decisive move away from 'economic' explanations of agglomeration in favour of more 'social' and 'cultural' factors. Consequently, clusters are redefined along socio-cultural lines rather than purely economic ones. Meanwhile, the very distinction between the 'economic' and 'non-economic' becomes blurred and re-conceptualised (see Amin and Thrift, 1995, p.63; 1999, p.311). Indeed, building on the work of Granovetter (1985) and Grabher (1993a) economic action is considered as being 'embedded' in social relations and *regional* economic processes as 'embedded' in *regional* social relations.

Thus, drawing mainly on the insights of institutional and evolutionary heterodox economics[2] (Nelson and Winter, 1982; Hodgson, 1988, 1993, 1999; *inter alia*) and reflecting a wider 'cultural turn' in the social sciences (see Lee and Wills, 1997), economic geographers have became pre-occupied with place-specific rules of action, customs, habits, conventions, reflexivity, culture, social capital, social networks and institutions of various forms (Amin, 1999; Amin and Thrift, 1994a, 1994b, 1995, 1999; Camagni, 1991a, 1991b; Cooke, 1998; Henry and Pinch, 2000; Storper, 1995a, 1997a, 1999; Storper and Scott, 1995; *inter alia*) marking the emergence of the 'institutional turn' in regional development studies[3] (Amin, 1999). Consequently, economically successful regions such as Silicon Valley or the 'Third Italy' are

[1] Porter maintains that the 'process of clustering...works best when the industries involved are geographically concentrated' (1998, p.157).
[2] See Amin and Thrift (1995, 1999) for a good overview of these influences.
[3] Institutions assume a central role in this new wave of economic geography thinking despite problems of definition (see below).

conceptualised as regions with dense collaborative networks, a good 'entrepreneurial culture' (Saxenian, 1994), rich 'relational assets' (Storper, 1997b), high levels of 'social capital' and overall 'institutional thickness' (Amin and Thrift, 1994b) that is conducive to the co-ordination of economic action and continuous innovation. Such regions have also been described in terms of 'innovative milieus' (Aydalot and Keeble, 1988; Camagni, 1991a; Maillat and Perrin, 1992), 'innovation networks' (Camagni, 1991b), 'regional networks' (Cooke, 1996) or 'regional innovation systems' (Braczyk et al., 1998). The above 'new' concepts, however, resemble the 'old' industrial districts as portrayed by Marshall a century ago, or more recent 'flexible specialisation districts' proposed by Piore and Sabel (1984). Both depict localised clusters of specialised industries (small firms) tied together, *inter alia*, by interpersonal linkages, shared rules of conducts and an overall 'industrial atmosphere'. Unsurprisingly then, emerging 'new industrial districts' have been dubbed 'neo-Marshallian nodes' of the global economy (Amin and Thrift, 1992). As Storper has observed, 'we came "full circle" to rejoin the initial authors of the flexible specialisation thesis (and the Marshallian theme of "atmosphere"), albeit with a somewhat different point of entry and without quite the same perspective on the role of institutions in development as a whole' (Storper, 1999, p.30). It is from these theoretical vibrations that the 'intelligent region' (Cooke and Morgan, 1994) or 'learning region' paradigm has eventually been born.

Towards the 'learning region'

The 'learning region' can in fact be seen as a model of this 'institutional' (Amin, 1999) or 'new regionalist' turn (Lovering, 1999). A striking characteristic of the 'learning region' is that its conceptualisation seems to invariably revolve around the notions of region, learning, knowledge and institutions. Indeed, the region is usually considered as the most important unit of the 'learning/knowledge economy', its competitive ability is believed to be based on its learning and knowledge creation capacity, while this capacity is in turn supported by appropriate regional institutions. Several different accounts of the 'learning region' have mushroomed (Florida, 1995a; Asheim, 1996; Morgan, 1997; *inter alia*) and these will be examined in turn.

Probably the most suggestive account of the 'learning region' has come from Richard Florida (1995a). Florida asserts that instead of a shift towards a post-industrial service economy, we witness a 'more fundamental change in the way goods are produced and the economy itself is organised', i.e. an epochal transformation 'from mass production to a knowledge-based economy' (Florida, 1995a, p.534). Within such a knowledge-based economy, '[k]nowledge and human intelligence will replace physical labour as the main source of value' (ibid, p.535). Regions, in his view, represent 'a key element of the new age of global, knowledge-based capitalism' (ibid, p.528). In part, this is because, as Ohmae has observed:

> '[t]he nation state has become an unnatural, even dysfunctional unit for organizing human activity and managing economic endeavor in a borderless world. It represents no genuine, shared community of economic interests; it defines no meaningful flows of economic activity. On the global economic map the lines that now matter are those defining what may be called region states' (Ohmae, 1993; cited in Florida, 1995a, p.531).

These region-states that 'tend to have between five million and 20 million people' (Ohmae, 1993; cited in Florida, 1995a, p.531) are thus for Florida 'key economic units in the global economy' (Florida, 1995a, p.531). Region-states, in turn, are 'becoming focal points for knowledge creation and learning in the new age of global, knowledge-intensive capitalism, as they in effect become *learning regions*' (ibid, p.257). These *learning regions*

> '...function as collectors and repositories of knowledge and ideas, and provide the underlying environment and infrastructure which facilitates the flow of knowledge, ideas and learning' (ibid, p.257).

Part of this environment or infrastructure of a 'learning region' is, what Florida calls, 'manufacturing infrastructure' (including networks of firms), 'human infrastructure' (knowledge workers), good physical and communication infrastructure, a capital allocation system and financial market and effective 'industrial governance'. The latter feature includes 'formal rules, regulations and standards' as well as 'informal patterns of behaviour between and among firms, and between firms and government organizations' that are 'attuned to the need of knowledge-intensive organizations' (ibid, p.534).

Indeed, 'knowledge-intensive organisations' are at the very heart of the 'learning region' as portrayed by Florida. A model of such a 'knowledge-intensive organisation' is a transnational corporation implanted into the heart of the 'learning region' through foreign direct investment (FDI). It is integrated with the global marketplace and able to 'harness knowledge and intelligence at all points of the organization from the R&D laboratory to the factory floor' (ibid, p.534). In the knowledge-intensive factory, teams of R&D scientists, engineers and factory workers are becoming 'collective agents of innovation', while the lines between the factory and the laboratory 'blur' (ibid, p.259). Indeed,

> '[l]ike a laboratory, the knowledge-intensive factory is an increasingly clean, technologically advanced and information-rich environment [where] workers perform their tasks in clean room environments, alongside robots and machines which conduct the physical aspects of the work' (ibid, p.529).

Florida suggests that this 'new age of capitalism' requires a 'new kind of region', that would be modelled around the principles of the knowledge-intensive firms. These are likely 'to blend the ability of "Silicon Valley" style high-technology companies to spur individual genius and creativity, with strategies and techniques for continuous improvement and the collective mobilization of knowledge' (ibid, p.534). The 'learning region' must therefore 'develop governance structures which reflect and mimic those of knowledge-firms' (ibid, p.534) and embrace principles of knowledge creation and continuous learning (ibid, p.532). As a result, 'learning regions' will become 'focal points for economic, technological, political and social organisation' (ibid, p.535), concludes Florida.

A slightly different, and less dramatic, version of the 'learning region' has been offered by Bjørn Asheim (1996). It differs from the Florida's account in several important details, while sharing many underlying concerns. Indeed, both authors consider innovation as being central to economic success and both share the belief that the contemporary economy is undergoing fundamental transformation. However, instead of the idea of 'knowledge-intensive capitalism' evoked by Florida, Asheim (1996) takes as his starting point a 'post-Fordist "learning economy"' (ibid, p.379). Consequently, instead of 'knowledge-intensive organisations', Asheim employs a term 'learning organisations'. Furthermore, unlike Florida's concept of knowledge as being 'imported' by big transnational companies via FDI, Asheim focuses on the *endogenous* forms of learning within the network of local small and medium-sized enterprises (SMEs). In addition, the whole emphasis shifts from 'knowledge-intensive production' towards concerns over 'organisational innovations' and the overall 'adaptation capacity' of the local or regional economy.

The central concern of Asheim is 'the future of industrial districts in the perspective of the "learning economy"'(ibid, p.394). Industrial districts are seen as a 'socially desirable paradigm' (ibid, p.394) and defined as localised clusters of small and medium-sized enterprises (SMEs) akin to the clusters described by Marshall and Piore and Sabel (1984). But can 'industrial districts', such as those found in the 'Third Italy', survive the imperatives of the 'learning economy'? Following a lengthy theoretical discussion drawing a wide variety of insights from, among others, Camagni (1991a), Granovetter (1985), Grabher (1993a), through Porter (1990), Storper (1995a, 1995b) to Amin and Thrift (1994a) and Cooke and Morgan (1994), Asheim arrives at a conclusion that such survival is possible provided that 'industrial districts' will manage their transformation into 'learning regions' (Asheim, 1996, p.395). To do this, the 'industrial districts' in question have to acquire a 'collective innovative capacity' that has to be 'systematically developed and supported both at intra-firm, the inter-firm and the district or regional level' (ibid, p.395). The vision of the 'collective innovation capacity' is akin to the notion of 'knowledge-intensive firms', 'networks of firms' and 'supporting environment' evoked by Florida. For Asheim,

> '...learning organisations must be based on strong involvement at the intra-firm level, on horizontal cooperation at the inter-firm level, and on the embeddedness of regional systems of innovation at the regional level. This

> could, together with other necessary organizational and social innovations in the regional institutional set-up, contribute to turning industrial districts into "learning regions"' (Asheim, 1996, p.395).

Such 'learning regions', asserts Asheim, 'would be in a much better position than "traditional" industrial districts to avoid a "lock-in" of development caused by localized path-dependency' (ibid, p.395) while 'transcending the contradictions between functional and territorial integration through a new, regionalized integration of the traditional, "contextual" knowledge of industrial districts and the "codified" knowledge of the global economy within the framework of territorially embedded regional systems of innovation' (ibid, p.395).

A less abstract view of 'local capabilities' and 'learning regions' has been elaborated by Peter Maskell and his colleagues (Maskell *et al.,* 1998). Discussing the competitiveness of small (Scandinavian) *countries*, they actually do not dwell on the term 'learning *region*', but their argument is crucial to the debate[4]. Indeed, one of the main concerns that Maskell *et al.* (1998) bring to the fore is very similar to that examined by Asheim (1996). The specific question is:

> 'How can high-cost regions in general and small industrialised countries in particular sustain competitiveness and prosperity in an increasingly globally integrated world economy?' (Maskell *et al.,* 1998, p.3).

The perception that prosperous regions and countries are somehow threatened by the internationalisation of the economy comes from the assumption that the 'internationalisation process brings with it a process of *ubiquitification*, i.e. a process in which previously localised factors of production become more or less equally available in different parts of the world' (Maskell *et al.,* 1998, p.28; emphasis added). In the 'knowledge-based economy' where knowledge itself becomes central to economic transactions (ibid, p.24) it is the 'ubiquitification' of knowledge, that undermines the competitiveness and ultimately the prosperity of advanced regions and

[4] Besides, Maskell et al., 1998 maintain that the distinction between *countries* and *regions* is 'increasingly anachronistic' (ibid, p.10) and that the difference is 'increasingly in degree, rather than in kind' (ibid, p.11).

countries (ibid, p. 19-24; see also Maskell and Malmberg, 1999). Indeed as soon as knowledge is *codified*, it is rendered accessible to competitors in lower-cost regions. Therefore,

> 'in a knowledge based economy ... firms in high-cost areas must either shield some valuable pieces of knowledge from becoming globally accessible, or be able to create, acquire, accumulate and utilize codifiable knowledge a little faster than their cost-wise more favourably located competitors' (Maskell and Malmberg, 1999, p.9).

One way to 'shield' knowledge is to keep it as *tacit* knowledge embedded within localised clusters and to support knowledge creation through specific 'localised capabilities' such as resources, institutions, social and cultural structures[5] (Maskell *et al.*, 1998; Maskell and Malmberg, 1999).

The fourth, and probably the most influential, version of the 'learning region' has been laid down by Kevin Morgan (1997). The theoretical apparatus he employs is in broad concurrence with the contributions presented above. Indeed, Morgan (1997) emphasizes what he sees as a growing 'convergence' between the fields of innovation studies and economic geography, which 'highlights the significance for regional development of the interactive model of innovation' (ibid, p.491). Morgan draws on a wide range of theoretical impulses including 'neo-Schumpeterian' and 'evolutionary economics' approaches (Dosi, Freeman, Hodgson, Lundvall), 'social capital' (Putnam), 'knowledge-creating company' (Nonake and Takeuchi) and stresses the importance of the 'intangible assets' such as knowledge, competence, skill and organisational culture (see Morgan, 1997, p.492-494). He points to the recent development of arguments about interactive learning and innovation at the level of the individual firm, at the inter-firm level and at the national level (ibid, p.494) and then goes on to explore the *regional* dimension of these processes. Here, the influence of Camagni, Cooke, Amin, Thrift, Maskell, Malmberg and others is acknowledged, but particular attention is given to the arguments of Michael Storper. Indeed, special

[5] An interesting feature of the above account is that it suggests that knowledge-based competitiveness does not have to be derived from 'high-technology'. Instead, Maskell *et al.* (1998) argue, small open economies can maintain their competitive advantage through low-technology sectors including wooden furniture or fishing industry.

emphasis is given to the concept of a region as 'a key, necessary element in the "supply architecture" for learning and innovation' (Storper, 1995a, cited in Morgan, 1997, p.495) and 'untraded interdependencies' at the regional level as key facilitators of such learning. It could be argued then, that Morgan only replicates and reflects a growing consensus in economic geography in relation to learning, institutions and regions. The significance of Morgan's contribution, however, lies with the following two features. First, in contrast to all above approaches, Morgan has shifted the focus away from prosperous regions and discusses the 'learning economy' in the context of the *less favoured regions* (LFRs) of Europe. Second, he gives the 'learning region' paradigm a strong *policy dimension*. For these features, the work of Morgan deserves to be examined in a more detail and this will be undertaken in the following section 3.3 .

Meanwhile, it is worth noting that further to the above four approaches of Florida, Asheim, Maskell *et al.* and Morgan, other accounts of 'learning regions' have appeared in recent years (Lagendijk, 2000; Hassink, 1997, 1999; Landabaso and Reid, 1999; Landabaso, 2000; Bellini, 2000; see also Boekema *et al.*, 2000a; Cooke, 2002; inter alia). These contributions add to the diversity of views and consequently compound the difficulties of Boekema et al. (2000b, p.3) in providing a 'simple definition' of the 'learning region' (see also below). However, it could be argued that none of these latter accounts depart dramatically from the overall framework outlined by Florida (1995a), Asheim (1996), Maskell *et al.* (1998) or Morgan (1997). Indeed, on the basis of the above literature overview, it could be said that 'learning region' theorists build on several commonly held positions. For the sake of the further argumentation that will follow in subsequent sections, these positions could be tentatively summarised as follows.

First of all, there is a commonly shared conviction that the role of knowledge in the economy and society is indeed growing (Florida, 1995a; Maskell *et al.,* 1998, p.3 and p.24; Amin and Thrift, 1999, p.293; see also Bryson et al., 1999;) and that the current economy is best described as the 'learning economy', 'knowledge economy' or 'knowledge-based economy' (Florida, 1995a; Storper, 1995b, 1997a; Maskell *et al.*, 1998, p.3,24; Morgan, 1998, p.230; Boekema *et al.*, 2000b, p.4; Cooke, 2002; *inter* *alia*). Within such an economy (echoing Lundvall and Johnson, 1994), knowledge is considered as 'the most important resource and learning the most important process' (Morgan, 1998, p.230; Boekema *et al.*, 2000b, p.4; see also Florida, 1995a). Consequently, '[k]nowledge has become a central organising concept for those concerned with regional economic development' and '*learning* has become the best way to understand regional economic change' (Malecki, 2000, p.119). In effect, the region has become conceptualised as a 'nexus of learning processes' (Cooke and Morgan, 1998).

Second, it is maintained that learning is a *collective* process (Camagni, 1991b, p.3; Asheim, 1996; see also Cooke, 1998 on various forms of learning). Therefore, it is not confined to individuals, or even individual firms, rather it is conceptualised as occurring *between* firms (producers, suppliers, competitors), between firms *and* consumers (users) and between firms *and* a plethora of local or regional institutions (Amin and Thrift, 1994a; Cooke, 1995b, 1995c; Storper, 1997a; Morgan, 1997, 1998). Third, the result of this learning process, resulting knowledge, is however a rather 'leaky phenomenon' (Storper and Scott, 1995, p.510). Indeed, as soon as it is *codified*, the global knowledge economy renders knowledge ubiquitous and makes it open to competitors' appropriation and replication. Therefore, it is non-codified or *tacit* knowledge that is a crucial source of competitive advantage (Maskell *et al.*, 1998; Maskell and Malmberg, 1999; see also Storper, 1995b, p.397, p.405).

Fourth, tacit knowledge, requires regular face-to-face contacts of involved actors. It is assumed that in the absence of 'magic carpets' (Storper and Scott, 1995, p.506) these face-to-face relations are only sustainable within a certain spatial proximity (see also Cooke and Morgan, 1998, p.34, 80). Besides, fifth, what is needed for successful 'collective learning' is a set of *informal* institutions such as habits, conventions, rules of conduct, lubricated by co-operative culture and trust (Storper, 1997a; Cooke, 1998; Maskell *et al.*, 1998; Maskell and Malmberg, 1999, p.16-17). These factors, it is believed, are place-specific and supported by regionally-based *formal* institutions (see below) that facilitate the exchange of knowledge and ideas between regional actors, guarantee continuous innovation and ensure co-ordination of regional action for the benefit of all participants (Amin, 1999; Amin and Thrift, 1994a, 1999; Cooke and

Morgan, 1998; Storper and Scott, 1995; Storper, 1997a, 1999; inter alia). Thanks to 'localised learning' and 'institutional endowments' (Maskell *et al.,* 1998, p.97), 'learning regions' can thrive in the 'global knowledge economy' (cf. Florida, 1995a), while becoming the basic organisational units of such an economy (Florida, 1995a; see also Storper and Scott, 1995, p.509; Storper, 1997a, 1999, p.23).

To conclude, it could be said that in comparison to economics-based approaches, the above conceptualisation of 'learning regions' brings very different answers to the questions of economic agglomeration and competitiveness. As Peter Maskell and his colleagues assert, 'it has to do with *knowledge creation* and with the development of *localised capabilities* that promote learning process' (Maskell *et al.,* 1998, p.193). The themes of learning, knowledge creation and localised capabilities that are believed to lie behind the success of advanced regions have subsequently become central to the discussion on less-favoured regions to which we now turn.

3.3 Less-favoured regions as 'learning regions'

Indeed, the above 'new regionalist' or 'institutional' turn in economic geography has had crucial implications for the debate on peripheral or less favoured regions. Several authors have expressed their optimism on the prospects of such regions in the 'learning' or 'knowledge economy' (Maskell *et al.,* 1998; Rutten et al., 2000; Cooke, 1995a; Storper, 1995b; Morgan, 1997; Porter, 1998; inter alia). In part this optimism has been derived from the very nature of the 'knowledge economy' and factors that allegedly guarantee economic success (see above). Indeed, as Porter suggests '[c]ompetitiveness is no longer limited to those nations with a favourable inheritance' (Porter, 1998, p.xxii). This is because, as Malecki plainly put it, '[a] primary need for knowledge-based development for "learning regions" is simply knowledge and information' (Malecki, 2000, p.116). In turn, knowledge and information, are considered as factors that are either (a) readily available to all regions (courtesy of ICT and 'ubiquitification'), or (b) can be easily emulated locally by better self-organisation. Indeed, as Porter argues:

'In the modern global economy, prosperity is a nation's *choice*... Nations choose prosperity if they organize their policies, laws, and institutions based on productivity' (Porter, 1998, p.xxii; emphasis orig.).

Given that, according to Porter himself, productivity is best achieved in localised regional 'clusters' (see above) it is not difficult to arrive at a conclusion that *regional prosperity is a matter of regional choice.* Indeed, seen through Porter's prism, regions and communities can be seen as having a *choice* between poverty and prosperity. Regions can achieve the latter by mobilising their own social capital, building institutions, forging co-operative networks and organising endogenous innovative clusters. The idea that regional economic development is somehow a 'matter of choice' or 'will' resonates through much of the 'new regionalist' literature and carries important implications for the conceptualisation of regional development. Importantly, it implies that prosperity of regions is in their own hands, and that individual LFRs themselves can do much to change their economic fortunes, principally by unlocking 'hidden local potentials' (Amin, 1999). Indeed, several further claims have been made on the subject in that direction. Maskell *et al.* (1998), for instance, contend that the

'emerging knowledge-based economy represents genuinely new and profound opportunities for endogenous economic development, even for the until now less developed regions and countries' (Maskell *et al.*, 1998, p.188).

And in a somewhat similar vein, Rutten, Bakkers and Boekema assert boldly that '*all* the world's regions have a chance of success in the global [knowledge] economy' (Rutten et al., 2000, p.257; emphasis added).

Turning 'rustbelt' regions into 'learning regions'

Such prospects of success would indeed be welcome, not least by old industrial or 'rustbelt' regions that have suffered long-term industrial decline but are keen to 'learn' new development trajectories in the 'post-industrial' or 'knowledge-based economy'. Observed from a somewhat more realistic viewpoint, however, '[r]ustbelt regions are hard to turn round' (Cooke, 1995c, p.243). Nonetheless, even Cooke himself remains optimistic that the task of 'turning rustbelt regions round' *is* possible, while acknowledging that the challenge is that of 'turning [r]ustbelt regions into *learning regions*' (ibid, p.236), by which he means building co-operative innovation clusters and systems of regional innovation. The aim of such endeavour is to avoid the 'low road' of development (low skills, low value added and low wages) and to fully embark on the 'high-road strategy' (ibid, p.236) delivering a high-skill, high-wage, high-value added regional economy.

Several authors have contributed to the debate about how the above could be done (see Florida, 1995b; Morgan, 1997, 1998; Morgan and Nauwelaers, 1999; Storper and Scott, 1995; Storper, 1995b; see also Halkier et al., 1998; Giunta et al., 2000; Lagendijk, 2000; inter alia). For Florida (1995b, p.170), to become 'learning' or 'knowledge-creating regions', old industrial areas must adopt the principles of a 'high-performance economic organisation' (see also above). This includes new ways of organising work, new relationships with suppliers and customers and a focus on continuous improvement (ibid, p.164). Florida uses the example of the 'Great Lakes Region' – an old industrial heartland of USA – to argue that behind its shift towards a 'learning region' was international investment (especially from Japan) bringing best-practice technology and management, 'organisational restructuring' of domestic companies (including powerful partnerships with suppliers) and the diffusion of high-performance organisation principles into the broader manufacturing supplier base (ibid, p.168).

Another success story from the American environment has been portrayed by Malecki (2000). The area of Boston, Massachusetts, once described as hopelessly inflexible and lacking enterprise culture (Saxenian, 1994) has now been turned, according to Malecki, into a 'learning region'. For Malecki (2000) this achievement can be seen as a sign of a spectacular resilience of the region, the resilience primarily based on the 'agglomeration of brains' (ibid, p.117), i.e. the excellence of its educational institutions and diffusion of knowledge through its world-class research universities into the regional economy.

Similar strategy elements for 'regional renewal' could be found in the aforementioned influential contribution by Morgan (1997). As already indicated in the previous section, the significance of his work lies with the fact that he offers a strong policy message and places the 'learning region' paradigm firmly in the context of less favoured regions (LFRs) in Europe (see also Morgan and Nauwelaers, 1999). It could be argued that Morgan's work represents a dominant way of thinking in economic geography about LFRs. For these reasons, his work deserves closer examination. Several points should be highlighted. The first one concerns the conceptualisation of the regional problem. In Morgan's view, the 'convergence' of innovation studies and economic geography results in uneven development being conceptualised as an outcome of differentiated levels of learning and innovation. In other words, less favoured regions are under-performing due to their inferior innovation (or learning) capability. For Morgan, improving the innovation/learning capability in LFRs is therefore an answer to uneven regional development in Europe.

Morgan (1997) does not deny that the above constitutes a major challenge. However, employing 'optimism of the will [and] pessimism of the intellect' (ibid, p.498) he goes on to argue that the desired improvement in innovation capacity of LFRs can be achieved by 'building a stock of social capital' and improving regional networking capacity (ibid, p.497). 'Networking' seems to be central to this stratagem, because as he argues elsewhere, 'what matters most from a developmental standpoint is not institutions *per se* but the *networking* capacity of institutions' (Morgan, 1998, p.231). This argument would seem to be supported by several other authors (see Cooke, 1995c, 1998, 2002; Cooke and Morgan, 1998; Storper and Scott, 1995; Amin and Thrift, 1994b; inter alia). Indeed what apparently characterise economically successful regions is 'institutional thickness' (Amin and Thrift, 1994b). This latter term includes the 'strong institutional presence' of a plethora of institutions of different kinds, ranging from firms, financial institutions, local chambers of commerce, training agencies, trade associations, local authorities, development agencies, innovation centres, clerical bodies, unions, government agencies, business service organisations, marketing boards, etc. (ibid, p.14). But while such 'institutional presence' is *necessary*, it is not a *sufficient* condition for regional success. Indeed, what is required are 'high levels of interaction' among those institutions, 'patterns of coalition' and mutual awareness among participants in the set of institutions that they are involved in a 'common enterprise' (ibid, p.14).

The challenge for LFRs is to mimic such associative institutional conditions. As Cooke has put it, it is 'the reflexive, associative, learning regions that are highly likely to make the economic running in future, and the challenge is to emulate them' (Cooke, 1995c, p.245). Similar points have been made by Storper and Scott (1995) who also put institutional endowments at the forefront of the regional competitiveness debate. Indeed, as they claim, 'regional institutions will almost certainly play a central role in determining which regions move forwards and which will fall into decline' (Storper and Scott, 1995, p.509). What they understand as relevant 'regional institutions' are those able to overcome endemic market failures by appropriate 'collective action' (ibid, p.509). These 'institutions' and 'collective actions' include support for pre-competitive and enabling R&D, market stimulus programmes, regional technology centres, labour training institutions, industry service centres, regional development funds, but also actions to secure trust, confidence and co-operation and to build political coalitions. These political coalitions should aim to bring together the relevant actors - industry, labour, the community and government – and promote 'projects in which *all* will win' (ibid, p.517; emphasis added). In addition to these institutional arrangements, regions should build a 'reflexive' capacity (Storper, 1997b) embodied in 'institutions whose role is specifically to look forwards' (Storper and Scott, 1995, p.516; see also Hudson et al., 1997).

Meanwhile, it is worth noting that the above remarks of Storper and Scott about the 'coalition' between industry, labour and government, is in line with the growing consensus among many economic geographers about a need of rapprochement between capital, labour, and the state, and the growing significance for regional development of institutions emerging at the interface between market and state or between public and private spheres (Cooke and Morgan, 1993; Amin and Thrift, 1995; Cooke and Morgan, 1998; Cooke, 2002; inter alia). But as Morgan (1998) has observed, in less favoured regions 'private institutions are often thin on the ground', and therefore public sector agencies 'invariably have to assume the leading role in animating economic development' (ibid, p.229). According to Morgan (1997, 1998), such a leading role in animating the regional economy can be played by a regional development agency (RDA).

RDA as an animateur of the 'learning economy'

Morgan (1995, 1997, 1998) has demonstrated the case of *animateur* through the example of the Welsh Development Agency (WDA) which, with an annual budget of some £170 million and around 300 staff, is 'one of the largest and most experienced regional development agencies in the EU' (Morgan, 1997, p.498). The challenge for the WDA is to promote the Welsh economy that suffered a long-term industrial decline, and subsequently became dominated by foreign-owned branch-plants geared towards low-skill production activities (ibid, p.498). However, Morgan argues, more recently there have been signs that 'innovative' or 'embedded' branch-plants (cf. Amin et al., 1994) have been emerging in Wales and that this change has been accompanied by an important shift in the WDA's policy approach. Indeed, partly in response to the new challenges such 'embedded' plants may bring, partly in response to a dramatic downfall of its budget, the WDA has moved in the mid-1990s from 'hard' infrastructure projects (land reclamation, advance factory building, inward investment attraction) to 'soft' infrastructure provision (Morgan, 1997, 1998). This 'soft' infrastructure or even '*info*-structure' (Morgan, 1998, p.230) is primarily concerned with business services, skills and social capital. In line with the view that 'firms learn best from other firms – be they customers, suppliers or competitors' (ibid, p.239), the WDA facilitated the creation of several associations targeted at endogenous SMEs. The hope is that these firms would engage in networking and thus facilitate the processes of trust-building and 'collective learning'. In addition, this effort appears as an important part of the strategy to turn foreign investors' plants (many of them Japanese) into 'embedded' plants by promoting their long-term partnerships with local suppliers (endogenous SMEs), not dissimilar to those praised by Florida (1995b) in the case of the 'Great Lakes Region'. Besides these activities, the WDA has engaged in the creation of technology support programmes aimed at enhancing the capacity for product, process and organisational innovation in the SME sector (Morgan, 1997, p.499). Delivered through 'technical centres' largely based at Welsh universities, this programme could be seen as trying to emulate the 'learning region' experience of the Boston region described above by Malecki (2000). Further to this, the spectrum of 'new' activities of the WDA also include more active intervention in the skills formation process, in particular through co-operation with the (now defunct) Training and Enterprise Councils (TECs) and further education colleges, and by encouraging 'training consortia' (Morgan, 1997, p.499-450).

However, assessing the impact for the regional economy of all these interventions, has proved difficult so far, 'not least because the [perceived] benefits are so intangible' (Morgan, 1998, p.242). In evaluating the WDA's economic strategy, Morgan nevertheless argues that 'the most charitable thing to say is that it has helped Wales to negotiate the transition from an economy dominated by declining coal and steel industries to a more buoyant manufacturing and services-based economy' (ibid, p.242). Although Morgan (1997, 1998) does not see the implementation of the above process as an unproblematic one, he nonetheless believes that the WDA as *animateur* is at least 'engaging with the right targets, namely the institutional inertia' (Morgan, 1997, p.497). Similar appreciation of the role of regional development agencies for the regional economy has been given by several other authors (see Halkier and Danson 1997; Halkier et al., 1998; Moore, 1995; Danson, 1999; Danson et al., 2000a, 2000b; Cameron and Danson, 2000; Kafkalas and Thoidou, 2000).

Meanwhile, shifting the emphasis from regional *quangos* (such as RDAs) to democratically elected bodies, several authors have highlighted the role of regional government as *animateurs* for building the 'learning region' (Bellini, 2000; Landabaso, 2000). Indeed, Landabaso (2000, p.84) has suggested that 'regional government can play the role of the "collective intelligence" necessary for a region to spark the process of becoming a "learning region"', while Bellini (2000, p.95) has argued that '[r]egional governments are fundamental players in the construction and evolution of learning regions' (see also below). These differences apart, there is little doubt that various version of the 'learning region' form part of a much wider shift in the policy paradigm.

Learning regions: policy paradigm shift

Indeed, as Morgan has argued, policy paradigms of the Left (ranging from neo-Keynesian to Marxist) as well as those of the (neo-liberal) Right, 'seem to have exhausted themselves' (Morgan, 1997, p.491). Instead, in parallel with the emergence of the 'learning economy', a more eclectic 'third wave' is under way transcending the allegedly outdated dualism of 'state versus market' or 'public versus private' (see also Cooke and Morgan, 1998, p.18-24). This view is strongly supported by Amin (1999) and Amin and Thrift (1995, 1999) who see 'associationist' networking based in (or even beyond) socio-economics as a 'third way' in regional economic development, conspicuously reflecting the wider 'third way' discourses (see Chapter 2 of the thesis). Amin and Thrift, however, see this move as more than just an economic issue. They contend:

> 'In part, the third way is an attempt to set up networks of intermediate institutions in between market and state... But the third way is also an attempt to build networks of institutions *democratically*' (Amin and Thrift, 1999, p.298)

Thus, for Amin and Thrift (1999) the 'learning region' and other 'associationist' models represent a 'radical democratic agenda' (ibid, p.308) that would ensure that *economic efficiency* is combined with *social equity* (ibid, p.306-308; see also Cooke and Morgan, 1998 for similar arguments). This agenda includes giving 'voice' to previously excluded or marginalised groups and implies a boost of 'active participation across economy, state and civil society (Amin and Thrift, 1999, p.308). Such a stratagem envisages 'political empowerment' at the regional level (ibid, p.308, 310) which links the 'associationist' regional agenda with the voices that regional, democratically elected government should be built as part of the 'learning region' (Landabaso, 2000; Bellini, 2000). Amin and Thrift argue that without such a democratic agenda, there is a danger that 'an approach based in socioeconomics will simply slip back into a neo-liberal or liberal orthodoxy' (Amin and Thrift, 1999, p.308).

Returning back to the economic side of the argument, it has been argued that the 'learning region' is a part of a 'revolution in thinking' (Armstrong and Taylor, 2000, p.292) in regional policy. Truly, the 'learning region' signals a decisive move away from old traditional regional policies that were not only 'costly and inefficient' (Florida, 1995b, p.173), but also comprised a 'considerable obstacle to the emergence of the new [knowledge] economy' (ibid, p.173). It is believed that in the 'knowledge-based economy', '[s]ubsidies are unlikely to work, and a strong element of unbalanced regional development is likely to result' (Malecki, 2000, p.116). Thus 'new' public policy in the 'knowledge economy' moves away from subsidies and grants provided for *individual* firms, and turns instead to the promotion of 'learning capabilities' within *clusters* of firms. Simultaneously, it shifts emphasis away from building *physical* infrastructure (including business parks and science parks) in favour of promoting the *'soft'* institutional factors (building business networks, conventions, trust, social capital, etc.). These latter factors are considered as being crucial for competitiveness in the 'knowledge economy', yet their provision seems to be less costly. In the extreme, such 'new' regional policy becomes a game of managing 'talk' between regional actors (Storper, 1997a, p.271-274) and talk, as everybody appreciates, does not cost anything[6]. In short, with a little bit of exaggeration, this new policy paradigm effectively promises better outcomes for less money[7].

It is therefore no surprise that 'learning regions' have become the 'best practice' in local and regional development (Malecki, 2000, p.114) and quickly proliferated among academic and policy-making circles (Lagendijk and Cornford, 2000). Interestingly, this 'revolution in thinking' has been enthusiastically embraced by policy makers at *all* levels; from local, regional and national, to European and wider international policy-making arenas (Lagendijk, 1999; Charles and Benneworth, 2001; Benneworth and Charles, 2001; Raines, 2002; DTI, 1998a, 2001; Landabaso, 2000; Landabaso and Reid, 1999; OECD, 2001; inter alia). Within the 'New Europe', various versions of 'learning regions' and 'clusters' have been influential in regional policy-making in the West (see Chapter 6 of this thesis for case of Scotland) and,

[6] Unless it is commodified.
[7] Nauwelaers and Morgan (1999, p.237), for instance, suggest that 'the immaterial aspect of policy-building is relatively cheaper to implement than building unused facilities' and consequently, '[i]t might be the case in a number of regions that conducting more efficient innovation policies would lead to devoting less money to the system'.

more recently, similar policy models have been suggested as the best way forward for regions in the East (see Dyker, 1997; Nauwelaers and Morgan, 1999, p.237; Radosevic, 1998, 1999; Dyker and Radosevic, 1999; Mickiewicz and Radosevic, 2001; inter alia; see also Hudson, 1998; Hudson et al., 1997; for a critique see Smith et al., 1999; Myant, 1999c).

What is expected from these policies is nothing short of 'stable jobs in the long term', 'higher standards of living' and 'sustainable development' (Landabaso and Reid, 1999, p.27; see ***Figure 3.1*** in Appendix). Such outcomes would indeed be welcome. Considerable concerns, however, have been raised from various corners relating both to the way the 'learning region' can be used as a concept for understanding regional development, and as an appropriate policy tool in delivering the above desired outcomes. To this critical literature we now turn.

3.4 Limits to the 'learning region' approach

This section then aims to examine the 'learning region' approach from a critical perspective. Such a perspective is needed given that the 'learning region' (being a 'very young concept') displays 'many deficits and difficulties' (Hassink, 1999, p.107). A substantial body of critique has already emerged pointing to the weaknesses of the 'learning region' paradigm and 'new regionalist' literature more broadly (Hudson, 1999; Lovering, 1998a, 1999; Markusen, 1999a; Martin and Sunley, 2001a; MacKinnon et al., 2002; inter alia). These weaknesses could be summarised under the following headings: (a) problems with basic definitions and use of terms, (b) conceptual problems and flaws, (c) poor empirical evidence, and finally, (d) the problematic applicability of the concept to less favoured regions which in turn casts shadows over its use as a policy tool to reduce inter-regional and intra-regional inequalities. These problematic areas will be now examined in more detail.

Vague terms and definitions

A first group of problems relates to the vagueness of terms and definitions used by the literature in question. Indeed, none of the terms used as basic building blocks of the 'learning region' are properly defined, including the crucial notions of *region, institution, knowledge* and *learning*. To take the *region* first, Lovering (1999, p.383) has noticed that this 'supposedly foundational concept of the "paradigm" is nowhere clearly defined'. Consequently, the term has been used rather loosely. Florida (1995a), for instance, when describing 'learning regions', refers to regions of a population size between five to 20 million, with boundaries potentially spilling across the borders of nation-states (see section 3.2). Morgan (1997), in contrast, seems to be referring to a small nation having a form of an administrative region[8], but of the population size much smaller than that evoked by Florida. Meanwhile, Maskell *et al.* (1998) admit that the definitions of concepts such as *local* or *regional* are 'notoriously vague' (ibid, p.197, note 13), while adding to the ambiguity by claiming that the distinction between *regions* and *countries* is 'increasingly in degree, rather than in kind' (ibid, p.11). Pointing at this widespread problem, Lovering (1999, p.383) uses an example of a prominent 'new regionalist' who 'defines the region as "a geographic area of subnational extent" and then goes on to give examples, many of which are not subnational at all, while others are US regions larger than many European countries'. Such analytical imprecision is ironic, however, given the loud calls for greater sensitivity to geographical scale that 'new regionalist' literature trumpets. Indeed, little effort has been committed to provide more rigorous conceptualisation of this key term[9]. The following 'definition' of a region demonstrates well the unease with which 'new regionalist' literature approaches the conceptualisation of region:

> 'Conceptually, regions are often defined in terms of shared normative interests (culture areas), economic specificity (mono-industrial economies) and administrative homogeneity (governance areas). To these may be added such criteria as non-specific size [*sic*], except that of being subcentral in relation to its host state; identifiable homogeneity in terms of criteria such as geography, political allegiance and cultural or industrial mix; ability to be distinguished from other areas in terms of these criteria; and possession of some combination of internal cohesion characteristics. To some extent, the introduction of the "cluster" concept gives impetus to the possible differentiation of some regions, and that may tentatively be linked to some

[8] More recently, Wales has been 'upgraded' to the form of 'regional state' having acquired an elected assembly as part of the devolution process in the UK (cf. Chapter 6 for the case of Scotland).

common cultural characteristics... But increasingly, it is the perhaps slight variation in governance arrangements that is important in defining regions.... It is the institutional capacity ...that give regions a strong conceptual and real identity' (Cooke, 1998, p.15).

In short, the definition of the allegedly 'basic unit' of knowledge-intensive capitalism remains largely unclear. The problem in defining *region* has in turn fundamental repercussions for the paradigm in question, because it renders problematic other foundational terms such as '*regional* institutions' that Storper and Scott (1995, p.509) claim are so central to regional prosperity. In fact, the term *institution* itself seems to be used rather loosely in the 'new regionalist' literature. As Martin and Sunley (2001a, p.154) have pointed out, there is no generally agreed definition of institutions even within heterodox institutional economics[10] and 'geographers often carry over problems inherent in [it] and then add their own distinctly ambiguous claims and concepts'. Martin and Sunley (2001a) also single out the term 'institutional thickness' as being a prime case of such ambiguous conceptualisation (see also Henry and Pinch, 2001). Indeed, it is often not clear whether literature refers to *institutions* as *organisations* (such as firms, development agencies, universities, regional authorities, etc.) or to a specific institutional arrangements between such organisations (e.g. various networks) or whether institution is used in a sense of customs, habits, conventions, rules of behaviour, etc. that may permeate (or not) through such organisations or networks (cf. Amin and Thrift, 1994b; Storper and Scott, 1995; Morgan, 1997, 1998; inter alia). Storper himself contributes to this continuous confusion by arguing that 'institutions are only the tip of the iceberg of un-traded interdependencies or conventions' (Storper, 1995b, p.409) while defining 'untraded interdependencies' as 'labour markets, public institutions, and locally or nationally derived rules of action, customs, understandings, and values' (Storper, 1999, p.37-38).

Similar problems are encountered when defining *learning* and *knowledge*. It is claimed for instance that '[k]nowledge is a fundamental part of our human existence and being' (Howells, 2000, p.50) and central for understanding regional economic processes (see section 3.2) but a thorough conceptualisation in the context of regional

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[9] But see Tomaney and Ward (2000) and Allen et al. (1998) for a discussion.

development seems to be missing. Editors of a recent volume on the geographies of 'the knowledge-space-economy' (Bryson et al., 2000b, p.2) assert that '[k]nowledge really does matter' (Bryson et al., 2000c, p.277) and contend that '[i]t is clear that advanced capitalism is knowledge intensive' (ibid, p.278), but conclude that 'knowledge is a difficult, slippery concept to define' (ibid, p.278) and that the 'definitional problem' implies that 'knowledge can be everything and nothing' (ibid, p.278).

The difficulties in defining *knowledge* are complemented by an ambiguous conceptualisation of the process through which knowledge is created, i.e. *learning*. Indeed, the 'new regionalist' literature puts *learning* at the forefront of its conceptualisation, but without properly defining the term. Thus, underneath the seemingly robust consensus about the central role of learning in regional economic development manifested through the entire 'new regionalist' literature, there is a notable inconsistency in what is actually meant by learning. Storper (1997b, p.252), for instance, conceptualises *learning* 'as a form of reflexivity' and therefore 'fundamentally a dynamic process, where the parameters of interaction must be unstable if learning is to take place'. Economic reflexivity, for Storper, is a central characteristic of contemporary capitalism, where the term 'reflexive'

> 'refers to the possibility for groups of actors in the various institutional spheres of modern capitalism – firms, markets, states, household and others – to influence the course of economic evolution as a result of their own critical distance from the traditional functions of these spheres...' (ibid, p.249).

Elsewhere, Storper (1997a, 1999) defines *learning* with a strong technological bias, because, as he believes, technological change is 'the principal vector of competition' (1997a, p.287, note 4). Thus, central to the 'learning economy' is *technological learning* (1999, p.39) or 'product-based technological learning' (1997a, p.287, note 4). The latter term, Storper suggests is, 'analytically speaking', different from simple innovation (see ibid), while arguing in a different part of the same work that learning is one of the central elements of technological innovation (ibid, p.107). Elsewhere

[10] cf. Chapter 2 of this thesis.

Storper (1995a, p.414-416) talks about the 'technological learning trajectories' of countries in a 'global learning economy' (ibid, p.413). In contrast to such ambiguous, yet distinctively *technologically-biased* versions of learning, Amin and Cohendet (1999) have emphasised *organisational* learning. Seen as the most important element of competitiveness, such *learning* is about evolving and adapting organisational structures of firms and business networks (see also Asheim, 1996). Meanwhile, Morgan (1997) seems to combine the two approaches and define capitalism as an evolutionary process driven by 'technical *and* organizational innovation' (ibid, p.492, emphasis added). He then goes on to argue that innovation is an interactive process that 'should be conceived as a process of *interactive learning*' (ibid, p.493, emphasis orig.). The fact that *learning* is a collective and interactive process seems to be shared across the 'new regionalist literature', and in Morgan's (1997) terms occurs

> 'between firms and the basic science infrastructure, between the different functions within the firm, between producers and users at the interfirm level and between firms and the wider institutional *milieu*' (ibid, p.493; see also Florida, 1995a; Asheim, 1996).

The list of variegated forms of *learning*, however, does not end here. Indeed, while learning is allegedly the central feature of economic processes *within* regions, it can supposedly also occur *between* regions (WDA, 1998; see also Hudson et al., 1997). Learning can have a form of learning from abroad (Lundvall and Johnson, 1994) while successful regions are also said to be able to 'learn ahead' (see Storper and Scott, 1995; Amin and Cohendet, 1998; Hudson et al, 1997; Hudson, 1998). For Hudson et al (1997, p.371) the latter term refers to the collective capability of regions 'not so much to adapt to change as to anticipate it and change accordingly'. Elsewhere, *learning* has been used as a metaphor for regional 'trajectory switching' (see Cooke and Morgan, 1998, p.78). More recently, the significance of the concept of learning has been re-emphasised by Boekema *et al.* (2000b) by claiming that:

> '[k]nowledge, innovation and economic growth have been studied before... But the fact that they are now studied from the perspective of learning, which

makes their interconnectedness even *clearer*, is the merit of this new paradigm: the learning region' (Boekema *et al.*, 2000b, p.4; emphasis added).

However, an alternative reading of the 'new regionalist' literature could be that far from delivering a 'clearer' picture, the 'perspective of learning' may in fact contribute to the blurring of the picture of regional economic development. Indeed, one cannot escape the impression that in the context of 'learning regions' the term *learning* is used to cover virtually everything, from rising a stock of knowledge in firms, to adaptability of networks, and from organisational evolution of enterprises to changing industrial trajectories of whole regions or even countries. Given such diverging and ambiguous definitions of *learning* itself, one could easily be tempted to echo the above verdict on knowledge by Bryson et al. (2000c, p.227) to argue that '*learning* can be everything and nothing'. One way or another, the definition of allegedly the most important process in the contemporary economy - *learning* - remains open, and this only compounds the problems with conceptualisation of the 'learning region' that will be examined in turn.

Fuzzy conceptualisation

Indeed, given the difficulties in defining its basic building blocks, it is perhaps not surprising that even for 'learning region' enthusiasts, the conceptualisation of the 'learning region' remains problematic (see Boekema *et al.*, 2000b, p.3). Consequently, lacking thorough conceptualisation, the 'learning region' concept easily slips into the category of economic geography for which 'vague theory' (Martin and Sunley, 2001a, p.152-154) is a characteristic feature, carrying the danger of 'reducing economic geography to superficial "storytelling" reliant on a trendy and fast-moving jargon that constantly evades any rigorous evaluation' (ibid, p.149). 'Learning region' theorists, meanwhile argue that the 'learning region' is 'a paradigm rather than a concept or a theory' (Boekema *et al.*, 2000b, p.4). But critics have pointed out that the 'New Regionalism [of which learning region is a prime example] is not really a paradigm at all'[11] (Lovering, 1999, p.384) because '[w]e are not dealing here with the normal-science applications of a rigorously developed foundational theoretical insight but rather with a loose bundle of ideas' (ibid, p.384). Lovering (1999) maintains that this 'loose bundle of ideas' might tell an attractive and persuasive story, but it is 'largely a fiction' that 'fails to explain contemporary regional economic development' (ibid, p.380). Its central weakness, according to Lovering (1999, p.385), is 'bad abstraction' which produces 'wordy summar[ies] of speculation about how regional development might occur in an imaginary world', but failing to account for regional development 'on the planet we actually inhabit' (ibid, p.385; see also Lovering, 1998a). The 'learning region' thus seems to be a prime candidate to be labelled a 'fuzzy concept', by which Markusen (1999a) means characterisations that lack conceptual clarity and are difficult to operationalize[12] (ibid, p.870). For Markusen (1999a, p.871) there are only two main reasons why concepts can be 'fuzzy': either they are new concepts in the stage of development (and this is what Hassink, 1999, implies is the case with the 'learning region' concept), or they 'might simply be bad concepts' (Markusen, 1999a, p.871). Unfortunately, the 'learning region' paradigm seems to suffer heuristic problems that are unlikely to be overcome as the concept 'matures'.

The first fundamental problem of the 'learning region' concept is that it is built as an integral part of, or more precisely as the regional dimension of, the 'knowledge/learning economy'. Indeed, it has been argued that the 'learning region' as a concept 'fits into the wider context of the knowledge-based economy' (Rutten et al., 2000, p.250), and that the 'learning region' is a 'proponent of the knowledge-based economy' (ibid, p.250). But as demonstrated in Chapter 2, the concept of the 'knowledge economy' itself is problematic and obscures the nature of the emerging 'new era'. The central arguments of the 'knowledge economy' about knowledge as being a driving force of economy and learning as the most important process may be misleading. Unfortunately, the 'learning region' literature has uncritically embraced the mantra of knowledge and learning, while compounding the problem by attempting to transpose the 'knowledge economy' model on the regional scale. The issue has, of

[11] Lovering (1999, p.385) uses 'intelligent region' as the prime example of the 'new regionalist' sloppy 'theorisation'.

[12] Markusen (1999a, p.870) uses 'learning region' as the first example of a 'fuzzy concept' but, ironically, tells a story of a doctoral student who, with her help, was able to 'pin down the concept of "learning region"' resulting in a 'wonderful thesis with original conceptualisation'.

course, profound implications and these will be discussed in more detail in section 3.5.

Another fundamental problem of the 'new orthodoxy' lies with its loud insistence that the region is now the basic unit of today's capitalism (see Florida, 1995a; Storper and Scott, 1995; Storper, 1997a, 1999; inter alia). By doing so, 'new regionalism' tends to neglect powerful forces in the *wider political economy* that impinge upon regional fortunes. Importantly, this myopia involves a failure to recognise the power of the *nation-state* in shaping regional trajectories. The institution of the state might have undergone significant transformation (and this in some cases might have included the devolution of powers to regions) but nation-states have not been abolished (cf. Anderson, 1995; Chapter 2 of this thesis). Quite to the contrary, the nation-state continues to exercise some vital economic powers (Amin and Tomaney, 1995e; Hudson et al, 1997, p.371; Hudson, 1998, p.16-18; Dicken, 1998; Jessop, 2000; inter alia) and therefore cannot be abstracted away from the analysis of regional development (Lovering, 1998a,1999; Markusen, 1999a, 1999b; Hassink, 1999; MacLeod, 2000; MacKinnon et al., 2002). In fact, in some instances the state may play a *crucial* role in the 'success' of a regional economy (Markusen, 1999b; Hudson et al, 1997, p.369).

There is no better example of this myopia than is the case of the much-vaunted Silicon Valley – an 'icon of success' (Markusen, 1999a, p.880). Recently labelled without hesitation as a 'learning region' (see Rutten et al., 2000, p.246), Silicon Valley is held as a successful growth model based on a regional networked economic system of competing and collaborating companies learning from one another, dense social networks and a local entrepreneurial culture (Saxenian, 1994, p.2-3). Rarely, however, is it mentioned that the success of the Valley is inextricably linked to US defence expenditure, as it is the fourth largest recipient of military spending contracts in USA (Markusen, 1999b, p.118; see also Markusen, 1999a, p.880) amounting to US$5 billion annually even in the 1990s (Markusen, 1999a, p.879). In the light of this, the argument that the spectacular rise of the Silicon Valley is a result of a networking culture of local innovators and open-minded risk-taking entrepreneurs looks unimpressive, while the picture of endogenously-driven regional growth disintegrates.

Instead, it is probably more appropriate to situate the emergence of a high-tech region such as Silicon Valley in the context of the military and technological build-up during the Cold War confrontation with the USSR (see also Chapter 4). More generally, the military spending of nation-states remains high even in the post-Cold War era – especially in the UK and USA (Lovering, 1998b; Markusen, 1999a, p.880) – and in fact represents a form of 'industrial policy' (cf. Sandler and Hartley, 1995). Importantly, such policy can have its spatial implications and the rise of the US 'gunbelt', of which Silicon Valley is a part, (Markusen et al., 1991) is a cogent example of this (see Buswell et al., 1985 for a similar argument about the high-tech regions in the UK).

Beyond defence spending, nation-states perform a plethora of other 'hidden regional policies', i.e. 'non-spatial' policies with spatial impacts[13] (Mohan, 1999, p.108-110) and hold a grip over a range of powers that are not adequately conceptualised in the literature on 'learning regions'. The neglect of the role of the state is usually accompanied by a virtual absence of discussion of *supra-national* and *international regulatory bodies* (such as EU, WTO, OECD, IMF or World Bank). These institutions increasingly play an active role in shaping global economic processes that have important bearings for the fortunes of states and their regions that are not captured by this literature.

The lack of attention to a wider political economy is also reflected in a limited understanding of *corporate dynamics* and the way it affects regions. Intra-regional business linkages are overemphasised at the expense of neglecting the role of 'external linkages' (Markusen, 1999b; MacKinnon et al., 2002; Oinas, 2000; Smith et al., 1999; Simmie, 2002a; Simmie, 2002b; more recently also Amin and Thrift, 2002). When external forces are allowed to play a part in the 'learning region', they come in a form of foreign direct investment (FDI) that is seen as a benign force (Florida, 1995a, 1995b) potentially bringing jobs, skills and value-added directly or via local supply-chain networks (Morgan, 1997). The fact that, in an era of heightened competition, multinational corporations are not concerned with the development of regions but with reaping corporate profits, is underplayed in the analysis. Thus the fact that the regional networks dominated by multinational corporations (MNCs) can be characterised by 'sharp asymmetries of power' is overlooked (Hudson, 1999, p.67; see also Amin and Tomaney, 1995a; Dicken, 1998; Pavlínek and Smith, 1998; Smith et al., 2002).

A further weakness of the 'learning region' concept is that it is pre-occupied with firms, while downplaying other forms of capital. Indeed, the whole 'new regionalist' literature is conspicuously silent about the role of *finance capital* (Lovering, 1998a, 1999). This is a problem because it is the rise of global finance that probably represents one of the most vital features of present capitalist activity (see Harvey, 1989, p.196; see also Chapter 2). The operation of finance capital, Wall Street/the City, global capital movements or currency exchanges and the way these may impact on regional fortunes is not grasped by the 'new regionalist' literature (Lovering, 1999, p.387). Another fundamental omission of the 'learning region' concept is an inability to properly account for the role of *labour* in general, and organised labour in particular in economic processes. As Smith et al (1999, p.17) noted, 'workers as conscious active beings are almost entirely absent from the [new regionalist] analysis'.

Having omitted from the analysis major institutional players and/or having obscured their underlying interests, it is perhaps not surprising that the 'learning region' literature conveys a rather distorted account of the contemporary political economy. Advocates of the 'new regionalism' usually acknowledge that the economy remains capitalist, nevertheless, they believe that the nature of capitalism has changed significantly. Subsequently, they maintain a particular vision of a region, where firms, workers and various regional institutions – supported by regional identity, culture and trust – engage in a 'common enterprise' of networking, collective learning and knowledge sharing for the benefit of all (cf. Storper and Scott, 1995; Amin and Thrift, 1994b; Amin and Thrift, 1999; Cooke and Morgan, 1998; inter alia). This is perhaps an attractive prospect, but such a vision of the economy seems to miss several fundamental points. First, it underscores contradictions inherent in the capitalist economy (see Chapter 2) including capital-labour relations and relations between

[13] See for instance Charles and Benneworth (2001) on the science policy in the UK and its regional

various forms of capital. Indeed, the picture of regional firms unproblematically learning together, sharing knowledge and expertise, developing relations of trust and co-operation in order to compete may be misleading (Markusen, 1999a; Gough, 1996) not least because the opportunities for inter-firm learning in the tough competition-driven environment are limited[14] (Hudson, 1999). Unsurprisingly then, the concept of regional 'clusters' (so central to much of the 'new regionalist' literature) has been judged a 'chaotic concept' – a 'patchy constellation of ideas' failing to account for the main causes of regional economic growth (Martin and Sunley, 2001b, p.48). Likewise, the view that in 'learning regions', firms and workers can find a happy accommodation seems to overlook the harsh realities of corporate restructuring (Hudson, 1999) and to ignore the continuing salience of contradictory capital-labour relations (May, 2002; Jessop, 2000; see also Chapter 2). This does not mean that in certain places organised labour may not be able to achieve some sort of compromise with capitalists, but as Harvey (1985, p.151) suggests, such places might only amount to 'islands of privilege within a sea of exploitation'.

The second problematic point is that the 'new regionalist' literature takes the *region* for granted (Lovering, 1999), while failing to consider how regions have been historically institutionalised (see MacKinnon et al., 2002, p.306). Furthermore, the 'implicit claim that regions can somehow be regarded as distinct objects with causal powers of their own can be seen as a form of spatial fetishism that tends to elide *intraregional divisions* and tensions' (MacKinnon et al., 2002, p.297; emphasis added). Indeed, in part resulting from the contradictory relations described above, sharp economic, political, cultural or social divisions can be found *within* regions (cf. case studies in the Part II of this thesis). Even the most successful regional economies often display striking levels of inequality (Castells and Hall, 1994; Castells, 1996; Sassen, 2001; Perrons, 2001; inter alia), despite the claims that social cohesion is 'not simply a product of economic success but also a precondition for it' (Hudson et al, 1997, p.366). Indeed, as European policy makers have noticed, core regions or metropolitan areas embody 'the paradox of being both leading centres of development and breeding grounds for social exclusion' (*Inforegio Panorama*, No.5, 2001, p.4).

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implications.

[14] Hudson (1999, p.69) points to the fact the most valuable forms of knowledge for competitive advantage are 'guarded jealously' by successful firms (and regions).

'Learning region' theorists themselves have admitted that the social dimension of the paradigm has 'so far received little attention in scientific analysis' (Rutten et al., 2000, p.256)[15].

Third, given the above heterogeneous and divisive characteristics of regions, the claims that regional *culture* or identity can provide a 'glue' for regional actors to act together need to be critically scrutinised. Indeed, critics have noticed that the 'new regionalist' literature uses culture in a narrow instrumentalist sense while neglecting the significance of power (Lovering, 1998a, 1999; see also Sayer, 1997) and have questioned the explanatory power of 'soft factors' such as local conventions, trust or social capital in economic geography (Markusen, 1999a; see also Martin and Sunley, 2001b; Mohan and Mohan, 2002). According to Rodrígues-Pose (2001) economic geography is simply being killed by a 'cultural turn overdose'. Meanwhile Martin and Sunley (2001a) have accused the cultural turn in economic geography of 'losing focus' and argued that culturally inspired 'new regionalist' stratagem is 'built on selective reconnaissance and suspect tactics' (ibid, p.152). To support their point, they quote Sayer emphasising that '[t]o give the impression that economic logic has become subordinated to culture is to produce an idealised picture of an often brutal, economically dominated world' (Sayer, 1997, p.25, cited in Martin and Sunley, 2001a, p.153).

Finally, a fundamental issue remains unanswered regarding *regional institutions* and their role in promoting the regional economy. The literature in question seems to overlook formidable constraints and limits that institutions at the regional level may be facing (cf. Tomaney, 1996). Even regions with well-developed institutional structures or forms of regional government cannot be abstracted away from the power of the wider political economy, i.e. the power of the nation-state, supranational and international bodies, the power of capital and potentially that of labour (see above). In other words, too little of the 'learning region' literature situates its account of regional change within the framework of the wider political economy and the constraints this imposes on action at the regional level (cf. Rodrígues-Pose and Tomaney, 1999; Pike and Tomaney, 1999). Furthermore, it needs to be recognised that regional institutions

[15] Morgan (1997, p.501) himself has argued that regional innovation stratagems alone, will not resolve

cannot escape the reality of their own historical legacies and the legacies of the region they operate within (see below). Consequently, the argument about the impacts of regional institutions on the regional economy needs to be looked at critically. One of the questions that is often overlooked is whether rich regional institutional structures are *cause* or *outcome* of regional economic success and how strong the link is between the two. This leads us to another problematic area, which is the empirical validation of the 'new regionalist' claims.

Missing empirical evidence?

Beyond the weaknesses in definition of foundational terms and problematic conceptualisation, the third major deficit of the 'learning region' paradigm is manifested through poor empirical evidence that 'supports' it (Markusen, 1999a; Lovering, 1999; Hassink, 1999; MacKinnon et al., 2002;). Perhaps this is not surprising given that '[i]ll-defined concepts are simply more difficult to demonstrate empirically' (Markusen, 1999a, p.872). Indeed, the narrative style of the 'new regionalist' work tends to avoid thorough secondary data analysis and is over-reliant on interviewing techniques, while interviews selectivity, informant veracity and interviewer neutrality is questionable (Markusen, 1999a, p.878). Furthermore, such research is often confined within the border of a given region or district so that external actors and linkages are 'inappropriately eliminated from the analysis' (ibid, p.878). As a result of such narrow analytical focus, the causal inferences made are often misleading (ibid, p.878).

In a similar vein, Martin and Sunley (2001a, p.154) have argued that intensive ethnography-based research typical for the 'new regionalism' is often superficial, involving few and highly selective interviews, sloppy methodology, and little or no wider empirical contextualisation leading to 'thin empirics'. Lovering (1999) has highlighted the danger of self-reporting 'boosterist' agents, while MacKinnon et al. (2002) have argued that there have been limited empirical validations of 'new regionalist' claims so far. They maintain that the key argument of the 'learning region' school about *localised* learning as the main vehicle of regional economic

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the problems of those socially excluded and unemployed.

development remains unsubstantiated (ibid, p.304; see also Oinas, 2000). MacKinnon et al. (2002, p.305-306) thus call for more empirical studies that would employ a range of research methods[16] and use 'triangulation' by accessing a range of perspectives and by considering the position of different regionally based groups, within various regional and industry contexts. Hassink (1999, p.111) shares the view that the concept of the 'learning region' should be further tested with empirical case studies. Meanwhile, Smith et al (1999, p.18) have argued that 'new regionalism' confines itself to the putative 'success stories' of regions and fails to account for the increasingly uneven map of regional economies in Europe.

Meanwhile, the empirical evidence that has been emerging from outside of the 'new regionalist' camp often does not seem to corroborate its key conceptual assumptions. Simmie (2002a), for instance, examining the reasons for clustering of innovative SMEs in the South East of England has concluded that *international* knowledge transfers may in fact be more important as a factor than *local* knowledge spillovers. For Simmie (2002a) the regional supply-side, i.e. local R&D infrastructure, higher education establishments, rich labour market, local suppliers, etc., is an important but 'not a sufficient cause for observed concentration of innovation' (ibid, p.899). He argues that it is access to markets, i.e. the demand-side of the equation that is decisive. The access to sophisticated customers and users (often located in other advanced economies), however, is easier around large metropolitan regions (Greater London) with world-class transport and communication infrastructure enabling national and international face-to-face interactions and knowledge transfers (see also Simmie, 2002b; Hart, 1999, p.12). Similar conclusions are drawn from various other studies, confirming the agglomeration of innovative businesses in certain location (usually large metropolitan areas), but somewhat undermining the mantra of *localised* linkages and *local* networks of co-operation (see Simmie, 1997; Coe and Townsend, 1998).

Elsewhere, an attempt to empirically test the role of culture and 'social capital' for regional growth does not seem to validate 'new regionalist' claims. Using a sample of 58 European regions, Schneider et al. (2000, p.315) have concluded that the

[16] Ironically, in contrast to Markusen (1999a), however, MacKinnon et al. (2002, p.305) call for less secondary data evidence and for more corporate interviews, surveys and ethnographic approaches to examine the links between 'localised capabilities' and 'learning'.

'relationship between culture and growth is subtle' and that 'economic rather than cultural factors are the most forceful determinants of growth in the European regions' (ibid, p.307). Meanwhile, an alternative account of the Silicon Valley phenomenon has emerged in which, instead of the much-celebrated mutuality and collaborative culture (Saxenian, 1994), a culture of 'extreme individualism' and 'aggressive competition', between both companies and individuals, has been found (Castells and Hall, 1994, p.22). Furthermore, countering widespread views that regional prosperity is automatically shared by all, Castells and Hall (1994) have pointed at the striking features of discrimination, exploitation, urban segregation and poverty underneath the Valley's high-tech gilt. Hudson (1994) has meanwhile argued that building institutional infrastructure, as suggested by parts of the literature, may simply not be enough to rejuvenate less favoured regions. Finally, the evidence presented by Rodrígues-Pose (2002) focusing on Spanish regions, seem to go *against* the assumption that rich regional institutional structure automatically translates into regional prosperity (cf. Keating, 2001). Such empirical findings not only undermine the theoretical validity of the 'learning region' concept but also raise fundamental questions about its value as a suitable policy guide.

A problematic policy message for less favoured regions

Policy implications constitute the fourth major problematic area or weakness of the 'learning region' paradigm. It is a significant weakness though, because as shown in previous sections, the paradigm has harboured so many hopes for peripheral and less favoured regions. However, it seems that the 'new regionalist' literature is not only offering poor understanding of uneven regional development but also providing limited (if not misleading) strategy guidance as to what to do about it (Lovering, 1999; Amin and Tomaney, 1995b; Smith et al., 1999). It is thus not clear if less favoured regions can really 'learn' new development trajectories as suggested by that literature. 'New regionalists' themselves seem to play into the hands of the critique by providing controversial and sometimes mutually exclusive messages. On the surface, everything appears to be clear. Prosperous regions are considered successful thanks to their ability to learn faster and better (see section 3.2), thus the stratagem for lagging regions is to overcome the 'failure to learn' and create conditions for improving learning capability, knowledge creation and innovation in order to catch-up economically (see section 3.3). In the 'new regionalist' view, the global knowledge economy provides a rather favourable environment for such a catch-up process because, given the new rules, 'all the world's regions have a chance of success' (Rutten et al., 2000, p.257), even 'the until now less developed regions and countries' (Maskell *et al.,* 1998, p.188) and regional prosperity becomes a 'matter of choice' (Porter, 1998). Such a scenario would be seen as welcome, but even 'new regionalists' themselves do not believe it will come true as they themselves argue that not all regions can become successful 'learning regions' (Storper and Scott, 1995, p.523; Malecki, 2000, p.119). They can hardly be blamed for holding such a view.

Indeed, it is peculiar to suggest that less developed regions have a chance to succeed (Maskell *et al.,* 1998, p.188) while at the same time insisting that developed regions can maintain their competitive position (Maskell *et al.,* 1998; Maskell and Malmberg, 1999). It is confusing to advise less favoured regions to adopt 'best practice' and learn from their more successful competitors (Amin and Thrift, 1994a; Saxenian, 1994; WDA, 1998) while acknowledging that inter-territorial transferability of success is 'quite limited' (Storper, 1995b, p.400) because its core elements are 'not easily duplicated' (ibid, p.405; Storper, 1997b, p.257; see also Hospers and Beugelsdijk, 2000). It is unpromising to encourage lagging regions to emulate and mimic successful 'learning regions' (Cooke, 1995c, p.245; see also Hudson et al, 1997; Hudson, 1998), while admitting that 'mimicking only reproduces the lag' (Cooke and Morgan, 1998, p.68). It is problematic to encourage peripheral regions to build their competitiveness around the 'institutional thickness' (Amin and Thrift, 1994b) while it is clear that institutional elements around which to organise such strategy are largely missing (Malecki, 2000, p.115; Hudson et al., 1997, p.370; see also Amin and Tomaney, 1995b, p.32).

It is inauspicious to advise 'rustbelt' areas to become more flexible and to develop entrepreneurial culture while knowing that old industrial regions inherited institutional structures and 'socio-cultural and political *mentalités*' are often an obstacle to change (Grabher, 1993b; Hudson, 1994; Cooke, 1995c, p.232). It is daunting to promise bright futures based on prosperity and social equality (Cooke and Morgan, 1998, p.82) while admitting that seriously devastated heavy-industry economies can be rejuvenated only slowly and unevenly (Cooke, 1995c, p.232). It is unconvincing to base regional renewal strategy on innovation programmes (Morgan, 1997) while knowing that less favoured regions suffer from the low absorption capacity of such programmes as manifested through 'regional innovation paradox' (Landabaso, 2000, p.80; Oughton et al., 2002). It is problematic to promote the renewal of a region (Morgan, 1997) while implementing strategies that seem to favour development *in* the region as opposed to the development *of* the region (Lovering, 1999). It is ambiguous to claim that underperforming regions need state help while trying to prove that such regions can do much more for themselves (Cooke, 1995a; Morgan, 1997; Storper and Scott, 1995; Florida, 1995a; Amin and Thrift, 1994a, 1994b). It is dubious to demand that strategies at the regional level should be accompanied by actions on other levels in particular by a supportive central state (Storper and Scott, 1995, p.523; Morgan, 1995, p.38, 1997, p.501) while admitting that such regional strategies are in fact a response to the withdrawal of much state support (Morgan, 1995, p.27; Cooke and Morgan, 1998, p.82; cf. MacLeod, 2000). Finally, it is rather ill-fated to urge regions to embark on a project of building their own competitive advantages (Porter, 1998; Storper, 1997a; Cooke and Morgan, 1998; Cooke, 2002; Amin and Thrift, 1994a) while it is clear that the competitive battle will have its 'winners and losers' (Hudson, 1999, p.69; Hudson et al., 1997; see also Dunford, 1994).

On the basis of such discrepancies and the weaknesses discussed earlier in this section, it is hard to disagree with the critics that the 'learning region' provides inadequate theoretical understanding of uneven development (Lovering, 1999; Smith et al., 1999) and offers doubtful strategem to overcome it (Lovering, 1999; Hudson, 1999; Amin and Tomaney, 1995b). In fact, the lack of theoretical rigour and clarity and the holes in its conceptualisation attract the calls that the 'new regionalist' theory is in fact policy-led (Lovering, 1999) or used as 'political distraction' or an 'ideological smokescreen' (Vigor, 2000). Meanwhile, Martin and Sunley (2001b, p.48) have argued that the 'cluster' concept, central to the 'new regionalist' literature, has been marketed as a *brand* rather than an intellectual product, aiming at enhancing a consultancy profile of one of its main proponents. These disappointing conclusions then only highlight the need to start a search for a more thorough conceptualisation of regional economic processes in the age of the 'knowledge economy'. Such a search, however, must start by deconstructing the way the 'knowledge economy' has been transposed onto the regional scale, this task that will be addressed in the following section.

3.5 Debunking the 'learning region'

The search for an alternative concept of regional development should start by debunking the central argument of the 'learning region' paradigm, namely that *regional learning* (in whatever form) will bring about *regional prosperity* (see ***Figure 3.1 and 3.2*** in Appendix). The arguments presented in the previous section pointed to the limits of such a process but the thrust of the argument has remained largely unchallenged by the critique so far. This section wishes to explore that lacuna to argue that the assumption on which the 'learning region' is built is wanting. Indeed the assumption that regional learning creates regional prosperity, only replicates the central flaw of the 'knowledge economy' concept (knowledge creates wealth). In particular such a formula ignores the cost of *learning*, thus denying the possibility of the reversed causality between knowledge and wealth. It also neglects the role of power in the equation and discounts the possibility that knowledge, wealth and power may be engaged in a circular and cumulative causation process (see Chapter 2). Moreover, by re-scaling the 'knowledge-driven prosperity' formula down onto the regional level, the 'new regionalist' literature further obscures the sources of economic success by abstracting the 'learning region' away from the inter-regional interconnectedness and the workings of the wider political economy more broadly.

Such basic omissions have fundamental implications for the conceptualisation of regional development (Sokol and Tomaney, 2001). Indeed, the acknowledgement of the reversed causality turns the logic of the 'learning region' concept upside down and opens the following dilemma: are regions economically successful because they are knowledge-intensive, or are they knowledge-intensive thanks to the fact that they are economically successful? Such a dilemma can be resolved at least at an abstract level by acknowledging the possibility of the mutually reinforcing process between knowledge and wealth, i.e. through increasing returns from investment in the knowledge-base (see Chapter 2). However, a much more complicated picture emerges when such the possibility is considered at the regional level. Indeed, placing the region back into the context of the wider political economy results in a much more complex picture of flows of knowledge and wealth with ambivalent implications for regional prosperity (see ***Figure 3.3*** in Appendix). The acknowledgement of the circular and cumulative causation process between knowledge, wealth and power in a socio-economic system and its introduction into a spatial context, have further implications for an alternative conceptualisation of the space-economy. The principles of the circular and cumulative causation process in the spatial context are well known (Myrdal, 1957; Kaldor, 1970). Complemented by inserting the categories of knowledge and power into the equation, the following picture of polarising space-economic processes could emerge.

On the one side of the process, one would find economically successful regions that have resources to invest in quality education and costly research and development (R&D) activities. Innovations emerging from such investment can be turned into profits and these re-invested back into the regional 'knowledge-base' and its infrastructure, resulting in 'cumulative learning' (cf. Maskell *et al.,* 1998, p.184; Landabaso, 2000, p.83) attracting further investment and skilled workers and creating a possible 'virtuous circle' scenario (see also Malecki, 2002, p.931; Thwaites and Oakey, 1985b, p.6). Indeed, such regions are often described as 'magnets' (Malecki, 2000, p.119, Castells and Hall, 1994, p.26) or 'sticky places' (Markusen, 1999b) for both capital and labour and can be considered as regional 'winners' (Dunford, 1994; see also Hudson et al., 1997). 'Winners' are usually close to international transport hubs (Simmie, 2002a) and well endowed by information and communication infrastructure (Graham and Marvin, 1996, 2001) benefiting the most from the 'information revolution' (see also Thwaites and Oakey, 1985b, p.2-3; Goddard et al.1985). However, building on previous rounds of long-term investment, such agglomerations of high-value 'knowledge-sub-economies' (seen by some as 'learning regions') tend be found in the most-advanced countries (cf. Benko, 1991), often within or close to established economic 'hotspots' such as large metropolitan areas (Castells and Hall, 1994; Castells, 1996, p.390; see also Simmie, 2001; Simmie, 2002a, 2002b, 2002c; Simmie et al., 2002). Such economic 'hotspots' represent vibrant markets further stimulating demand for innovation (cf. Schmookler, 1966). Economic prosperity resulting from their 'cumulative advantage' creates potential for more equitable distribution of income (although this is by no means an automatic process – see Sassen, 2001; inter alia). Meanwhile, the rise of an economic power may be accompanied by a build-up of the institutional/power base and political influence of a given region (cf. Markusen, 1999a, p.877).

On the adverse side of the circular and cumulative causation process, however, are less favoured regions that can be trapped in a 'vicious circle', stripped of both investment and talented 'knowledge workers'. Due to the adverse side of the 'cherry picking', such regions are usually less endowed by the modern communication infrastructure (Graham and Marvin, 1996; 2001) or emerge as 'off-line' (Robins and Gillespie, 1992) or 'switched-off' territories (Castells, 1996; see also Gillespie, 1991; Richardson and Gillespie, 2000; Gillespie et al., 2001). Such regions seem to lack both 'hard' and 'soft' networks for competitiveness (cf. Malecki, 2002) and their innovation effort risks to be 'like trying to fertilise a small field when the wind is blowing' (Maskell *et al.,* 1998, p.87) as the benefits of such an exercise are absorbed by more prosperous competitors (see also Thwaites and Oakey, 1985b, p.3). Amid a disintegrating economic and social structure, these regions usually suffer from above-average levels of unemployment and below-average wages, attracting low value-added production only, thus pushing a region further away from a 'high-road' development path. Development trajectories of such regions are thus curbed by their own historical legacies (see below) as well as the current wider political economy (Amin and Tomaney, 1995b). Indeed, less favoured regions face competition from other regions, while being affected by the power and mobility of global capital, the constraints of national, supra-national and global regulatory bodies, and power(lessness) and (im)mobility of labour (Sokol and Tomaney, 2001). In addition to economic subordination, LFRs may find their institutional structures being eroded and their influence on power fading away, compounding their 'cumulative disadvantage'.

The above picture of regional development is inevitably a caricature, a rough sketch and gross oversimplification of processes occurring in the real space-economy. For instance, it portrays less favoured regions merely as victims of market forces and the wider political economy, while overlooking the possibility that the nation-state or wider political economy may provide development incentives for such regions[17]. It also discounts the possibility that regions themselves through their institutions may actively seek to counter their deteriorating economic situation and to reassert their position on the terrain of power. Finally it implies a dualism of 'successful' and 'unsuccessful' regions and creates an impression of a 'black and white' picture, while overlooking a colourful mosaic of uneven development *between* regions and neglecting socio-economic divisions *within* regions (both advanced and less favoured ones).

Nevertheless, the picture firmly situates regional economies within the context of processes in which the logic of the 'learning region' concept disintegrates (see also Amin and Tomaney, 1995b, p.31-32). Within such a context, regions are seen as being part of wider underlying economic processes and particular historical legacies, which in turn raises several important issues especially in relation to less favoured regions and their chances to create sustainable economic trajectories. Indeed, it is doubtful whether in such context it is possible to consider regional prosperity as a matter of regional choice. It is questionable whether less favoured regions can 'learn' new 'high road' development trajectories within the given underlying flows of capital, labour and knowledge. Subsequently the relative significance of action on the regional level vis-à-vis constraints of the wider political economy needs to be questioned. Finally, and more specifically, the room for manoeuvre of regional institutions such as regional development agencies (*animateurs*) needs to be critically scrutinised. The significance of these issues is further highlighted when regions are placed in the context of 'socio-spatial divisions of labour' and 'socio-spatial value chains' that will emerge as important elements of an alternative conceptualisation discussed below.

[17] Myrdal (1957) himself argued that 'spread' effects may provide a (limited) counterbalance to 'backwash' effects.

3.6 Towards an alternative conceptualisation

The purpose of this section is to sketch out elements on which an alternative conceptualisation of regional development could be based. Such an alternative, it is argued here, has to go back to 'big questions' of inequality, polarisation and uneven development, as recently emphasised by Martin and Sunley (2001a, p.156) and Perrons (2000, p.2). In doing so, the section will point to the role of the 'socio-spatial divisions of labour' and 'socio-spatial flows of value' (introduced in Chapter 2) and highlight their potential in accounting for uneven forms of economic development, both social and spatial. As already argued in Chapter 2, there is mounting evidence that social and spatial inequalities are growing at the global scale and these are accompanied by inequalities at national and regional levels (see also Chapters 4, 6 and 7 of this thesis). However, as demonstrated in this Chapter, 'new regionalist' literature offers only a limited grasp of current economic processes and of emerging inequalities that accompany the alleged rise of the 'knowledge-driven economy'. Thus, there is an urgent need to provide an alternative framework for understanding these inequalities. This section will outline such a framework, building on the strengths of evolutionary/institutional insights and more radical approaches in economic geography. The section will first, briefly, revisit the question of a definition of the region and regional institutions, and subsequently argue for a need to situate the region within the context of a wider profit-driven political economy and long-term historical legacies. Finally, building on the notions introduced in Chapter 2, it will emphasise the usefulness of the 'socio-spatial divisions of labour' and 'socio-spatial value chains' (or value networks) in the analysis of uneven regional development.

The process of building elements for an alternative framework has to start by addressing the basic definitional deficiencies shown by the 'new regionalist' literature. In particular, there is a need to define more thoroughly the concept of the *region*. Echoing the arguments developed in Chapter 2, the starting point of such conceptualisation is the acknowledgement that the economy is an *institutionalised social process*, in which institutions are at the same time object, subjects and outcomes of social struggles over wealth, power and knowledge. A step further in such a conceptualisation would be to argue that *region* is an institution emerging from, and being part of, economic, cultural and political struggles at certain geographical scales. Thus, extending a recent 'evolutionary' definition of a region as being a 'negotiated *outcome* of a process' which produces a particular collective social order (Cooke and Morgan, 1998, p.64, emphasis added), the definition proposed here see the region as both *outcome, object* and *subject* of social struggles in a given territorial context (cf. Allen et al., 1998). The notion of the 'territorial context' deserves further examination, but we limit ourselves here to an understanding of the *regional* territorial context as relating to the *sub-national* scale, while recognising the ambiguity and fluidity of such a description[18]. Subsequently, *regional institutions* could be defined as being constituent parts of a region, themselves emerging from particular social struggles and embedded in wider institutional contexts.

Defining the region (and its institutions) as being an outcome as much as an object and subject of social struggles creates room for thinking of region (or regional state) as a potentially *active participant* of the institutionalised social process here referred to as socio-economy or political economy. At the same time, however, such conceptualisation recognises the need to situate the region within wider processes that impinge upon its fortunes and place constraints on local action. Moreover, there is a need to situate the region not only with respect to its own 'internal' struggles, but also within the context of 'external' struggles, that a region and/or its institutions may engage in vis-à-vis various other levels of the state (local, national or supranational), different fractions of capital and/or labour. Besides, regions or region-states may be engaged in competition with other regions. In the profit-driven economy, it seems that the major battle is being waged around wealth or profit (see Chapter 2). It is argued here, that the two major factors that influence the success of the region in the profit-driven struggles relates to its own historical legacies and its position within the wider political economy. The historical legacies refer to both 'hard' legacies - economic and political structures inherited from previous phases of development (or decline), as well as 'soft' socio-cultural and institutional legacies. It is of critical importance how these historical legacies, sedimented through centuries, interact with the imperatives of the current wider political economy and to what extent the region-state can impact

[18] For instance, as demonstrated by the case studies in this thesis (Chapters 6 and 7), regions may become region-states or even nation-states (or vice-versa) through the social struggles they are part of.

on such processes. The underlying determinant of economic success is the way the region and its institutions, including capital and labour, are inserted into wider *divisions of labour* and *flows of value* to which we now turn.

The division of labour is judged 'a universal characteristic of human social life' (Rueschemeyer, 1986, p.2) as a process underlying a shift towards more complex social structures. In the capitalist economy, the division of labour is a necessary condition for commodity production and the operation of the market, while being a product of particular economic and social relations (Bottomore, 1991, p.153-156). Such a division of labour within society encompasses two dimensions; the division of labour within production under the direct control of capital, and divisions of labour within wider society and between different fractions of capital or private producers (ibid, p.154). However, as the world does not exist 'on the head of a pin' (Massey, 1995, p.51) the *social* division of labour always involves the *spatial* dimension. Such '*spatial* divisions of labour' have been examined in the national (Massey, 1984, 1995) as well as international contexts[19] (Henderson, 1989; Lipietz, 1986; see also Johnston, 1986; Castells, 1993, 1996; Dicken, 1998). The acknowledgement of both social *and* spatial aspects of such divisions of labour, however, lead us to consider the use of the notion of the '*socio-spatial* divisions of labour' as being more appropriate. In Chapter 2 such 'socio-spatial divisions of labour' have been tentatively defined as the way production is organised between and within capital, labour and the state, while seen as part of a stretching the social relations of capitalism over *space* (Harvey, 1999; Massey, 1984, 1995; see also Sayer and Walker, 1992; Jessop, 2000).

The crucial feature of such relations, however, is not the divisions of labour of labour *per se*, but the way *value* is appropriated and distributed between and within institutional actors of the political economy on the back of such 'divisions of labour'. In other words, it is the *flow of value*, both within society and between territories that underpins uneven economic development. A significant recent contribution on the topic has been offered by Smith, Rainnie, Dunford, Hardy, Hudson and Sadler (2002).

Besides, it could be argued that the territorial *extent* of regions is in itself can be a matter of struggles and contestation as much as it is in the case of nation-states (see Storey, 2001).

[19] It is worth noting that the concept of 'spatial divisions of labour' itself has been subject to debates (cf. Warde, 1985, and Massey, 1995, chap.8).

Starting with a critical evaluation of the concept of 'global commodity chains' (Gereffi and Korzeniewicz, 1994) defined as 'sets of interorganizational networks clustered around one commodity or product, linking households, enterprises, and states to one another within the world-economy' (Gereffi et al., 1994, p.2), Smith et al. (2002) have proposed the following way of looking at economic relations within the global economy. First, they argue that it is not the 'commodity' *per se*, but the *value* the commodity embodies that should provide a central focus of economic geography analysis. Second, they contend that instead of a linear notion of 'chains', it is more appropriate to see commodity and value production as being organised in 'networks'. Third, subsequently, they suggest that the dualistic distinction between 'producer-driven' and 'buyer-driven' chains implied in the 'global commodity chain' literature (Gereffi, 1994) should be abandoned in favour of conceptualisation that would emphasise *dynamics* and *fluidity* of economic processes. Fourth, Smith et al. (2002) adopt a much more sophisticated theorisation of the *spatial* dimension of the economic processes of value creation and distribution, while recognising a dialectical relationship between the *flows of value* and their national, regional and local contexts (ibid, p.50). Last, but not least, in contrast to the 'global commodity chain' school, Smith et al. put the state and labour firmly on the analytical agenda and call for 'more systematic analysis of the relations between capital, the state and labour in the production, circulation and realisation of commodities' (ibid, p.47-48). They conclude that it is

> 'the organization of the production, appropriation and realization of value flows and the various forces that impinge upon this process – state governance, labour organization, corporate practices and so on – that are fundamental to understanding the (re)configuration of economic activity in increasingly integrated macro-regional economies' (Smith et al., 2002, p.42-43).

Adrian Smith and his colleagues also offer cogent empirical evidence through which they 'operationalise' their theoretical construction. The cases evoked include examples of emerging value networks within the 'New Europe' (see also Chapter 4) highlighting differentials of *power* and *value* between economic actors situated in particular sectors in particular places (ibid, p.58). Consequently, it is the prism of uneven governance of *flows of value* that 'potentially allows for an understanding of *which actors* and *which places* benefit from or lose out from such flows' (ibid, p.54, emphasis orig.). Thus, the conceptualisation involving the 'flows of value' or 'value networks' perspective seems to provide a solid basis on which an alternative framework for an understanding of uneven regional development could be built. The following points, however, could be considered in addition to those raised by Smith et al. (2002).

First, there is a need to more readily integrate *knowledge* into the analysis of the process of value creation and distribution, alongside *power* and *wealth* (cf. Chapter 2). It is important to recognise that beyond *knowledge* needed for the commodity production (cf. Smith et al., 2002, p.57-58), *knowledge* itself can take a form of a commodity and thus directly partake in the flows of value. Social and/or spatial transfer of value in the form of knowledge can be a significant element of uneven economic processes. It can take various forms, starting with a 'simple' appropriation of the fruits of intellectual work via Intellectual Property Rights (see Chapter 2) ending with inter-regional and international migration processes of 'knowledge workers', 'brain draining' certain regions while contributing to the success of the others. Second, it is important to recognise the potentially cumulative nature of *flows of value*, and that a mutual reinforcement of power, wealth and knowledge of certain economic actors and places (regions) may compound social and spatial inequalities. Knowledge (in a variety of its forms) can partake in this process contributing to the emergence of 'knowledge-intensive agglomerations'. Such 'knowledge-intensive agglomerations' (seen by some as learning regions) thus can be seen as manifesting growing 'socio-spatial divisions of labour' and uneven distribution of value through 'socio-spatial value chains/networks' (cf. Chapter 2). Third, besides uneven appropriation of value through the commodity *production* process, attention should also be given to transfers of value through commodity *exchange*. Indeed, under capitalist social relations, despite the appearance of equal exchange, market exchange of commodities can in itself be source of unequal distribution of value.

Fourth, it would be useful to extend the analysis of *value chains/networks* within and between parts of 'production' and 'post-production' capital to one that would take into account the *value flows* between 'productive capital' and 'financial capital'. In addition, such analysis should also include the relations of power and flows of value between the financial capital and the state, while examining the implications these relations might have for regions (such as availability of credit, squeeze on public expenditure, reduced investment in education, industrial or regional policy, etc.) and labour (intensification of labour process, pressure on wages in the public sector) (cf. Johnston, 1986; Fisher, 2001). Furthermore, such analysis should show more detailed appreciation of emerging organisations of global governance (WTO, IMF, WB, etc.) that seem to have appeared as an institutional category in their own right (alongside various forms of capital, labour and state). Finally, it would be useful to extend the theorisation of 'value chains/networks' to include the dimension of time. Indeed, there would seem to be a basis for consideration of social relations of value that do not stretch only over *space* but also over *time*[20] (Harvey, 1985, 1999; Jessop, 2000). This would open up the possibility for consideration of 'socio-spatial-temporal flows of value', to capture the way value is produced, appropriated, transferred or destroyed within society, and over space and time.

However, even without these additional points, the approach taken by Smith et al. (2002) seems to be the best suited for understanding uneven regional development and economic geography processes more widely. Importantly, it recognises the fact that regions are, directly or indirectly, interconnected with each other through wider relations of value and divisions of labour, with fundamental implications for people and places, producing a mosaic of inequality between and within regions. With this insight in mind, we now approach the conclusions for this Chapter.

3.7 Conclusion

The aim of this Chapter was to critically examine the recent concepts found in economic geography associated with the 'new regionalism' (Lovering, 1999). In particular the Chapter focused on the 'learning region' paradigm that is seen by many as the regional dimension of the allegedly emerging 'knowledge economy'. The Chapter first situated the 'learning region' in the context of longer-term search on the part of economic geography to conceptualise the spatial implications of the 'new era'

[20] In this context, if would probably be appropriate to talk about 'socio-spatial-temporal divisions of labour'.

of knowledge, learning and innovation. It then moved on to a detailed examination of the 'learning region' itself. The Chapter argued that despite the lack of a clear definition, it seems that various versions of the 'learning region' concept invariably revolve around the notions of region, learning, knowledge and institutions, echoing a wider cultural and institutional turn in the social sciences. Consequently, successful regions are conceptualised as 'repositories and collectors' of knowledge with significant 'learning' capacity, supported by regionally-based 'entrepreneurial culture', 'social capital', 'untraded interdependencies', collaborative networks and overall 'institutional thickness' (Amin and Thrift, 1994a; Saxenian, 1994; Florida, 1995a; Storper and Scott, 1995; Storper, 1995a, 1997a; Asheim, 1996; Morgan, 1997; Boekema *et al.*, 2000a; inter alia). Less-favoured regions, meanwhile, are encouraged to emulate successful 'learning regions' by mimicking their 'institutional thickness'. Building regional 'animateurs' (Morgan, 1995, 1997, 1998) is considered as part of the process in which economic prosperity becomes a 'matter of choice' (Porter, 1998). Moreover, economic prosperity is expected to be shared by all within the given region (cf. Storper and Scott, 1995; Cooke and Morgan, 1998). Such propositions certainly have their appeal, not least for former industrial regions, where they raise hopes for economic and social 'renewal' and enhance the impression that such regions can themselves 'learn' new economic trajectories and promote their own 'high road' development.

The detailed analysis undertaken in this Chapter points to a much more complicated picture of the regional problem. Indeed, the 'learning region' concept itself and 'new regionalism' more widely has been subjected to serious criticisms (Hudson, 1999; Lovering, 1999; Markusen, 1999a; Smith et al., 1999; Martin and Sunley, 2001a; MacKinnon et al., 2002; inter alia). These criticisms highlight problems with the basic terms and definitions (including the notions of region, knowledge, learning and institution), overall fuzzy conceptualisation, the lack of empirical evidence and, finally, limited policy relevance, especially with respect to less favoured regions.

The Chapter moved on to address the lacuna unexplored by the critique so far and examined the central argument of the 'learning region' concept, which is that *regional learning* brings about *regional prosperity.* Such an assumption was found wanting, not least because it only replicates the central flaw of the 'knowledge economy' concept (see Chapter 2). The attempt to transpose a 'knowledge-driven economy' formula on to the *regional* scale, meanwhile, produces additional conceptual problems that render the 'learning region' paradigm inadequate. A fundamental question that arises whether or not regions are economically successful *because* they are knowledge-intensive, or whether they are knowledge-intensive thanks to the fact that they are economically successful; and to what extent their success depend on conditions found in the wider political economy.

The Chapter argued that an attempt to answer these question has to start with the acknowledgement of growing 'divisions of labour', accompanying 'value chains' (or 'value networks') and their spatial implications. Building on the conceptualisation of the current political economy presented earlier in Chapter 2, this Chapter supported the view that pockets of high-value knowledge-sub-economies can indeed be observed (seen by some as 'learning regions'). These, however, can only be found in the most-advanced countries, often within established economic 'hotspots'. Here, knowledge (and power) seems to function as yet another factor behind the circular and cumulative causation process. The striking feature of this process is that, with a handful of exceptions, it reinforces existing patterns of inequality. The effects of the 'circular and cumulative causation' process are well known (Myrdal, 1957; Kaldor, 1970). Extended to cover the circulation and accumulation of knowledge in a spatial context, this means that economically successful regions have resources to invest in quality education, training and costly research and development activities. The resulting innovations can be turned into profits and these re-invested back into the regional 'knowledge-base', attracting further investment and skilled workers and creating a possible 'virtuous circle' scenario. This can be accompanied by a build-up of their power base or political influence. Regional economic success potentially opens the way for a more socially cohesive pattern of development, although sharing regional prosperity is by no means automatic[21].

On the adverse side of the process, however, less-favoured regions (LFRs) can be trapped in a 'vicious circle', stripped of both investment and 'knowledge workers'. Their development trajectories are curbed by their own historical legacies ('soft'

[21] Indeed, many economic leaders, be it regions or cities, display striking patterns of social inequality (Castells and Hall, 1994; Castells, 1996; Sassen, 2001; inter alia).

cultural, but also 'hard' structural), as well as the current wider political economy. Indeed, LFRs simultaneously face competition from other regions, while being affected by the power and mobility of global capital, the constraints of national, supra-national and global bodies, and the power(lessness) and (im)mobility of labour. As a combined effect of these forces, LFRs are being integrated into the wider political economy through particular 'socio-spatial divisions of labour' and 'value chains/networks'. In addition to economic subordination, such regions may find their power influence being eroded.

It could be argued that such a conceptualisation is itself a simplification. It nevertheless raises the question of how much room for manoeuvre there remains for less favoured regions to actively change their position within underlying flows of knowledge, value and power. It is clear that regional actors do not necessarily sit idle vis-à-vis the economic challenges their respective regions face. However, the issue is how significant their actions are at the regional level, and what importance can be ascribed to the role of specialised economic development agencies operating within regions. Answers to these questions must begin by acknowledging that regions themselves are institutions and thus they are subjects, objects and outcomes of wider socio-economic struggles. This is also true for specific economic development institutions like regional development agencies, which are expected to act as 'animateurs' for their respective regional economies. Furthermore, the institutional power of these agencies has to be measured against the power of the wider political economy and the weight of the historical legacies of the regions in question. Thus, it could be argued that the room for manoeuvre of such regional institutions is limited.

This issue is further highlighted when considered in the light of the 'socio-spatial divisions of labour' and 'socio-spatial value chains/networks' through which economic actors and regions are structurally interconnected. In particular, the Chapter emphasised the usefulness of the concept of the 'value chains' or 'value networks' (Smith et al., 2002) as a platform on which an alternative conceptualisation of uneven regional development can built. The pattern of uneven development and the constraints that regions are facing will be now examined in the following Chapter 4, focusing on regional economic trajectories in the 'New Europe', with particular reference to its 'Eastern' half.

Chapter 4:

The regional dimensions of post-socialist transformations in the 'New Europe'

4.1 Introduction

As emphasised in the introductory Chapter 1, this thesis is concerned with the prospects for less favoured regions in Europe, in the context of the allegedly rising 'knowledge economy' and following the collapse of state-socialism. So far, the thesis has examined the concepts postulating the rise of the 'knowledge economy' (Chapter 2) and their regional dimensions (Chapter 3) in the context of the advanced Western capitalist countries. The present Chapter 4 moves the analytical focus towards the fall of state-socialism and its regional dimensions in the context of the 'New Europe', while giving a particular emphasis to regional processes in its Eastern half[1]. Arguably, the sudden collapse of state-socialism in Eastern Europe in the late 1980s and early 1990s had profound implications for the whole continent, granting the term 'New Europe' (previously used in association with the deepening integration processes in Western Europe) a new meaning. In particular, the dramatic change in Eastern Europe raised hopes that following the decades of the Cold War confrontation between two irreconcilable political, economic, military and ideological blocks, Europe could be turned into a zone of co-operation, peace, stability and prosperity, creating an opportunity for the unification of the divided continent. Such prospects were especially welcomed by the peoples of Central and Eastern Europe itself, embarking on the 'transition' from state-socialism to liberal-capitalist democracy and the market economy. The political side of 'transition' was fuelled by ideals of liberal democracy, freedom and 'civic society', while 'economic transition' was accompanied by a widespread popular belief that the introduction of a market economy via neo-liberal 'shock therapy' would lead to a quick and smooth closure of the wealth gap with the West.

A decade later, however, the dreams are over as rather different picture has emerged. Indeed, underneath the slogans of integration and unification, the emerging 'New Europe' (Pinder, 1998) seems to be marked by growing economic, political and social fragmentation (Hudson and Williams, 1999; Dunford and Smith, 2000; Hadjimichalis and Sadler, 1995; Bachtler et al., 2000a; inter alia; see also Gorzelak and Jalowiecki, 2002). The decade following the fall of the Iron Curtain in Europe has been characterised by a disturbing divergence of economic fortunes between its Western and Eastern halves and spectacular social and regional fragmentation within the East itself. Clearly, many regions in Eastern Europe have emerged as the 'least-favoured regions' (Smith and Swain, 1998, p.47) of the continent. Such disappointing patterns on the space-economic landscape of the 'New Europe', that seems to be continuously committed to the ideals of social and regional cohesion, call for a thorough examination of the processes involved. This Chapter will try to approach the task in the following steps.

Initially, section 4.2 will re-open the debate about the causes of the collapse to the state-socialist regimes in Eastern Europe. In doing so, the section will point to the fact that profound disagreements can be found in the literature on the subject. Although it continues to be debated there seems to be a growing consensus among heterodox economists (Stiglitz, 1994; Lundvall and Johnson, 1994; Hodgson, 1999) and social scientists (Castells, 1996, 1998; but see also Bell, 1973) that the causes of the collapse of state-socialism should be seen in conjunction with the rise of the 'knowledge economy'. Indeed, as already indicated in Chapter 2, the literature seems to be pointing to the difficulties state-socialism has in coping with the allegedly emergent 'knowledge economy' or 'post-industrial society'. One of the clearest statements on the subject has come from Castells (1996, 1998) who sees the demise of 'industrial

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[1] Parts of this Chapter were previously published in volume 35 of Regional Studies (see Sokol, 2001).

statism' in the USSR as a consequence of its inability to embrace the 'informational mode' of production. Building on the conceptual tools developed in Chapters 2 and 3, section 4.2 will subject such a proposition to critical examination, from which an alternative hypothesis will emerge.

The Chapter will then shift attention from theoretical hypothesising to the reality of policy discourse in post-socialist Eastern Europe. Strongly associated with neo-liberal orthodoxy, the dominant discourses attempt to explain the fall of state-socialism in the light of the inability of the state to provide effective allocation of economic resources. Consequently, by promoting a 'transitional' agenda, neo-liberals have invariably advocated the dissociation of the state and economy, and the introduction of free market forces as a vehicle for economic rejuvenation in Central and Eastern Europe. Section 4.3 will briefly revisit the neo-liberal 'transitional' project and point to its devastating social and economic outcomes. Subsequently, the economic geography of these outcomes will be highlighted in section 4.4 . It will be argued that divergence rather than convergence can be observed on the socio-economic landscape of the 'New Europe'. The scope of uneven development is increasingly recognised by policy-makers and academics alike, but the understanding of its causes seems often to be clouded by confusion. Section 4.5 will thus present competing accounts of uneven development in post-socialist Europe, ranging from neo-liberal to institutional and more radical insights. The section will argue that the dominant neo-liberal approach falls short of explaining emerging (macro)regional divisions and that an alternative conceptualization of uneven development in Central and Eastern Europe could be constructed on the strengths of institutional and radical approaches. Section 4.6 will then move on in the direction of outlining such an alternative. Building on the insights developed earlier in Chapters 2 and 3, it will be argued that the alternative approach should place at the heart of its analysis *historical legacies* and the way they interact with, and are exposed to, the *international political economy.* Seen through such an alternative prism, Central and Eastern Europe is emerging as the 'super-periphery' of the 'New Europe' amid struggles over 'socio-spatial value chains/networks' and the reworking of old 'socio-spatial divisions of labour'. Within such a framework, the opportunity for regions to 'choose' their economic trajectories seems to be rather limited. Finally, section 4.7 will distil conclusions and point to the implications these may have for the rest of the thesis.

4.2 The 'knowledge economy' and the collapse of state-socialism

The fall of state-socialism was, arguably, one of the most significant events at the end of the twentieth century[2] (cf. Fukuyama, 1992; Castells, 1998, p.338). Despite its widely accepted significance, however, the understanding of the causes of the demise of state-socialist regimes in Central and Eastern Europe seems to be somewhat limited. The literature on the topic displays profound disagreements on very fundamental points. Thus for Marxist writers, the fall of state-socialism was by and large inflicted from within due to its internal contradictions of social relations (see Clarke, 1993a, 1993b); in other words, state-socialism was not socialist enough. Conversely, for liberals, state-socialism collapsed because of the very opposite reason – it was too socialist, with strong in-built rigidities and inefficiencies and a lack of dynamic market forces (see Kornai, 1992; Sachs, 1990). Indeed, for Fukuyama (1992) the demise of the Soviet block represents the ultimate victory of liberal capitalism over socialism. However, an alternative hypothesis is that the fall of state-socialism is less to do with the crisis of *socialism* as such and more to do with the crisis of the *state* (Clarke, 1990).

Several heterodox economists (Stiglitz, 1994; Lundvall and Johnson, 1994; Hodgson, 1999) and social scientists (Castells, 1996, 1998; but see also Bell, 1973) seem to approach the issue from yet a different angle. Although displaying important differences in detail, they all seem to converge on the key role of knowledge and information in economic systems and emphasise the inability of state-socialism to cope with the apparently increasing importance of knowledge and information (in its various forms). Thus for Bell (1973), state-socialist countries would face increasing pressures when emerging from the challenges of the 'post-industrial' or 'knowledge society'. In fact, as suggested by Bell (1973), basic postulates on which socialism is based, such as the leading role of working industrial class, seem to be disintegrating with the rise of the post-industrial society, as knowledge and science are claimed as becoming the leading factors of production (cf. Chapter 2). More recently, economists

[2] Following Smith (1998, p. 36, note 4) the use of term 'state-socialism' is preferred in this thesis to alternative terms such as 'socialism', 'communist system', 'Soviet communism', 'state capitalism', 'totalitarian system', 'Stalinist system', etc.

(Stiglitz, 1994; Hodgson, 1999; Lundvall and Johnson, 1994) have been pointing at fundamental weaknesses of state-socialism in terms of knowledge distribution, knowledge creation, learning and/or innovation. Stiglitz (1994) has argued that the socialist planning mechanism hampers an efficient distribution of information and knowledge through the economic system. In a similar vein, Hodgson (1999) has suggested that socialism based on central planning has a poor chance of survival because it eliminates diversity and lacks the ability to learn and innovate (ibid, p.15-61; see also Hodgson, 1998b). For Hodgson, 'no complex socio-economic system can survive and develop without structural economic variety and genuine markets' (Hodgson, 1999, p.16-17). Hodgson thus contends that the theoretical arguments of socialists in favour of a collectively planned economy are 'deeply flawed' (ibid, p.16) and that '*if* socialism is to be rescued from its theoretical and practical failures, then it *has to be* both a mixed economy and "market socialism" in some genuine sense' (ibid, p.17). Echoing this view, Lundvall and Johnson (1994) have suggested that the successful 'learning economy' is a 'mixed economy, in the fundamental sense of the term' (ibid, p.33). Indeed, as shown in Chapter 2, Lundvall and Johnson (1994) maintain that learning, the critical economic process, is an *interactive* process affected by the institutional set-up of the economy. In their view, both *pure markets* and *pure hierarchies* represent institutional arrangements that are hostile to innovation (ibid, p.34-35). They argue that 'pure hierarchy is too restricted and simple to constitute the main substance in complicated interactive learning processes' (ibid, p.35) and that subsequently, hierarchical organisational forms can be 'effective innovation brakes' (ibid, p.35). Lundvall and Johnson make it clear that the centrally planned economy 'can be thought of as a hierarchy of hierarchies' (ibid, p.35), implying the strong inability of state-socialist economies to innovate (see also Gomulka, 1986).

This theme has been further developed by Castells (1996, 1998) while considering the case of the USSR that was arguably at the epicentre of the state-socialist collapse. He places the demise of 'industrial statism' in the Soviet Union into the context of the emergent 'information society' (cf. Chapter 2). In doing so, Castells provides us with perhaps the strongest statements on the interconnectedness between the rise of the 'knowledge economy' in the West and the fall of state-socialism in the East, deserving a closer examination. The central thesis of Castells (1998) is that the crisis of the Soviet economy from the mid-1970s onwards, eventually leading to the collapse in the early 1990s, 'was the expression of the structural inability of statism and the Soviet variant of industrialism to ensure the transition towards the information society' (ibid, p.7). In a way this inability represents a certain paradox, because as Castells (1998) himself admits, the Soviet Union dedicated 'vast resources' to science and research and development (R&D) (ibid, p.19; see also EC, 1997a) and had a 'higher proportion of scientists and engineers in the working population than any other major country in the world' (Castells, 1998, p.19; see also Nove, 1969). But for Castells (1998) it was the very character of the Soviet 'industrial statism' and its structural incompatibility with the rising informationalism that were decisive. By *statism* Castells means a social system oriented towards 'power-maximizing', as opposed to *capitalism*, oriented towards 'profit-maximizing' (ibid, p.7). By *industrialism*, he means 'a mode of development in which the main sources of productivity are the quantitative increase of the factors of production (labour, capital, and natural resources), together with the use of new sources of energy' (ibid, p.7). Conversely, *informationalism* is 'a mode of development in which the main source of productivity is the qualitative capacity to optimize the combination and use of the factors of production on the basis of knowledge and information' (ibid, p.7; see also Castells, 1996, p.13-18). Somewhat echoing Bell (1973), Castells (1998) contends that the Soviet economic system proved to be a useful tool for rapid (extensive) industrialisation (cf. ibid, p.9-10) but hopelessly inefficient in embracing more sophisticated informational modes of development. Castells argues that the reasons for such inability lie not so much with the state *per se*, but with a particular form of statism as a power-maximizing social system.

To support his thesis Castells provides rich empirical material to argue that the Soviet economy was heavily biased towards 'military industrial production, since military might was the ultimate purpose of the regime and the cornerstone of statism' (ibid, p.14). Thus, 'perhaps the most devastating weakness of the Soviet economy was precisely what was the strength of the Soviet state: an overextended military-industrial complex and an unsustainable defence budget' (ibid, p.21). In the 1980s, the defence budget was apparently reaching 15 percent of the Soviet gross national product (GNP) with some estimates putting it at an even higher level, at about 20-25 percent of GNP (ibid, p.21-22; see also Nove, 1969, p.319). About 40 percent of industrial production was defence related, and the production of enterprises that were engaged in the military-industrial complex reached about 70 of all industrial production (Castells, 1998, p.22). Enterprises participating in this gigantic military industry

> 'concentrated the best talent in scientists, engineers, and skilled workers, and were also provided with the best machinery, and access to technological resources. They had their own research centres, the most technologically advanced in the country, and they had priority in the allocation of import quotas. Thus, they absorbed the best of Soviet industrial, human, and technological potential' (ibid, p.22; see also ibid, p.28).

Unfortunately, the technological achievements of the military-industrial complex, in part because of security reasons (ibid, p.28), never reached the civilian economy. This was accompanied by an overall poor ability to link an excellent scientific base with innovation in production[3] (ibid, p.32). For the latter failure, Castells (1998) points the finger of blame at the bureaucratic decision-making machinery, the overall rigidity of the planning mechanism and ideological barriers in the USSR. In particular, strict vertical institutional separation between scientific institutes and enterprises imposed by the logic of the command economy, 'forbade the process of "learning by doing" that was critical in fostering technological innovation in the West' (ibid, p.32). Thus neither Zelenograd ('Soviet Silicon Valley' near Moscow; ibid, p.26), nor the science city of Akademgorodok near Novosibirsk in Siberia (ibid, p.33-34) seem to have made a major impact on the economy and stand as examples of the 'fundamental inability of the centrally planned economy to accommodate processes of rapid technological innovation' (ibid, p.33). Castells argues that due to the combination of the above factors, the Soviet Union 'missed the revolution in information technologies' (ibid, p.26), 'provoking technological retardation precisely at the critical moment of a major paradigm shift in the rest of the world' (ibid, p.27). For Castells, the retardation in the diffusion of information technology had critical ramifications and negative cumulative effects, because it prevented 'the process of spontaneous innovation by use and networked interaction which characterizes the information technology paradigm' (ibid, p.36). Castells concludes that

[3] The link between science and innovation is elsewhere identified by Castells as a critical process for economic development (see Castells and Hall, 1994).

> 'at the core of the technological crisis of the Soviet Union lies the fundamental logic of the statist system: overwhelming priority given to military power; political-ideological control of information by the state; the bureaucratic principles of the centrally planned economy; isolation from the rest of the world; and an inability to modernize some segments of the economy and society technologically without modifying the whole system in which such elements interact with each other' (ibid, p.36).

For Castells (1998) the Soviet Union proved 'incapable of assimilating informationalism, thus stalling economic growth and decisively weakening its military machine, the ultimate source of power in a statist regime' (ibid, p.337). Castells further argues that Gorbachev's last minute reform aimed at economic restructuring and technological modernisation (ibid, p.37; see also Clarke, 1993b, p.37) was 'so radical that it ultimately led to the disintegration of the Soviet state' [4] (Castells, 1998, p.5). The above account of the Soviet experiment debacle appears plausible, but nevertheless seems to overlook several fundamental points. The consideration of these points opens-up a way for an alternative hypothesis of the fall of state-socialism, for which Castells himself provides valuable ammunition.

First, the argument that the 'Soviet power was not seriously challenged either internationally or domestically' (ibid, p.6) and therefore it is the perverse logic of the Soviet statism itself that is to blame for its own collapse, seems unconvincing. In particular, it belies the reality of the Cold War, and intense political, economic, ideological and military confrontation between the Soviet block (lead by the USSR) and the Western capitalist world (especially the USA). Indeed, Castells himself notes *en passant* that the Soviet Union has been developing in 'a hostile world environment' (ibid, p.18) but he fails to appreciate fully the implications this might have had for its economy. Indeed, one significant dimension of this 'hostile world environment' was that the Soviet economy as a whole did not cease to be subjected to the *law of value* (Clarke, 1993a, 1993b) within the capitalism-dominated international political economy. Unable to compete on international markets with sophisticated products, the

[4] Interestingly, after making a strong case for 'industrial statism' collapsing under the weight of the 'informational mode of development', Castells later on suggests that it was the resurgence of national identities in the multicultural USSR, that 'ultimately destroyed the Soviet state' (1998, p.38).

Soviet Union seems to display structural dependence on exports of raw materials in exchange for 'hard currency' (see Castells, 1998; Clarke, 1993b, p.35) and imports of crucial technology from the West (Castells, 1998, p.31; Clarke, 1993b, p.37). Unfavourable terms of trade with the world economy that emerged in the 1980s (see Clarke, 1993b) precipitated the deepening economic crisis of the Soviet economy. This was further exacerbated by the debt crises of its Third World and CMEA trading partners for whom the Soviet Union was a net creditor. As Clarke (1993b, p.43) has put it, the USSR was 'a victim of the debt crisis at second hand'.

The second dimension of this hostile environment was that since its conception, the Soviet Union had to face immense political, ideological and military pressures (cf. Nove, 1969) from leading capitalist countries. The actions of these countries further hardened the terms of the economic relations described above. Thus, the isolation from the outside world, highlighted by Castells (1998) cannot be seen solely as a result of 'siege mentality' (ibid, p.18) but also as a result of a real siege imposed from the outside world[5]. A further significant element of 'the game' was the military circumscription of the USSR during the Cold War that followed a devastating Second World War[6]. In the light of this, it is difficult to see the Soviet military build-up purely as a matter of the choice, or even the 'ultimate purpose', of Soviet statism (Castells, 1998, p.14). Instead, it could be looked at as a response to the hostile international political situation, a response that was not a 'purpose', but rather an immense burden for the economically fragile Soviet state. Castells is right to point out that the military build-up 'had necessarily to take its toll on the Soviet civilian economy and on its citizens' everyday life' (Castells, 1998, p.22) to argue that the Soviet economy was a victim of the cascading hierarchy of iron priorities:

> 'Agriculture had to be squeezed of its products to subsidize industry and feed cities, and emptied of its labor to provide industrial workers. Consumption goods, housing, and services had to concede priority to capital goods, and to the extraction of raw materials, so that socialism could rapidly be made self-

[5] A good example of this is the embargo on imports of the most advanced Western technology (see Clarke, 1993b, p.37).
[6] See Nove (1969) for an account of the devastating impact of the Second World War on the Soviet economy.

sufficient in all indispensable production lines. Heavy industry itself was put at the service of military industrial production...' [7] (ibid, p.14)

In short, a military complex was 'absorbing most of the creative energy of society' (ibid, p.22). However, Castells fails to imagine that this burden has been largely externally induced. He rightly emphasises that the Soviet defence budget was unsustainable (ibid, p.21) but seems to overlook the possibility that the enforced involvement in the arms race with the USA could have been a part of a strategy to bring communism down economically. The war in Afghanistan is a case in point. Castells (1998) acknowledges that the war 'was taking its toll in human suffering, in political image, and in military pride' (ibid, p.6), but fails to put it in the context of the wider geo-political and military confrontation with the USA that had its significant economic costs. Indeed, Gorbachev himself has admitted (BBC, 1999) that one of the central motives behind *perestroika*, was to ease the international tension to allow the diversion of resources from the military machine to the ailing civilian Soviet economy[8]. Thus, rather than being hit by the impacts of informationalism, it seems more likely that by the 1980s the Soviet economy was stretched to the limits by a combination of the worsening terms of international economic relations and the escalating costs of its arms-race with the USA.

The second fundamental problematic point made by Castells' (1996, 1998) account lies with his use of the concept of 'informationalism' to argue that while 'industrial capitalism' adapted well to the allegedly emerging 'informational' mode of development, 'industrial statism' did not manage the transformation and collapsed. This side of Castells's argument is problematic in several ways. First, as seen in Chapter 2, there are serious doubts whether advanced capitalist economies are really entering a new phase of socio-economic relations, be it 'informationalism', 'post-industrial society' or 'knowledge economy'. Consequently, the use of the 'information society' thesis as one of the key explanatory tools for explaining the fall of state-socialism seems debatable.

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[7] Alec Nove noted somewhere that the paradox of the USSR was that it was able to master nuclear bombs, but unable to supply eggs to shops. In the light of the above Castells' argument, the connection between the two phenomena seems clear.

The rejection of the 'information society' (representing a radically new socio-economic system as portrayed by Castells), however, does not mean to deny technological change, but to argue that the change has to be seen in the context of social relations within which technology is conceived and used (cf. Chapter 2). In other words, the emergence of new technologies, let alone new 'modes of production' is not a 'naturally' emerging process, but a process that is subjected to social struggles. Castells himself admits that the rise of informationalism has been associated with the hardening logic of capitalism (1996, p.19; 1998, p.338). Elsewhere, he acknowledges that technological acceleration in the West was in part provoked by 'Sputnik shock' (1996, p.51) after the USSR demonstrated its own technological capability (1998, p.14). However, Castells fails to integrate these elements into a comprehensive picture. Indeed, an alternative reading of the situation would have to start with the acknowledgement that technological build-up in both the West and East were integral parts of geo-political confrontation between the two superpowers. Indeed, it is a well-known fact that the ICTs on which Castells bases his 'new era' are largely (by-)products of the US military R&D (cf. Chapter 2).

The reason why this technological development led to the 'expansion and rejuvenation of capitalism' (Castells, 1996, p. 19) in the West, while the parallel attempt caused the collapse of socialism in the East, needs further elaboration, going beyond the argumentation offered by Castells. Two alternative lines of argument can be proposed. The first one points at the fact that the playing field for this technological competition was uneven from the outset. As Bell (1973) and Castells (1998) have both noticed, socialist revolutions did not occur in the most advanced capitalist countries as predicted by Marx, but in rather backward and mostly agrarian countries (see also section 4.6 below). Indeed, the Soviet Union itself was described by Castells (1998, p.14) as 'by and large a poor country', whose population at the time of the 1917 Revolution was 84 percent rural. Such a country was up against the most economically advanced industrial capitalist economies of the world. It seems that even the vast natural resources of the USSR could not compensate for the country's overall industrial and technological backwardness in this competition. Thus the amount of resources that the Soviet Union had to commit to defence purposes

[8] Significantly, one of Gorbachev's first steps was to pull out from Afghanistan.

and/or technological development were disproportionately higher than the parallel effort displayed by its enemies, the USA in particular[9]. In other words, in trying to simply keep pace with the armament and technological advances of the USA, the USSR had to dig much deeper into its resources, even at the cost of crippling the civilian economy.

The relative backwardness of the Soviet economy would also go some way to explaining why its excellent scientific knowledge-base built under state-socialism rarely reached civilian production. Castells (1998) is right to point at the bureaucratic decision-making, the rigidities of the planning system that indeed, in certain instances, can act as 'innovation breaks' (Lundvall and Johnson, 1994) compounded by ideological hurdles. However, Castells seems to ignore the immense deficit on the demand side of the Soviet economy. Indeed, following Schmookler (1966), it could be argued that the rate of technological innovation is positively related to *demand* in the economic system (see Chapter 2). The USSR was apparently able to produce world-class research (cf. Castells, 1998; Nove, 1969), i.e. to secure the supply-side of the equation, but the backward economy was apparently unable to absorb its fruits. Thus, it seems that behind the observed inability to establish synergistic linkages between production and research (Castells, 1998, p.5, 20), are not only perceived ossified institutional arrangements, but also significant structural economic deficits. Castells himself has noticed that 'it was impossible to modernize the technology of one segment of the economy without revamping the entire system' (1998, p.35). Such 'revamping', however, was probably beyond the reach of the USSR, especially in the hostile international conditions as described above, which only further drained the economy. This structural economic deficit of the Soviet economy has thus to be added to the list of contributing economic factors behind the fall of the regime.

What this alternative reading of the process of the collapse of state-socialism points to is a link back to the discussion about the circular and cumulative nature of knowledge, power and wealth (cf. Chapter 2) on a macro-economic scale. It appears that the

[9] Castells (1998, p.22) himself argues that 15 percent of Soviet GNP was committed to defence, which was 'more than twice the equivalent proportion in the US at the peak of Reagan's defence build up'. Castells, however, fails to compare these respective commitments in real terms. He also fails to take into account the initial lower level of Soviet military and technological capabilities, requiring disproportionate effort and upgrading simply by attempting to achieve parity with the USA.

second half of the 20th century was marked by a confrontation between two systems, each attempting to maximise knowledge, power and wealth. On the one hand, the USSR and its satellites, starting from a much lower level of economic development, apparently failed to initiate a 'virtuous circle', in part due to the external pressure placed upon them. On the other hand, leading capitalist countries, with a much stronger economic and technological base, withstanding the challenge of the Soviet block, were seemingly able to diffuse technological knowledge from their military and space programmes to their more vibrant economic base[10].

To conclude, the fall of state-socialism can hardly be seen simply as its inability to adapt to informationalism as suggested by Castells (1996, 1998). Even less so the event could be seen as a victory of free market capitalism over socialism (cf. Fukuyama, 1992). Rather, there is a need to consider a hypothesis that would highlight a struggle between two competing socio-economic systems, which ended, rather predictably, with the victory of the stronger and better resourced one[11]. Importantly, the case of 'military Keynesianism' as instituted by the USA, seems to suggest that the state can play an important role in fostering innovation and technological development, thus potentially contributing to economic growth more generally (cf. Archibugi, et al., 1999; Sandler and Hartley, 1995) and fostering what some observers see as the rise of the 'knowledge economy' or 'learning economy' [12] (cf. Chapter 2). Ironically, following the dissolution of the Soviet block, the recipe given by neo-liberals to the post-socialist countries to rejuvenate their economies went in the very opposite direction - the elimination of the state from the economy and the promotion of unfettered market forces became cornerstones of the 'transitional' agenda to which we now turn.

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[10] Although as noted in Chapter 2, the process can hardly be seen as unproblematic or as a move towards a more humane or harmonious society.

[11] From this point of view, it is actually surprising how long the Soviet experiment lasted.

[12] Indeed, one could argue that military procurement fits the criteria of interaction between a public user (the state) and private producer (defence company) as a model for the 'learning economy' (cf. Lundvall and Johnson, 1994).

4.3 'Transition' and its outcomes

Following the collapse of state-socialism Central and Eastern European Countries (CEECs) embarked on a path of 'transition' from state-socialism to capitalism (see Pickles and Smith, 1998; Csaba, 1995; Kolodko, 2000). A 'transitional' project was led by a formula illustrated in ***Figure 4.1*** (see Appendix). In this model scenario a *political transition* (political liberalization, free elections and general democratization) was launched in order to replace the single-party polity and (re)install liberal democracy and civic society. The *economic transition* launched in parallel – and fuelled by a neo-liberal approach (Gowan, 1995) – aimed (through economic liberalization, privatization and marketization) to quickly turn a centrally planned economy into a functioning market economy. The two 'transitions', political and economic, were expected to underpin each other and their implementation was seen as a pre-condition for catch-up and reintegration with a prosperous Western Europe (***Figure 4.1***). The discourse of 'transition' has become the dominant discourse through which processes in CEECs are described and understood (Smith, 2002).

The basics of the *economic transition* for CEECs were most readily laid down by Sachs, 1990. His 'shock therapy' seems to be perfectly in line with the Washington consensus 'policy mix', already in operation in many Latin American countries, with mixed outcomes (see Williamson, 1990). Sachs's 'therapy package' for Eastern Europe invariably advocated simultaneous price liberalization, trade liberalization, the convertibility of currency, free market competition, the promotion of private enterprise, the restriction of state enterprise, privatization and tight monetary and fiscal policies (Sachs, 1990; see also Blanchard et al., 1991). Sachs also advocated substantial financial aid to CEECs. Significantly, this part of the 'therapy' never fully materialized (with the notable exceptions of East Germany and Poland).

For CEECs, the speed of 'shock therapy' was thought to be essential as, in addition, it was supposed to fulfil a very important political goal: to prevent political opposition that might reverse the direction of reform (Sachs, 1990, p. 25). These tactics appeared to be working; even if the former communists later returned to power on a wave of popular discontent (Poland, Hungary), they were unable to challenge the general course of reform[13] (Thirkell et al., 1998, pp. 39–40). It is, therefore, fair to admit that neo-liberalism, in one form or another, has become dominant if not 'hegemonic' (ibid., p. 43, p.161) in CEECs during the course of the 1990s (see also Smith, 2002).

However, the outcomes of the neo-liberal 'therapy' in Eastern Europe have been truly shocking. The model scenario of 'transition' to 'capitalist paradise' (Csaba, 1995, p. 3) never materialized. Clearly, a decade later, the initial dreams are over. First, the *political transition* has been problematic. Political fragmentation and instability, problems with the establishment of democratic institutions, the rise of nationalist and extremist movements and threats to minority and human rights, are some of the political problems that have been encountered (Brown, 1994). In addition, parts of the former Yugoslavia and the former Soviet Union have experienced the reality of open military conflict or civil war (Brogan, 1992). Second, the *economic transition* has proved more difficult than expected. The deep 'transitional recession' surprised even pro-market commentators (Kornai, 1994). The painful change from a command economy to a market one reflected the collapse of eastern markets and economic decline, high unemployment, inflation, the doubtful results of privatization, a general decline in the standard of living and social polarization. The hardest hit sections of the population included not only ethnic minorities, disabled and elderly people, but also young couples and women in general. It is estimated that thousands of children in Eastern Europe are now born into extreme poverty, while the quality of health provision has been in rapid decline and excess mortality is increasing (see Gowan, 1995; Pickles and Smith, 1998; Pinder, 1998; Hudson and Williams, 1999; Bradshaw and Stenning, 2000; inter alia). Furthermore, it seems that 'shock therapy' eroded the knowledge-base on which the long-term economic growth of these countries could have been built (Myant, 1999a, 1999b, 1999c; see also Chapter 7 for the case of Slovakia). Third, related to this political and economic disarray in CEECs, rapid integration with Europe never materialized. In fact, quite the opposite has happened: new political borders and economic divisions have appeared (see Dunford and Smith, 2000; Hudson and Williams, 1999; Agnew, 2000). These uneven geographies of economic 'transition' will now be examined in turn.

[13] See also Chapter 7 of the thesis for a discussion on the political struggles over the implementation of the neo-liberal model of 'transition' in Slovakia.

4.4 The economic geography of 'transition'

The last decade has seen two main processes at work. First, all the former state-socialist countries have experienced serious economic downturn. Second, this downturn was felt with different intensity in different parts of Eastern Europe. As a result of both these factors, a spectacular fragmentation of the European space-economy has occurred (Sokol, 1999, 2001; Dunford and Smith, 2000; Agnew, 2000). Indeed, a number of 'fault lines' have been (re)appearing within the economic landscape of the New Europe (see ***Figure 4.2*** in Appendix). The most disturbing has been developing in place of the former 'Iron Curtain'. In terms of GDP per capita, it was estimated (European Bank for Reconstruction and Development (EBRD), 1998, p. 50) that the average level of real GDP in the Eastern half of Europe (including all the former USSR republics) in 1997 was down to 73% when compared with the 1989 level (100%). Meanwhile, the GDP in Western Europe recorded a steady growth (see Economic Commission for Europe (ECE), 1999, p. 196). Therefore, instead of catching up, the wealth gap between the two halves of Europe has actually grown.

The last decade has also seen significant divergence *within* Eastern Europe itself (see ***Table 4.1*** and ***Figure 4.2*** in Appendix). There appears to be a significant 'fault line' between East–Central European Countries (including the Baltic states) on one side (this will later be referred to as Super- Periphery A), and the Commonwealth of Independent States (the former USSR minus the Baltic states) on the other (Super-Periphery B). As shown in ***Table 4.1***, the weighted average of GDP in the first group in 1997 was 96% of the GDP in 1989. In contrast, the same ratio for the second group was estimated as 57% (EBRD, 1998).

Economic differences within these two groups are equally spectacular. Within the first group, for instance, a small number of Central European economies (Slovenia, the Czech Republic, Slovakia, Hungary and Poland) appear to be performing much better than others. However, a closer examination of the figures (***Table 4.1***) reveals that even these countries have been struggling to recover their 1989 GDP levels, let alone converge with the EU average. Comparing 1999 and 1989 GDP levels, the Czech figure was down by 4.7% and the Hungarian by 0.6%. After 10 years of painful 'transition' Slovakia has surpassed its 1989 GDP level only marginally by 1.7% and Slovenia by not more than 5.3 % (ECE, 2000, p. 225).

The Polish figure was surprisingly up by 21.8%, which, however, looks less impressive when the particular Polish circumstances are considered. Indeed, several points should be made about the Polish economic 'miracle'. First, it is generally accepted that in the 1980s Poland went through a deep recession (ECE, 2000, p. 156). Therefore, even a partial economic revival in the 1990s seems substantial vis-à-vis the 1989 recessional figure. Secondly, the Polish recovery has been greatly helped by writing-off the country's substantial debt burdens. This way, Poland in fact has become the biggest recipient of exceptional Western aid, unseen elsewhere in Central and Eastern Europe (Gowan, 1995; Kolodko, 2000, pp. 300–01). Thirdly, the 'impressive' Polish figure should be seen in relation to the EU GDP per capita average, where it translates to an improvement of only 31.3% to 39.9% (ECE, 2000, p. 175). Thus, Poland still lags considerably behind even its Central European neighbours, let alone the poorest EU countries. Finally, it has to be noted that more recently Poland experienced serious economic difficulties, marking the definite end of the 'miracle'.

Meanwhile, even the former East Germany, the richest former state-socialist country, does not seem to be catching up (ECE, 2000, p.175), despite massive financial injections (Prange, 2000). These figures, of course, mask vast regional inequalities within each of these countries. Indeed, over the last decade, regional disparities within each of the 'transition' countries have also been increasing (Gorzelak, 1996; Pinder, 1998; Smith, 1997; Dunford and Smith, 2000; Bachtler et al., 2000a; Gorzelak et al., 2001; inter alia; see also Chapter 7 of this thesis for the case of Slovakia). Clearly then, instead of the intended economic equalisation, we are confronted with an increasingly complex picture of uneven development in the 'New Europe'. The growing inequalities work against the commitment to social and regional cohesion of the enlarging EU and could in turn undermine the European integration project itself. The understanding of the dynamics of this uneven development, which have consequently become crucial for the future of the continent, will be discussed in the following section.

4.5 Theorising uneven economic development in Central and Eastern Europe

It could be argued that policy-makers and academics alike have increasingly recognised the broad patterns of uneven development outlined in the previous section. However, the understanding of its causes appears to be clouded by confusion (see Dyker, 1999). Several competing theoretical streams have been attempting to account for the divergent economic paths of countries and regions in post-socialist Europe, including neo-liberal, institutional and radical approaches. These will be examined in turn.

The dominant stream of literature 'explaining' uneven development in the CEECs is associated with *neo-liberal orthodoxy*. This is somewhat ironic given that the above empirical evidence from 'transition' countries clearly goes against the neo-classical assumption (such as Sachs's) of economic convergence under market conditions (cf. Dunford and Smith, 2000). However, instead of accepting the fact that the market economy is an inherently uneven process (Massey, 1984, 1995; N. Smith, 1984; Harvey, 1999; inter alia), neo-liberals are trying to convince us that if convergence has not occurred, this is primarily because there has not been *enough* market. For neo-liberals, quick and full implementation of the 'transition to market' equals good economic performance. According to Lloyd, 1996, p. 125, 'those countries which have instituted some or other brand of [shock therapy] have done, and are doing, best'. By implication, those countries which failed to implement free-market reforms, are facing increasing economic problems. Furthermore, there is the argument about the importance of the *timing* or *early start* of the reforms. A recent report of the European Commission considering EU candidate countries, for instance, claims that, 'in general, the countries which started to implement economic reforms *earliest* have tended to experience less of a reduction in GDP (Poland and the Czech Republic). Where economic restructuring was delayed ... the fall in GDP has been more severe' (European Commission (EC), 1999, p. 172; emphasis added).

The time dimension also emerges when it comes to judging how long individual countries have been dominated by the Soviet system. Unsurprisingly, the state-socialist legacy is the only one neo-liberals are ready to consider. Their assumption is that the longer a country remained under socialism, the bigger the damage made to its economy, hence the difference between countries of the former USSR and its former satellites. Finally, neo-liberals point to the political dimension of the 'transition'. According to Karatnycky, 1998, the reason for economic problems in many 'transition' countries was their failure to establish liberal-democratic regimes, i.e. to implement the *political* half of the 'transitional' agenda.

One way to counter these arguments would be to name numerous examples of countries where the evidence simply does not conform to the above neo-liberal framework (e.g. Pickles and Smith, 1998) or to point at sub-national regional divergence (Sokol, 1999). A comprehensive critique of the neo-liberal approach, however, has to address the fact that at the *macro*-regional level, some general correlation between the progress of economic and political 'transition' and the economic performance of CEECs can be observed (Karatnycky, 1998; EBRD, 1998). This thesis supports the view that the fallacy of the neo-liberal argument lies with establishing the *direction* of the causal relationship between the two variables. Pointing at this fundamental flaw, the alternative account of uneven development in Central and Eastern Europe should place different pre-socialist and state-socialist structural legacies and the way these interact with today's global capitalism in the heart of its analysis (see also Dunford and Smith, 2000, p. 172).

The building blocks for such an alternative approach can be found from within *radical* (Clarke, 1993a; Gowan, 1995; Gowan, 1996; Thirkell et al., 1998; Pollert, 1999a) and broad *institutionalist* perspectives (Stark, 1992; Bryant and Mokrzycki, 1994; Hausner et al., 1995; Amin and Hausner, 1997; Grabher and Stark, 1997a, 1997b; Stark and Bruszt, 1998; Pickles and Smith, 1998; Smith and Pickles, 1998; Kolodko, 2000). The starting point of the institutionalist stream is the salience of evolving institutions in shaping social and economic action and a recognition that new institutions are inevitably embedded in the old ones. Thus in post-socialist Eastern Europe, the new system is built not only *on* the ruins, but *from* the ruins of the former (Stark, 1992). Therefore, instead of *transition* (from one to another identifiable point), we are witnessing *transformation* (see also Bryant and Mokrzycki , 1994; Stark and Bruszt, 1998, p. 83). Transformation is seen as both a *path-dependent* and *path-shaping* process, where history and legacies matter but where new trajectories are possible too (Hausner et al., 1995). As these trajectories are shaped by societal struggles, the outcome of transformation cannot be guaranteed (Clarke, 1993a; Eyal et al., 1998). Indeed, as argued below, instead of a model scenario of 'transition' to capitalism, various 'vicious circles' can develop (see section 4.6). Importantly, it will be argued that historical legacies deserve attention as one of the important factors shaping these developmental trajectories in post-socialist Eastern Europe. The historical legacies, however, should not be understood solely as 'soft', narrowly defined 'social networks' (see critique by Pollert, 1999a; Smith et al., 1999) but also as the 'hard' legacies of political (Pollert, 1999a) and economic structures (Smith, 1998). Furthermore, the search for legacies should not be limited to the state-socialist period. If we accept that 'capitalist revolution' (Csaba, 1995) is not immune from state-socialist ruins, than we have to accept that 'socialist revolutions' in Central and Eastern Europe were not immune from whatever preceded them. This 'whatever' preceding state-socialism seems to be actually quite important (see Dunford and Smith, 2000) and will be subsequently elaborated upon in section 4.6..

Meanwhile, it should be underlined that it is of critical importance how these pre-socialist and state-socialist legacies interact with the imperatives of today's global economy. This interaction is mediated through well-defined institutions: capital, state and labour (Pollert, 1999a; Smith et al., 2002). The role of labour is invariably stressed by the radical camp (Clarke et al., 1993; Thirkell et al., 1995, 1998; Pollert, 1999a); however, there is also a recognition of the disorientation and weakening of 'organized labour' (Pollert, 1999b; Vickerstaff and Thirkell, 2000). It seems, therefore, that it is this 'unorganized labour' in Central and Eastern Europe which unwillingly partakes in reshaping the economic architecture of the New Europe (Smith et al., 2002). The role of the state and its policies are also rightly emphasized (Kolodko, 2000) and some would suggest (Hausner et al., 1995) that there are strategic choices available to them. It is important, however, to realize constraints and pressures under which nation-states, let alone regions, have been operating. The critical external pressure comes from the intertwined virtue of foreign capital and international institutions (Gowan, 1995; Thirkell et al., 1998). Indeed, in Gowan's view, 'transition' to capitalism, and especially its 'shock therapy' form, has been designed to allow Western capital to conquer East European markets, to capture cheap production lines there and to create 'hub-and-spoke' West–East economic relations (Gowan, 1995). In this radical opposition to neo-liberal views, the 'transitional' project is not seen as a part of the solution, but rather as a part of the problem (see also Smith and Swain, 1998, p.47), and the growing economic divergence between East and West is seen in the context of a broader international political economy.

The imbalance in East–West economic relations has been recently echoed in the work of Smith et al., (2002). Seen through the prism of 'value chains' or 'value networks' (discussed in more detail in Chapter 3), Smith et al. (2002) see emerging uneven geographies in the 'New Europe' in the light of the reworking of divisions of labour and value flows across the continent. This approach, as argued in Chapter 3, provides a valuable tool in analysing processes underpinning the space-economy, and thus need to be integrated into an emerging alternative framework for understanding uneven development in post-socialist Europe. The outlines of such an alternative approach will be now discussed in more detail in the following section, while focusing on the issue of historical legacies, and the interaction of these legacies with the constraints of today's international political economy.

4.6 Towards an alternative approach

Historical legacies and the uneven transition to capitalism

The starting point of the alternative to the neo-liberal account rests with the acknowledgement that dramatic disparities existed in Europe *before* state-socialism dominated its Eastern half (see Smith, 1998, pp. 41– 44; Good, 1994). This section argues that, on a macro-scale, at least four tiers can be identified. First, there were nations and regions that took part in the industrial revolution and were well integrated into Europe's industrial and urbanized centre (such as today's Slovenia and the Czech Republic; see ***Figure 4.2***). The second tier consisted of areas where industrialization occurred belatedly and was less pronounced than in the first group (e.g. today's Slovakia, Hungary and Poland). Third, there were vast rural areas of the Eastern European periphery that were pre-dominantly agricultural (e.g. Russia, Belarus, Ukraine). Fourth, at the very bottom of the league, there were the backward underdeveloped regions of Central Asia. These too were incorporated into the Soviet Bloc. Of course, this typology itself is a generalization as divisions within these tiers and individual countries were themselves pronounced.

Nevertheless, the tiers represented very different economic and political structures. The first tier can be seen as representing well-established liberal-capitalist industrial society, with the second tier moving slowly in that direction. The third tier, in contrast, could be seen at best as weak pre-capitalist society, with the fourth tier being deadlocked by mostly feudal-type social and economic relations. In terms of GDP per capita, for the countries and regions of the first tier this was just above or close to the European average at that time (Austria, Denmark). The areas of the second tier probably enjoyed GDP per capita similar to Spain, Portugal or Greece at that time. Meanwhile, the countries and regions of the third and fourth tier fell well below any European standards. The above features constituted major structural legacies that cannot be ignored in the analysis of the uneven development in Eastern Europe. These structural legacies, however, were those that the arrival of state-socialism attempted to overcome.

Undoubtedly, state-socialism for its part has left several distinctive marks on socio-economic structures of regions and nations of Eastern Europe. Arguably, state-socialism was committed (at least in theory) to social justice as well as spatial equity. Partial regional convergence was achieved (Dunford and Smith, 2000, p. 172) but often at the expense of creating inefficient and unsustainable economic structures (see Smith, 1998). Furthermore, as seen in section 4.2, the Soviet economic system has largely been distorted by its political and military 'irrationalities' (Clarke, 1993b; Smith A. H., 1994; Castells, 1998) and was not profit-oriented (Clarke, 1993a; Pollert, 1999a, p. 52). All this became critical at the time of the transformation to capitalism. If the Soviet system and its enterprises were not designed to operate for profit and to sustain market pressures, it is hardly surprising then that marketization would have had catastrophic consequences. Indeed, reflecting this handicap, in the decade following the collapse of state-socialism, the wealth gap between the West and the East has grown. Simultaneously, reflecting the differentiated ability of countries and regions to compete on the global marketplace, a significant divergence has occurred within the East itself. As a result of the two processes, a map of space-economic inequalities in Europe has been (re)produced.

Eastern Europe as 'super-periphery'

If we imagine the space-economic map of Europe in terms of a centre–periphery model, with Western Europe seen in terms of a 'core' (blue banana) and 'centre', surrounded by a 'periphery' (Objective 1 areas) (Dunford and Perrons, 1994, pp. 165–66; Knox and Agnew, 1998, pp. 157–58), then the Eastern half of the New Europe can be seen as an emerging 'super-periphery' (***Figure 4.2***). The 'super-periphery' itself could be divided into *super-periphery A* (East–Central European Countries including the Baltic states) and *super-periphery B* (former Soviet Union minus the Baltic states). During the last decade of 'transition', economic differences between the two super-peripheries have grown (***Table 4.1***).

On this macro-regional level a certain correlation between the progress of political and economic 'transition' and economic performance can indeed be observed. However, an alternative explanation can lie with different historical legacies. In fact, in super-periphery B, the liberal-capitalist economic and political structures were relatively underdeveloped or non-existent prior to state-socialism. The economic base built under the central planning system collapsed under 'transitional' shocks and there are weak foundations for a functioning liberal democracy project. Rather, political turmoil and instability were experienced and further fuelled by the catastrophic economic situation, social polarization, ethnic and regional fragmentation. These are the foundations of the 'vicious circle' scenario (see below), where effectively the implementation of 'transition' could be halted. In comparison, the countries of super-periphery A are doing better as they are returning to capitalism. They have a more solid economic structure and more experience with both the market and parliamentary democracy (see Berglund et al., 1998). The economic impact of 'transition' was less devastating. Also there has been greater political courage to undertake necessary reforms, as the political élites there could rely more on the necessary support of the population. The prospect of converging economically and politically to Europe seemed to be closer. Indeed, some of these countries were likely to start the 'transition' sooner than the others – as rightly *observed*, but misinterpreted by neo-liberals (cf. section 4.5).

Echoing the legacies of the old development tiers described above, a further sub-division may be created within each of the super-peripheries (***Figure 4.2***). Super-periphery A thus includes zones 'a+' (Slovenia, the Czech Republic; western Poland, western Slovakia, western Hungary) and 'a' (the rest of the East-Central Europe; Rumania, Bulgaria), while allowing for an emerging depressed zone 'a–' (the former Yugoslavia[14]). Meanwhile, super-periphery B can be sub-divided into zone 'b' (Russia, Belarus, Ukraine, Moldova) and zone 'b–' (the Caucasus and Central Asia). These sub-zones display diverging economic fortunes (***Table 4.1***).

Clearly, it could be argued that the above model represented by ***Figure 4.2*** is a simplification of a real space-economy, in that it lacks micro-regional detail and therefore fails to capture the important disparities within the above mentioned space-

[14] The zone 'a–' includes parts of the former Yugoslavia that have been trapped in a 'vicious circle' of devastating ethnic conflict and whose GDP has been rapidly sinking. Estimates available for the whole former Yugoslavia suggest a drop from 45.2% in 1989 to 23.8% in 2000 of the EU average of per capita GDP (see ECE, 2000, p. 175). The biggest economy of the zone used to be that of Serbia which

economic zones and individual countries. Capital cities and major urban centres, for instance, are important elements in shifting the balance (Downes, 1996; Gorzelak, 1996; Surazska et al., 1997). Nevertheless, the model seems to be useful in understanding macro-regional disparities within the 'New Europe'. Indeed, a gradient from 'a+' to 'b–' in the super-periphery represents significant differences in economic performance and the general standard of living. However, even the most economically advanced countries of super-periphery A (perhaps with the exception of tiny Slovenia) are lagging behind Portugal and Greece, the two worst-off cases of Western Europe (see EC, 1997, p. 137; Dunford and Smith, 2000; EC, 2000). The fact that even these countries (a+/a) have failed to show a tendency to catch up is an embarrassment for neo-liberal theory and calls for a closer examination of the international political economy and market forces that were supposed to trigger convergence effects.

Power of international political economy

The power of international political economy seems to be channelled through clearly distinguishable but closely interrelated mechanisms: foreign direct investment, trade, financial capital flows and the strategies of international institutions. All are trumpeted by neo-liberal rhetoric as vehicles for prosperity and catching-up processes between East and West. However, their closer examination reveals that they actually often work in opposing directions, reinforcing East–West divergence and exacerbating disparities within the East.

To commence with *foreign direct investment* (FDI), foreign capital was supposed to be an engine of 'transition' bringing badly needed capital, new technology, efficient management, up-skilling, value-added production, jobs and economic growth to Eastern Europe. However, the overall level of FDI inflow into CEECs has been disappointingly low (Pollert, 1999a, p. 112) as well as very unevenly distributed (***Table 4.1***). Profit-seeking foreign investors have clearly preferred the politically more stable and economically richer countries and regions of super-periphery A,

among others suffered years of international sanctions and whose economy and infrastructure has been further decimated by NATO's operations in 1999.

leaving in limbo areas that probably need the investment the most[15]. However, even for more advanced regions, FDI does not necessarily provide the kind of vehicle for regional development expected by neo-liberal orthodoxy and uncritical economic geography (see Gowan, 1995; Hardy, 1998; Pavlinek and Smith, 1998). Above all, appropriated surplus value seems to flow in an East–West direction, underlying the emerging 'value chains/networks' in the 'New Europe' (Smith et al., 2002).

East-West *trade* patterns display similar symptoms. Following the liberalization of the trade regime, Eastern European markets have become flooded with western products (Gowan, 1995). Only a few Central European countries have shown some capacity to compete in Western markets; however, their export ability has been curbed by the *de fàcto* protective measures of the EU, especially in those sectors critical to CEECs recovery (Smith A. H., 1994; Gibb and Michalak, 1994; Gowan, 1995; Williams et al., 1998). Trade liberalization thus produced substantial market pressures that only the most advanced and diversified regions seem to sustain, aided further by incoming FDI.

The third mechanism through which the power of international political economy manifests itself is *financial capital flows*. Volatile private financial flows seem to have an important impact on the fortunes of transitional economies (see EBRD, 1998; Kolodko, 2000, pp. 315–16), while the significance of the money lending process has also been highlighted (Gowan, 1995; Altvater, 1998; Thirkell et al., 1998). Among the criticized features of the latter is its 'conditionality' as well as the 'full repayment' rule (ibid., Chapter 3) which shifts the economic power balance between West and East further in favour of the West (Gowan, 1995, p. 58). Also it seems to enhance economic differences within Eastern Europe, as the more advanced and successful transition countries are likely to be able to negotiate better deals with Western creditors than their more troubled counterparts elsewhere in Eastern Europe. Undoubtedly, that financial capital flows in a variety of forms should be included as an important element of the 'value network' approach.

[15] The exceptions are the oil and gas economies of Azerbaijan, Kazakhstan and Turkmenistan (see EBRD, 1998, p. 81).

Finally, the strategies of financial, economic, political and military *international institutions* (IMF, World Bank, EBRD, G7, OECD, EU, NATO) deserve attention as they exercise a considerable influence on all three of the above-mentioned mechanisms. They have been acting as powerful promoters of free-market ideology, and their strategies vis-à-vis Eastern Europe can be seen as a set of incentives and constraints (Gowan, 1995, 1996; see Chapter 7 for the case of Slovakia). The space-economic implications of these strategies match with the patterns described so far. One dimension of these strategies is reflected in differentiated access to financial incentives. Simply put, the economically most advanced CEECs have been receiving more funding than their poorer East European neighbours (see Sokol, 2000, 2003 for a discussion on EU PHARE funding; and Smith, 2002, p.655-656 for the case of EBRD financing). Another dimension of the same pattern is related to what could be termed the 'geo-politics of memberships'. For instance, it is impossible to overlook the fact that the Czech Republic, Hungary and Poland, the three countries with the highest FDI stock, have been accepted as the first East European NATO members, making them even safer places for investment and reinforcing their economic as well as political rating. Another important contributing factor to this privileged position was that the Czech Republic, Hungary and Poland (together with the two smallest candidate countries, Slovenia and Estonia) have been officially named as *favoured* candidates for the EU membership[16]. The Czech Republic, Hungary and Poland also secured OECD membership (recently joined by Slovakia). Importantly, the membership of these powerful and prestigious international organizations can also be seen as a reward for their support and commitment to Western neo-liberalism, as much as being an example for others to follow.

Vicious circle?

Many other 'transition' countries would like to follow the same path. However, they often seem to be caught between the imperatives of the world economy and their own historical legacies. For them, the kind of model scenario promised a decade ago

[16] More recently, the EU seems to be more inclined to go ahead with the 'big bang' enlargement involving *all* candidate countries, except Rumania and Bulgaria. If such an enlargement goes ahead in 2004 as planned, it will dramatically widen the geo-political gap between super-periphery A and super-periphery B, while enhancing division lines *within* super-periphery A.

(*Figure 4.1*) never materialized. Instead, they face increasingly complicated political, economic and social situations, as the 'transition to capitalism' unleashed unexpected processes that they are unable to cope with. Economic hardship, political instability, social polarization, ethnic and religious fragmentation, growing regional disparities, to mention just a few, seem to interlock with each other in the web of a 'vicious circle' scenario (*Figure 4.3*, Appendix; cf. Chapter 3).

A 'vicious circle' scenario shows that, contrary to neo-liberal expectations, political and economic transformations do not necessarily support each other (cf. Eser, 2000). Instead, they can undermine each other and cause serious deadlock of 'transition'. Within the 'vicious circle' scenario, the way back to state-socialism is impossible, while prosperous liberal-capitalism seems to be beyond reach. Varied outcomes of 'transition' (see Pickles and Smith, 1998) thus can include 'bandit capitalism' (Handelman, 1998) or some sort of 'hybrid capitalism' (Csaba, 1995; Altvater, 1998), perhaps with neither capitalists (Eyal et al., 1998) nor capital (Pollert, 1999a). Ironically, troubled countries and regions, as we have seen, are often abandoned by private investors, bankers and international institutions. They are often left to themselves in their struggle to overcome their structural legacies – this in a context of increasing global competition and mounting debts. The prospects for these regions and countries seem increasingly grim and their participation in the European or indeed global division of labour seem to be, at best, limited to low-wage, low-value production. Such a picture raises serious questions over the ability of 'least-favoured regions' or even whole countries in Central and Eastern Europe, to 'choose' their economic trajectories and to embrace a 'higher road' of development. These questions will now be considered in the concluding section.

4.7 Conclusion

The aim of this Chapter was to explore the regional dimensions of post-socialist transformations in the 'New Europe'. The Chapter started by discussing a hypothesis of the collapse of state-socialism. In particular it examined the claims of heterodox economists and social scientists that the fall of state-socialism has to be seen in the context of the rise of the 'knowledge economy'. The strongest statement on the topic has been offered by Castells (1996, 1998) who conceptualised the demise of the Soviet Union as the inability of 'industrial statism' to adapt to 'informational modes of development'. Such a proposition has been critically evaluated and an alternative hypothesis has been suggested. This sees the failure of state-socialist regimes in the light of confrontation between two socio-economic systems, their differentiated economic levels and ability to induce a 'virtuous circle' between knowledge, power and wealth.

Subsequently, the Chapter then focused on the discussion of dominant policy discourse in post-socialist Europe. Fuelled by the neo-liberal approach, the dominant stratagem invariably advocated the dissociation of the state and economy, and the introduction of unfettered market forces as a vehicle for the rejuvenation of post-socialist economies. However, the Chapter has argued that a decade after neo-liberal 'transition' was introduced in Central and Eastern Europe, the catch-up with Western Europe has not materialized. Instead, Eastern Europe has emerged as a 'super-periphery' of the continent[17]. This super-periphery itself is marked by profound fragmentation of the economic landscape, the dynamics of which have not been adequately understood by the neo-liberal approach.

The Chapter then progressed to an alternative account of uneven development in post-socialist Eastern Europe. Building on the strengths of radical and institutionalist theoretical streams, the discussion focused on the role of different historical politico-economic legacies and their interaction with the current imperatives of the international political economy. This interaction provides a framework for understanding divergent transformational trajectories, characterised by two significant processes at work. On the one hand, the wealth gap between the West and the East has grown, due to the state-socialist legacies of Central and Eastern Europe, emerging as the super-periphery of the 'New Europe'. On the other hand, there has been growing divergence *within* the super-periphery itself, echoing old pre-socialist legacies. Many countries and regions (especially those in super-periphery B) seem to be trapped in a 'vicious circle' scenario and emerge as the 'least-favoured' areas in Europe.

[17] As a corollary to this process, there was an erosion of the knowledge-base on which the long-term economic growth of former state-socialist countries could have been built (Myant, 1999a; see also Chapter 7 of the thesis).

Meanwhile, a group of countries within super-periphery A has shown better ability to engage with today's European and global economy, as they are on a *return* journey to capitalism. However, even for these most advanced CEECs, the reintegration with the world and (Western) European economy has been a painful process (see Chapter 7 for the case of Slovakia). Indeed, the reintegration is taking place in the context of accelerated technological change and intensified competition within the international political economy. Therefore, a simple introduction of market rules is probably insufficient to ensure economic success.

Indeed, former state-socialist economies are increasingly integrated with the European and global political economy, through complex networks of commodity production (Smith et al., 2002). Importantly, however, this 'integration' is accompanied by uneven patterns of value production, distribution and appropriation within the socio-economic system and between territories. In other words, regions and countries are being subjected to global and European 'divisions of labour' and accompanying 'value chains/networks'. Echoing arguments developed earlier in this thesis, these 'socio-spatial divisions of labour' and 'socio-spatial flows of value' may be seen as emerging from social struggles within and between capital, labour and the state. In addition, an important role in these struggles seems to be performed by international organisations in the context of an increasingly profit-driven economy (cf. Chapters 2 and 3).

The fate of 'less-favoured' and 'least-favoured' regions in such a context is a matter of concern. What the discussion in this Chapter has shown is that caught between the imperatives of global capitalism, together with their own state-socialist and pre-socialist legacies, countries and regions in 'transition' seem to have limited room for manoeuvre. Their ability to 'choose' their prosperity and to emulate the 'high road' of development seems to be highly circumscribed. The suggestion that these regions have the power to change their own position on the European map of inequality needs to be critically scrutinised. Action at the regional level is no doubt possible, but it has to be seen in the context of the wider political economy and underlying social struggles. Consequently, such action is both historically and locationally contingent (cf. Massey, 1995) and its concrete shape and outcomes can only be explored through a set of empirical analyses of 'real' regions. Part II of the thesis thus moves into empirical territory and offers a detailed study of two regional states, one in the periphery of Western Europe (Scotland – Chapter 6) and the other in the Eastern super-periphery (Slovakia – Chapter 7). The presentation of the two case studies will be preceded by a description of an analytical framework and methodology in Chapter 5, to which we now turn.

PART II

Chapter 5:

Analytical framework and methodology

5.1 Introduction

Part I of this thesis focused on the conceptual issues. Initially, Chapter 2 provided a critical discussion of the concepts associated with the 'post-industrial' transformations and the rise of the 'knowledge economy'. Chapter 3 then examined the literature dealing with the regional dimension of the 'knowledge economy' or 'learning economy'. In particular, the Chapter focused on the 'learning region' paradigm in the context of advanced capitalist countries. Chapter 4 then shifted attention to the regional processes in post-socialist Central and Eastern Europe and to the uneven economic geography of the 'New Europe'. Critical examination pointed at a limited value of the 'knowledge economy' and 'learning region' concepts in accounting for patterns of current socio-economic change and their regional dimensions. In particular, the claims that regions themselves can choose their prosperity and their development trajectories were questioned. The disintegration of the 'knowledge economy' and 'learning region' paradigms and the inability of the neo-liberal approach to account for recent divergent regional trajectories, opened room for an alternative conceptualisation of regional development in the 'New Europe'. Part I attempted to provide elements of a possible alternative framework, pointing at the significant constraints regions are facing in constructing sustainable development trajectories vis-à-vis historical legacies and the constraints of the wider political economy.

The aim of Part II of this thesis is to examine the above conceptual issues in the light of empirical evidence. Two regions (regional states) of the 'New Europe' have been selected for such empirical study. One is located in the periphery of Western Europe (Scotland), the other is in the Eastern 'super-periphery' (Slovakia; cf. ***Figure 1.1*** in Appendix). Both regions appear to be valuable cases for such research. Indeed, both seem to have undergone significant transformation from an industrial to a 'post-industrial' economy. Both seem to have attempted to build institutions akin to those advocated by the 'new regionalist' literature. Both are keen to emerge as competitive economies within the 'global knowledge economy'. Scotland represents a case in which the 'knowledge economy' and 'learning' or 'smart region' was placed at the forefront of the economic strategy and economic development institutions of Scotland have been actively involved in the implementation of such strategy. Slovakia, emerging from post-socialist transformations, is characterised by a less clear stratagem, but nevertheless displays attempts to move in that direction and to build its institutions accordingly. From this point of view, both Scotland and Slovakia exhibit features that resonate with those highlighted by the 'learning region' literature (see below). Both Scotland and Slovakia, however, also seem to face considerable challenges in constructing their economic trajectories. The consideration of these challenges raises fundamental questions about their respective ability to 'choose' prosperity and promote a 'high road' of development. The way Scotland and Slovakia are coping with this task represents an underlying theme of the empirical part of the thesis.

Part II is structured as follows. The present Chapter 5 will first briefly recapture the theoretical arguments from Part I, highlight research questions and attempt to outline a single analytical framework through which the two case studies can be approached (section 5.2). The second part of the Chapter will then provide a justification for the selection of the two regional cases, followed by a more detailed description of the research methods employed (section 5.3). Chapter 6 will then present empirical evidence from Scotland and its attempts to build a 'knowledge economy'. The case of Slovakia will be presented in Chapter 7, highlighting the problematic nature of post-socialist transformations and simultaneous efforts to lay foundations for competitive development strategies. The two case studies are structured in a way that allows for a comparison to be undertaken. This will be provided in Part III of the thesis within a concluding Chapter 8.

5.2 Analytical framework

The aim of this section is to outline an analytical framework through which the two case studies can be approached. The section will thus first briefly recapture the theoretical arguments reviewed in Chapters 2, 3 and 4, alongside their critique. Subsequently, the research questions will be highlighted, followed by an outline of the analytical structure for the empirical research.

This thesis has engaged with several key arguments that seem to pervade the literature in contemporary economic geography. First, there is the widely shared argument that economically advanced countries have been entering a new phase of development described as 'post-industrial society', 'information society', 'knowledge economy' or 'learning economy'. The emergence of such a 'new era' has been associated with hopes that the contradictions of industrial capitalism will be overcome, to give way to more harmonious patterns of development, both socially and spatially (cf. Chapter 2). As a corollary to these claims, concepts dealing with the regional dimensions of such a 'new era' have emerged (cf. Chapter 3). These concepts have emphasised the key role of knowledge, learning and innovation in regional economic processes and highlighted the positive contribution of regional institutions in fostering these, allegedly the most important, factors of success. Importantly, this 'new regionalist' literature has supported arguments that less favoured regions can reach a 'high road' of development by becoming 'learning regions'. Such a process, it has been claimed, can be greatly assisted by appropriate institutional structures. In particular, the role of regional development agencies has been highlighted as providing the function of an *animateur* for the economic renewal of such regions. The underlying theme within such a conceptualisation is the belief that regions in fact can 'choose' their prosperity by emulating successful economic trajectories (cf. Chapter 3). These claims had massive policy influence and 'less favoured' regions in the West, as well as 'least favoured' regions in the East of the 'New Europe', have been advised to follow 'learning region' or 'learning economy' strategies.

However, the critique undertaken in Part I of the thesis has pointed to the fundamental weaknesses of the above approaches. The claim that advanced capitalist economies are becoming 'knowledge economies' seems unsubstantiated (cf. Chapter 2).

Similarly, the hypothesis that state-socialist regimes collapsed due to their inability to embrace the 'knowledge economy' is doubtful (cf. Chapter 4). Meanwhile the theorisation at the regional level related to the allegedly emerging 'knowledge economy' seem to be misconceived. The concept of the 'learning region' is not properly defined, and neither are the building blocks from which it is constructed. It appears that the conceptualisation offered by 'new regionalist' literature is in many respects flawed and lacks the backing of cogent empirical evidence. In addition, the 'learning region' paradigm seems to deliver rather confusing messages for less favoured regions and their prospects in the contemporary political economy (cf. Chapter 3).

Following the critique, Part I of the thesis attempted to provide the elements on which an alternative conceptualisation of regional development in the 'New Europe' could be built. It has been argued that such an alternative would start by acknowledging that the economy is an institutionalised social process and that institutions are at the same time objects, subjects and outcomes of social struggles over power, knowledge and wealth. The thesis has supported the view that far from being knowledge-driven, the contemporary economy is distinctively capitalist and profit-driven. Consequently, knowledge should be seen in the light of profit imperatives and through the prism of a complex matrix of a mutual relationship between knowledge, power and wealth.

At the regional level of the analysis, it has been suggested that regions cannot be taken for granted as objects of analysis. Instead, regions themselves could be seen as institutions – i.e. as objects, subjects and outcomes of particular social struggles (economic, political, cultural) at a specific spatial scale. It follows then that regional institutions (e.g. institutions of the regional state) *can* provide a platform for active participation in the economic development processes. However, their actions need to be seen in the context of the wider political economy as well as historical legacies (cf. Chapters 3 and 4). In particular, the processes of circular and cumulative causation, as applied at the regional level, point to the spatially disequilibrating dynamics of the interaction between knowledge, wealth and power. Thus regions could be better described as participating in wider 'socio-spatial divisions of labour' and 'socio-spatial value chains/networks' that underpin the uneven distribution of the commodity production process within the wider (global/European) political economy and accompanying uneven flows of value. It is through such a prism that diverging regional trajectories in the 'New Europe' could be conceptualised and understood.

Such an alternative conceptualisation, however, raises several fundamental issues that require empirical examination. These issues then translate into research questions that the case studies in this thesis will attempt to address. They may be distilled as follows. The underlying issue is to what extent regional prosperity can be seen as a 'matter of choice'. The subsequent question arises as to how important the role of regional institutions is in securing such prosperity. More specifically, the question can be asked whether specialised regional development agencies can function as *animateurs* for promoting the transformation of regional economies and whether they can provide a springboard for less favoured regions to reach the 'high road' of development. Beyond these fundamental questions related directly to regional institutional set-ups, one should ask what other factors play a role in the economic performance of regions. As argued previously, historical legacies and the wider political economy impinge upon, and can provide powerful constraints for, regional development trajectories. Empirical research thus should try to evaluate the respective weight of such factors in determining regional fortunes. Finally, there is a need to validate empirically to what extent regional fortunes are shared *within* regions, and to what extent these are marked by intra-regional social and spatial divides.

These research questions will be examined in the context of the two selected regional cases (see below), structuring the analytical framework around the following points. First, it is vital that each of the cases is placed in a long-term *historical perspective*. Such a perspective should depict significant historical legacies, both 'soft' institutional and cultural legacies, and 'hard' legacies of economic-political structures. These historical legacies then provide important elements for an understanding of the region's integration with the current wider political economy. The *wider political economy* itself then constitutes the second point that needs to be reflected in the analysis. In particular, it should point at the ways the regional economy is being integrated into wider 'divisions of labour' and 'value chains/networks'. In turn, such analysis helps to provide a framework for the understanding of the current *economic performance* of a given region. The economic performance represents a third focal point for the analysis. Fourth, *institutional contexts* are to be explored in each of the cases, providing us with much needed insights into the role of regional institutions in affecting a region's integration with the wider political economy and its economic performance. Fifth, a specific focus is required in the empirical examination of the role of specialised regional development agencies considered as *animateurs* for regional renewal. Finally, analysis needs to provide insights into *intra-regional dimensions* of socio-economic change in an attempt to elucidate the extent to which regional prosperity is shared (or not shared) within a given region. The above analytical framework has been used when examining the two case studies and is reflected in the structure of Chapters 6 (Scotland) and 7 (Slovakia) respectively. The justification of the choice of these two cases is provided below and will be followed by a description of the research methods used.

5.3 Methodology

Choice of case studies: justification

As already indicated in the introductory section of this Chapter, Scotland and Slovakia were considered suitable cases for the empirical examination of the issues highlighted above. Indeed, each of the two regions offers valuable material for empirically validating the ability of regions to construct their development trajectories in the 'New Europe'. In addition, however, Scotland and Slovakia also offered an excellent opportunity for a comparison. Indeed, as shown below, broad similarities can be found in terms of their economically peripheral position, population size, emerging institutions, economic structure and development strategies, providing a good basis for a comparative study. These broad similarities will now be briefly outlined, while various fundamental differences will be indicated at the same time[1].

In terms of **economic structure**, both region-states had in the past a robust *industrial* base. Although occurring within different socio-economic contexts, both Scotland and Slovakia, also share experience of the process of industrial restructuring, de-industrialisation and the growing relative importance of services in their respective economies. Their transformation experiences could thus be related to claims about the

[1] For a detailed comparison see Chapter 8 of the thesis.

alleged rise of the 'post-industrial', 'service' or 'knowledge economy' and its regional dimensions (cf. Chapters 2 and 3 of the thesis). Importantly, both Scotland and Slovakia also represent cases of **'less favoured' regions** within the European space-economy. As revealed in subsequent Chapters, their relative economic positions differ considerably; however, both could be seen as economically peripheral regional economies of the 'New Europe'. Scotland occupies a somewhat privileged position within the periphery of Western Europe, while Slovakia is one of the most advanced economies of the Eastern 'super-periphery', attempting to build market capitalism and to join the EU.

Similar **population sizes** make the two cases easily comparable, with Scotland's population at 5.1 million and Slovakia's at 5.4 million. Interestingly, both cases fall within the population limit of 5 to 15 million, thus fitting into the category of *region-states,* promoted by Florida (1995a) as basic organisational units of the 'global knowledge capitalism' (see Chapter 3). In addition, both region-states have rich **institutional structures** and do not seem to lack the 'institutional thickness' (cf. Amin and Thrift, 1994b) regarded as essential for the functioning of 'learning regions' (Morgan, 1997). Indeed, both cases may be assumed to be endowed with a significant amount of 'social capital' and discernible 'identity', given that they both in fact represent nations. Another interesting similarity between Scotland and Slovakia is the fact that they both spent a significant part of their history as 'stateless nations', being integrated as 'regions' into wider nation-states. However, both Scotland and Slovakia have also shown a strong tendency for reconstructing their institutions as part of the wider process of 'nation-building'. Indeed, more recently, Scotland emerged as a region-state following *devolution* in the United Kingdom, thus recreating, to a limited extent, its autonomy and institutions of governance. Similarly, Slovakia, after building its governing structures in late 1960s, emerged as an independent nation after the *defederation* of Czecho-Slovakia in 1993. Thus both Scotland and Slovakia have democratically accountable governance structures that have been highlighted as important elements of the economic and democratic regional regeneration agenda (cf. Chapter 3).

Furthermore, what makes Scotland and Slovakia particularly relevant to the themes central to this thesis are their respective **attempts to build regional 'knowledge**

economies' and to create relevant institutions that would support them. Indeed, both Scotland and Slovakia have attempted (with varying success) to construct institutional structures, such as development agencies, that would promote a regional economic transformation towards more knowledge-intensive forms of production. Scottish Enterprise, Scotland's main economic development agency, has been actively involved in the implementation of such a goal. In Slovakia, the picture is more complicated, but there have also been attempts to initiate such a process. In both Scotland and Slovakia, these existing and/or emerging development bodies are akin to ***animateurs*** promoted by 'learning region' theorists as essential for regional renewal (cf. Chapter 3). Besides, both regions seem to be involved in creating institutional capacities whose role is specifically to 'look forwards' (cf. Storper and Scott,1995; Hudson et al., 1997). Thus, both Scotland and Slovakia seem to display efforts to 'learn' and 'adapt' and to promote their respective competitiveness within the global political economy and integrating European economic space. In Scotland, the aims of 'learning' and 'adapting' in the 'global knowledge economy' are explicitly expressed through stratagems such as 'smart Scotland' and manifested through the support of the 'Silicon Glen' (see Chapter 6). In Slovakia, similar policy initiatives have been initiated, most notably expressed through an attempt to lay the foundations for the Central European 'Silicon Valley' (see Chapter 7). In light of the above, the choice of the two regional case studies can easily be justified. The way research was carried out in Scotland and Slovakia will be now described in more detail.

Research methodology

The analytical framework described in the previous section has been applied to both Scottish and Slovak case studies. The research methods used were thus similar in both cases and included extensive desk research and substantial interviewing based on semi-structured interviews. In addition, in the Slovak case, information gathered through participant observation has been used in the thesis[2], while in the Scottish case two study visits were undertaken[3]. Only marginal differences appeared in the research strategy in Scotland and Slovakia, largely reflecting the different realities of the two

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[2] Office of the Government of the Slovak Republic (1994) and the Office for the Strategy of Development of Society, Science and Technology of the Slovak Republic (1995-1998).

regional cases and conditions under which the research was carried out (see below). Overall a balance between primary and secondary sources has been sought.

In line with the main objectives of the research, the effort focused on regional institutions and empirical validation of the claims related to their role in promoting economic development. Of prime interest were 'formal' institutions, mainly regional development agencies or *animateurs* claimed to be central to the regional renewal of less favoured regions (cf. Chapter 3). However, there was a conscious attempt to situate 'development agencies' in wider institutional contexts. Thus the first phase of research included the 'mapping' of the institutional environment in both Scotland and Slovakia, aiming not only at the identification of an *animateur* but also of other major institutional players. The process involved both web-based search and interviews with key informants, judged to be more important in the case of Scotland, where my initial knowledge of the region was limited. In the Slovak case, familiarity with the institutional environment was much higher and the initial mapping and identification of institutions was much easier given my previous work in the Slovak central administration. The identification process in Slovakia, nevertheless, proved to be challenging given the continuous institutional changes that were occurring throughout the research period[4].

On the basis of the 'mapping' exercise, a list of institutions and potential informants was compiled for each case study, comprising regional development agencies and their various branches/forms, government organisations, business leaders, trade unions, think-tanks and academics. A subsequent phase of research then included the extensive interviewing of representatives in the listed institutions[5]. In total, more than 90 interviews were undertaken in Slovakia, Scotland and England during the period 1999-2001 (see a *List of Interviews* in Appendix). Most interviews were undertaken in the form of semi-structured interviews, following a general format (see *Questionnaire* in Appendix), while allowing for minor adaptations reflecting the type

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[3] NEC semiconductor facility near Livingston in Central Scotland and CADENCE software centre in Alba Campus, Livingston (both in April 2000).
[4] In comparison, the Scottish institutional environment proved to be more stable. However, it should be noted that some significant institutional developments have been initiated in Scotland during and after the interview period that could not be fully reflected in the case study.
[5] In Scotland, in addition, two journalists were interviewed.

of institution and with respect to the position of the interviewees (area of competency, level of seniority, time available for interview, etc.).

The interviewing phase was organised as follows. Initially, a pilot study was undertaken in the North-East of England between January and March 2000, providing useful insights into challenges facing less-favoured regions in the UK context. It also proved useful practice in testing and developing interviewing techniques. In Scotland several initial interviews were undertaken in late February followed by a substantial interviewing period between late March to June 2000. In Slovakia the first set of interviews was undertaken in December 1999 and January 2000, followed by an intensive interviewing period in July 2000, revisited in January 2001 and completed in July 2001. This allowed for the re-interviewing of several key informants in an attempt to maintain pace with the rapidly changing institutional landscape in the country.

Despite applying similar methods in both the Scottish and Slovak case studies, slight differences between interviewing in Scotland and Slovakia should be acknowledged. Indeed, in Slovakia, I was usually considered an 'insider', being a former civil servant myself and having substantial formal and tacit knowledge of the country. Partly thanks to this, and partly due to the way the Slovak administration works, it was usually rather easy to set-up interviews with Slovak officials, often at very short notice. Interviews in Slovakia were also less formal and I was able to gain access to a considerable amount of information, some of which was of a sensitive nature[6]. Interviews were not tape-recorded. In comparison, most Scottish interviews were much more formal, interviewees agreed to be tape-recorded, but interviews usually took more time to organise (with longer notice). Overall, however, the response in both case studies from the interviewees was very positive and most interviews provided much valued empirical material for the thesis.

Information gathered through these interviews was complemented by various other sources. Wherever possible, formal presentations, public lectures, seminars and

[6] Reflecting this, in the majority of cases, the identity of the source will remain undisclosed in the text and instead referred to as 'interview with a Slovak official'. Wherever possible, the informant's organisation is identified.

conferences by important policy-makers or academics were attended. In addition, continuous press monitoring of Scotland and Slovakia was undertaken and, wherever possible, Internet sources were exploited. It is believed that regardless of the usual limitations of research of this kind (cf. Massey and Meegan, 1985; see also discussion in Chapter 3 of the thesis) the information gathered through the study provides valuable empirical material which seems to corroborate the theoretical arguments developed in Part I of the thesis. This empirical material will now be presented in Chapters 6 (Scotland) and 7 (Slovakia).

Chapter 6:

Case study: Scotland

'So the challenge for the new Scotland is to create a virtuous circle for business development and economic success by linking education, innovation and enterprise.'

Gordon Brown, Chancellor the Exchequer
(G. Brown, 1999, p.ix)

6.1 Introduction

Scotland is the first of the two regional case studies examined in this thesis. It represents a less favoured region at the economic and geographical periphery of 'Western' Europe. Having an economy dominated by coal mining, steel production and a shipbuilding industry, it was once a part of the British 'workshop of the world'. Throughout the 20th century, however, Scotland experienced the erosion of its traditional industrial base. This erosion dramatically accelerated in the late 1970s and 1980s through the process of de-industrialisation, which left Scotland in economic decline associated with high unemployment. For such a region, it would not be surprising if the arrival of the 'post-industrial' or 'knowledge-intensive' economy were accompanied by heightened expectations of regional economic reinvigoration. Importantly, since the late 1980s, the economic situation has indeed been improving to the extent that by the late 1990s Scotland could be seen as one of the best performing regions in the EU periphery. In part, Scotland seems to have achieved this by attracting a large share of foreign direct investment (FDI) within the UK and indeed the EU, especially in 'new economy' sectors such as electronics. The emergence of the 'Silicon Glen' phenomenon, representing 'one of the largest concentrations of high-technology industry outside the USA' (Devine, 1999, p.596), is seen by some as a sign of a transition from industrial to 'post-industrial' or 'knowledge economy' and such a transition is indeed regarded by Scottish policy makers as highly desirable. Believed to be the best method of achieving prosperity for Scottish people, the transformation to the competitive 'knowledge economy' has recently been explicitly defined by the Scottish administration as the ultimate strategic economic goal for Scotland. Meanwhile, Scottish Enterprise, the main economic development agency in (Lowland) Scotland, has been actively promoting such transformation, not least through its cluster-based programmes, very much akin to those promoted by the 'new regionalist' literature (cf. Chapter 3). Taken together, the above developments prompted speculations that Scotland could in fact be seen as a 'learning region' (cf. MacLeod, 1996, 2000) able to negotiate its economic trajectory within the emerging 'reflexive capitalism' (cf. Chapter 3).

This Chapter aims to examine such claims in the light of research questions formulated within the analytical framework as defined in the previous Chapter 5. The fundamental question to be addressed is whether Scotland can be seen as a region that can 'choose' its regional prosperity. In particular, attention will be focused on the issues related to Scottish institutions and their role in securing economic fortune for Scotland. More specifically, the role of Scottish Enterprise in promoting 'high road' development will be scrutinised. In addition, the significance of other factors determining the economic trajectories of Scotland need to be examined, in particular the historical legacies and the wider political economy. Finally, the question to what extent regional prosperity is shared *within* Scotland requires attention. In order to examine these questions, the Chapter is organised as follows.

Initially, section 6.2 will put Scotland into a long-term historical perspective. The section will emphasise the point that the region and its economy should be understood in the light of long-term social struggles. Seen from the Scottish perspective, some of these struggles were won, some lost. The significant, if contradictory, part of these struggles was the integration of Scotland into Britain three centuries ago. The section will argue that the Scottish economy (and Scotland more generally) both benefited and suffered as a result of these historical developments, which highlights the fact that historical legacies are significant for our understanding of its economic and political trajectories. Indeed, historical legacies (both structural economic and 'soft' institutional) determine to a large degree the current position of Scotland within the wider political economy. The role of the political economy in determining Scottish economic fortunes will then be examined in section 6.3 . The section will analyse Scotland's engagement with the UK state, Europe and the wider international political economy, pointing at both 'positive' (incentives) and 'negative' (constraints) aspects of such engagement. These aspects will then be found to be reflected in recent economic performance that will be reviewed in section 6.4 .

The section will also argue that as a result of the eroding position within 'socio-spatial divisions of labour' and 'socio-spatial flows of value', Scotland was transformed from being one of the 'hubs' of the world economy into a peripheral economy, increasingly dependent on the investment decisions of current global players. However, following devastating de-industrialisation in the late 1970s and 1980s, Scotland has seen signs of recovery with a relatively strong economic performance and historically low levels of unemployment. The factors behind this change will then be discussed. Particular attention will be given to Scottish institutions in an attempt to assess their impact (sections 6.5 and 6.6). It will be argued that although the power of Scotland's institutions is constrained by the wider political economy (cf. section 6.3), their influence on Scottish economic fortunes is not negligible. In particular, it could be argued that these institutions played an important role in securing a rather privileged fiscal position within the UK state. One of the areas where both the availability of resources and a strong institutional capacity is manifest may be seen in the example of Scottish Enterprise. Section 6.6 will be specifically devoted to this economic development agency, its strategy and its implementation efforts. The case of the 'Alba Centre' will be highlighted as a rather impressive example of Scottish Enterprise's engagement with the strategic objective of turning Scotland into a 'knowledge economy'. However, the above policy effort will subsequently be placed into the context of growing social and spatial inequalities within Scotland (section 6.7). Section 6.8 will summarise findings and formulate conclusions.

6.2 Historical legacies

As suggested in earlier Chapters of this thesis, history does matter in regional development, and this is clearly seen in the case of Scotland. The section aims to capture the most important economic, political and cultural factors that played a crucial role in Scottish history and that continue to have an important bearing on current Scottish economic development trajectories. In doing so it will also point at the close interlocking of political, economic and cultural processes (cf. Chapter 2) and the importance of the wider political economy dimensions in affecting regional trajectories (cf. Chapter 3). Putting historical accidents and contingencies aside, Scottish historic trajectories may be seen as a story of political, economic and cultural struggles, some of which were won, some lost and some remain unresolved.

The search for historical legacies has to go back to the 17th and the beginning of the 18th century when Scotland, then an independent kingdom, failed to establish itself as a colonial power. Eventually (and reluctantly) it had to accept the offer of a 'marriage of convenience' from its 'auld enemy' and stronger neighbour, England (Devine, 1999). From then on, the fate of Scotland was inextricably linked to that of England. Indeed, the *Act of Union* (1707) that united the two parliaments had far-reaching political, economic and cultural consequences for Scotland. Politically, Scotland lost its independence and sovereignty as the Parliament in Edinburgh was dissolved in return for Scottish participation in the Westminster Parliament, which from then on would determine the fate of the new country: Great Britain. Importantly, however, Scotland retained limited (but long-lasting) autonomy over its legal system, church and education (Paterson, 1994; Devine, 1999; Bogdanor, 1999). These institutions continued to play a significant role in terms of cultural legacies. Indeed, despite attempts to forge 'Britishness' these institutions helped to maintain the Scottish *national* identity (D. McCrone, 1992) and were part of a base around which the autonomy of modern Scotland has been constructed (Paterson, 1994). It is the economic aspect of the *Act of Union*, though, which had crucial implications for Scotland. Importantly, Scotland gained free access to the markets of England, the richest emerging industrial nation, and its growing colonial holdings (Bogdanor, 1999, p.9; Devine, 1999). This proved critical for Scotland's own industrialisation. Indeed, the first phase of the Industrial Revolution in Scotland (1750-1850; based on textiles) and the second phase (since 1830; iron, steel and shipbuilding) were both inextricably linked with export opportunities and the needs of a growing empire (Devine, 1999) and both dramatically transformed Scottish fortunes.

Scotland experienced an unprecedented rate of growth and emerged as an important part of the British 'workshop of the world'. Within two centuries, from a small and economically peripheral nation, Scotland had become a 'key player' in the global economy (Devine, 1999, p.252). It managed to position itself as one of the 'hubs' of the contemporary international division of labour and developed dominance in several key sectors including engineering (railway locomotives) and shipbuilding. The shipbuilding industry on the Clyde alone produced at its peak one-third of British output but almost a fifth of the world's tonnage (Devine, 1999, p.250).

The factors behind this tremendous economic success are usually attributed to the favourable geographical disposition of Lowland Scotland (unrivalled sea access to both Europe and Americas), the availability of capital and skills accumulated from previous rounds of accumulation (trade and merchants), the mobility and cost of labour and the favourable entrepreneurial atmosphere[1] that managed to capitalise on growing export market opportunities (Devine, 1999). These were complemented by important domestic technological innovations (famously, James Watt's steam power combined with spinning technology gave Scottish textile manufacturers an important competitive edge) but also by 'technology transfer' from England. Last but not least, the Scottish advance would have been impossible without critical natural endowments – large deposits of coal and ironstone in Lowland Scotland, which had the additional bonus of being close to ports, sources of labour in the towns and water transport (Devine, 1999, p.113). This combination of factors ensured that by the end of the 19th century Scotland had become an important industrial power, in some respects more industrialised than England. Its economy and society were transformed, and its population nearly doubled between 1851 and 1911, to reach a figure close to 5 million (Lee, 1995, p.24-26). At the centre of this population explosion were Glasgow and Edinburgh, which emerged as important European cities.

However, not everything went in Scotland's favour. First, despite the enormous population growth, the size of the domestic Scottish market was, and remains today,

[1] Some would argue that Calvinist culture was a critical factor in this (cf. Whatley, 1997; but see Cumbers, 1999, for a critique).

relatively small, thus limiting the potential for endogenous growth (interview Ashcroft, 2000; interview Hassan, 2000). Indeed, Scottish economic development was heavily based on a pro-export industrial structure sensitive to external markets. The second point is that although the periods of economic growth slowed-down somewhat, the historical trend of emigration from Scotland did not halt. Scots (including those of commerce, finance, insurance, professional occupations and students) were leaving their homeland in large numbers, mostly attracted by better opportunities elsewhere (England, America, Australia, etc.). With them, their skills, talents, knowledge and capital left too and subsequently nurtured countries that are today's Scottish competitors. It is unsurprising that this process was described as 'drawing away the life-blood of the nation' (cited in Devine, 1999, p.472). Third, despite unprecedented economic growth, Scotland was still lagging behind England, a feature that persists today, despite the subsequent relative decline of England as a superior industrial world power. Besides, the fruits of the relative economic success of Scotland did not spread to all members of society. The wages and standards of living of ordinary Scottish people remained lower than in England and urban poverty was widespread (Devine, 1999). The poor conditions of the working class of that time no doubt gave birth to the modern labour movement, which remains an important part of the Scottish polity even today (cf. interview White, STUC, 2000). From the economic point of view, however, the overall problem was that Scottish 'success' was based on a particular labour-intensive, pro-export heavy industry structure. While this structure was a source of success through the 18th and 19th centuries, it was severely tested in the 20th.

Indeed the 20th century brought new dramatic shifts in Scottish fortunes. Changing markets and growing competition from other industrialised nations, combined with the progressive depletion of coal and iron ore, left Scotland with a declining industry and growing economic problems (Lee, 1995). Defence orders during the First and Second World Wars only compounded the fate of the Scottish industrial structure, which was based on a small number of large, heavy industry outlets whose fortunes were dependent on sensitive markets. After the Second World War and with the retreat of the British Empire, those markets were rapidly shrinking. Post-war reconstruction probably in part compensated for the losses and sheltered (nationalised) Scottish industry from growing international competition (Lee, 1995; Devine, 1999). Indeed, Scotland took part in the prolonged post-war boom with a high rate of growth and low unemployment that accompanied the post-war compromise. Scotland benefited from the strong 'welfare state' to which both Labour and Tory governments were committed and enjoyed a good proportion of state investment (cf. Dunford, 1995). Standards of living were quickly rising as areas like education, health and other public services experienced sustained financial injections (Devine, 1999; Payne, 1996; Lee, 1995). Overall, the period after the Second World War saw the reduction of social as well as regional differences in the UK (Dunford, 1995). However, important economic cracks in this rosy picture started to appear in the late 1960s and had dramatic consequences for Scotland.

Meanwhile, it is useful to note that, due in part to the bargaining skills of subsequent Scottish Secretaries of State, Scotland usually secured funding on top of generous welfare state allocations (Devine, 1999), while often using the potential threat of Scottish nationalism as a pre-text (Bogdanor, 1999; see below). This threat, however, began to be realised in the late 1960s and 1970s when the Scottish National Party (SNP) advocated Scottish independence and showed its political muscle (Bogdanor, 1999, p.120-122, 126). The SNP gained momentum when rich oil and gas deposits were founds off Scottish shores, making the idea of an independent Scotland seem like an economically viable option in the context of rocketing oil prices and the growing economic difficulties of the British state (cf. Bogdanor, 1999, p.125-126). To stave off the separatist threat, the Labour governments of the 1970s were forced to consider *devolution*, but the project was buried after an unsuccessful referendum in 1979 amid both economic and political crises (Devine, 1999; Bogdanor, 1999; inter alia).

The general election of 1979 was a watershed for Scotland's (and the UK's) future not only economically but also politically and culturally. In economic terms, the incoming Thatcher government introduced a 'free market revolution' which included widespread privatisation, the de-regulation of capital, attacks on organised labour, pressure on labour flexibility, emphasis on supply-side and 'market failure' measures and the general withdrawal of the state from the economy. It may be argued that a de-regulated form of market economy and its accompanying pattern of economic restructuring largely favoured London and the South-East of England (Brown et al., 1998, p.76; see also Tomaney, 2000a), while having disproportionately negative effects on British industrial regions, including Scotland (Keaney and Hutton, 2000). Indeed, in the subsequent *de-industrialisation* (Martin and Rowthorn, 1986), whole economic sectors were wiped-out leaving the backbone of the Scottish economy in ruins. Meanwhile public services came under threat as Thatcher sought to eradicate 'dependency culture'. Ironically, this move made the Scots more than ever before directly dependent on the state as record sums of money had go to social security payments for the growing army of unemployed in the early 1980s (Devine, 1999).

Since then, Scotland's economy has slowly recovered (see section 6.4); nevertheless, de-industrialisation represented a major economic trauma that also had important implications for Scottish cultural and political life. Politically, Thatcher's market fundamentalism and perceived disrespect for Scotland as a 'partner' provoked widespread Scottish opposition (interview Hassan, 2000). There was also a growing realisation of the 'democratic deficit' as people in Scotland, increasingly voting for Labour, were subjected to a right-wing British government (see Paterson, 1994). This brought a renewed appeal for *devolution* and different parts of Scottish civil society started to coalesce around the issue (see section 6.5). Thatcher thus could be said to have played an important, if unintentional, role in Scottish nation building (cf. Devine, 1999). This set in motion processes which continue to have important implications for Scotland's political trajectory and prompted the 'comeback' of the Scottish nation (Nairn, 1981, 2000). Indeed, after the eventual fall of the Conservative government and the victory of New Labour in 1997, the window of opportunity for Scotland opened as Labour adopted a policy of *devolution*, including the creation of the Scottish Parliament (Bogdanor, 1999). Scottish aspirations have thus been fulfilled, at least for the time being, within a wider process of constitutional reform initiated since 1997, providing Scotland with new institutional and political power (see below). It also created room for the cultural 'reconstitution' of the Scottish nation (Nairn, 2000, p.13).

Economically, though, the process of dramatic de-industrialisation in the 1980s represented a final cut to the declining Scottish industrial pre-eminence. It signalled a decisive change in the position of Scotland's economy within the global division of labour and within the British and international political economy. This position within the wider political economy will be now explored in more detail in section 6.3 .

6.3 The wider political economy

The wider political economy is another important factor that, alongside historical legacies, has an important bearing on regional economic development. In line with the argument that has been developed in earlier Chapters, it may be argued that the wider political economy can represent both a challenge and an incentive for a given region. This section will try to disentangle the implications of the wider political economy for Scotland's economy. This is not an easy task, given that what is understood by the wider political economy entails the intermeshing of the institutions of capital, labour and state on various scales (cf. Chapters 2 and 3). In other words, Scotland is part of a multilevel and overlapping institutional landscape within which struggles over power, wealth and knowledge (cultural dominance) are being fought. Within this limited space only the most important of these wider political economy factors can be considered. These include the governing role of the state (the UK and EU in particular) and the power of capital and market forces within the broader national and international economy. These will now be examined in turn.

Scotland and the UK

First, it is important to establish Scotland's position within the context of the UK. As argued in the previous section, the 1707 *Act of Union*, after which Scotland became part of a much wider state, represents one of the most crucial historical legacies. Indeed, as argued in Chapter 3, the nation-state remains a significant factor in determining the fortune of regions. In the Scottish case, a closer look reveals just how much the fate of Scotland is interconnected with the British state as a whole. Indeed, despite the process of 'administrative devolution' and eventual 'political devolution' (see more in section 6.5), the UK state continues to shape conditions for Scottish development. 'Reserved matters' (i.e. areas of control retained by Westminster) include macro-economic management, social security, foreign affairs, defence, immigration and nationality, and business regulation (Bogdanor, 1999; Myles, 1999, p.39). Under the headings of macro-economic management and business regulation, all principal economically relevant policy decisions are taken by the central UK authorities in London. Thus regulation and de-regulation, nationalisation and privatisation, industrial relations and the entire financial system are still within the remit of the UK state. Both fiscal (taxation and expenditure) and monetary policies (interest rates) are set at the UK national level and are beyond the formal influence of Scotland. These areas, however, continue to have crucial implications for Scottish fortunes (interview Campbell, 2000; interview Ashcroft, 2000).

For instance, *interest rates* are set by the Bank of England with respect to the situation in the financial markets and the UK economy as a whole, although this may have uneven implications for regional development. Indeed, Scottish economists perceive UK macro-economic policy as being biased towards the South-East of England, where the bulk of the UK economy is concentrated (cf. interview Ashcroft, 2000). High interest rates, for instance, were thought to hurt the Scottish export-oriented manufacturing base (interview Hassan, 2000). A similar situation exists with *fiscal policy*. There are those who argue that the Scottish economy would be better off with taxation being more tailored (i.e. reduced) with regard to its competitors, such as Ireland (interview Ashcroft, 2000). Others believe that Scotland should be more proactive on the public expenditure side (Danson, and Gilmore, 2000; interview Paterson, 2000). None of this, however, can happen as the central UK government retains key powers in both areas. Devolution in 1999 changed little in this respect – the tax varying powers of the Scottish Parliament are very modest and their economic impact, if used at all, can be expected to be small (McCrone, 1999; Midwinter, 2000). Meanwhile, Scotland continues to be dependent on grants from the central UK government (Mair and McCould, 1999; Midwinter, 2000; see more below).

The power of the UK state is also clearly apparent in the case of oil and gas deposits off Scottish shores. Revenues from the North Sea shelf are collected directly by the

UK state and are usually not even included in Scottish GDP statistics (Peat and Boyle, 1999a). This, of course, continues to provide a strong argument for Scottish fiscal autonomy, if not political independence, despite the declining oil revenues experienced in recent years (see Midwinter, 2000, for a discussion). Another area where Scotland seems to have no formal power is the allocation of the government R&D and defence expenditure. These are usually driven by 'national' UK priorities, but, incidentally, they usually seem to be biased towards the more prosperous regions of the UK compounding their existing strengths in the 'knowledge-intensive' sectors at the expense of more peripheral regions. It is important to notice, however, that Scotland does not always emerge from these policies as a loser, and indeed it does benefit from some of this 'hidden form of regional subsidy' (see Gripaios, 2002, p.688; cf. discussion in Chapter 3 of this thesis).

More generally, the fortunes of the Scottish economy are strongly dependent on the fortunes of the UK economy as a whole (interview Hassan, 2000) and this is clearly visible when comparing the dynamics of GDP growth and unemployment (see section 6.4 ; cf. Peat and Boyle, 1999b, p.9). Besides, Scotland continues to be part of a broad 'core-periphery' geometry, or 'north-south' divide, that characterises the UK space-economy (Lewis and Townsend, 1989; Dunford, 1995; Mohan, 1999) underpinned, from the point of view of less favoured regions, by both capital-drain and brain-drain processes (cf. Chapter 3). To a limited extent, however, it could be argued that Scotland defies this economic gravity (see below).

Indeed, it is important to notice that the position of Scotland within the UK does not automatically represent a disadvantage. In fact, on a number of fronts this position has proven beneficial to Scotland. Importantly, being part of the UK also means sharing positive aspects such as overall political stability, market potential and, more recently, the economic dynamism that characterised the 1990s (see section 6.4 ; cf. interview Hassan, 2000). The UK national regulatory framework could also be said to have had positive impacts on areas like FDI, of which Scotland attracted an important share. In part, FDI was aided by UK regional policy incentives such as Regional Selective Assistance (RSA), from which Scotland benefits (interview Triquart, LIS, 2000). In addition, the already mentioned ability of Scotland to attract an important share of UK government expenditure represents an area where the Scottish engagement with the wider UK political economy could be seen as successful (see below). In fact, many observers would argue that Scotland enjoys somewhat preferential treatment within the UK at the expense of other regions (McLean, 2001a; Morgan, 2001; cf. Midwinter, 2002).

Indeed, historically Scotland has, through institutions such as the Scottish Office (headed by a Secretary of State), managed to negotiate a favourable deal with the central government (see section 6.5). A key part of the 'deal' is related to the size of UK government expenditure in Scotland. Much of this expenditure comes in the form of a grant determined by a 'block and formula' system[2] (Midwinter, 2000), which seems to put Scotland into a favourable fiscal position. For this reason, the size of the Scottish grant in general, and the 'formula' side of it (known as the *Barnett formula*) in particular, continues to provide a subject for speculation and heated debate (McCrone, 1999; Bogdanor, 1999; McLean, 2001a; Morgan, 2001; Midwinter, 2000, 2002; inter alia). Ironically, the controversial *Barnett formula* was introduced in the 1970s to bring more transparency into the process and in the long run to reduce Scotland's spending advantage (Midwinter, 2000, p.233; Mair and McCloud, 1999), however, it failed to do so (Mair and McCloud, 1999, p.78; Bogdanor, 1999, p.245-247). The Barnett formula is instead often considered as a key element of the Scottish funding advantage (cf. McLean, 2001a). Currently, the Scottish per capita expenditure advantage remains about 20% above the UK average (Mair and McCloud, 1999; Midwinter, 2002) and this has been the position 'for a great many years' (McCrone, 1999, p.117). Few observers disagree that Scotland, in part due to its particular geography and needs, deserves preferential treatment (McCrone, 1999, p.118-119). But neither opponents nor supporters of the current *status quo* are able to quantify these needs and associated costs (see Midwinter, 2002). Some call for a new fair 'needs assessment' across the UK (McCrone, 1999), but such a review seems to be too sensitive an issue politically (interview Watson, 2000; interview Jones, 2000). Thus, the current funding arrangements could be interpreted as the continuing successful engagement of Scotland within the wider UK political economy, envied by

2 Additional resources flow into Scotland via pensions, social security payments and agriculture programmes (see McCrone, 1999).

many less favoured regions in the UK (Morgan, 2001; *The Scotsman*, 12/11/2001). Clearly, this favourable fiscal position needs to be recognised as an important factor in explaining Scottish economic performance (see below). In any case, there is the clear realisation that Scotland receives more resources from the UK than it contributes (oil revenues included) to its budget[3] (McCrone, 1999; interview Ashcroft, 2000; interview Hassan, 2000).

This positive engagement of Scotland with the UK also has a political dimension. Throughout history, since the 1707 'marriage of convenience' with England, Scotland, accounting for only about 10% of the UK population, enjoyed the position of being a 'partner' within the British state. This translated into somewhat disproportionate political power, especially when compared to other UK regions. One of the visible manifestations of this power is what is often perceived as the over-representation of Scotland in the UK's House of Commons (see Bogdanor, 1999; Mitchell, 1999; inter alia). This paradox has become even more visible with the emergence of the autonomous Scottish Parliament, which arguably gives Scotland an additional power base (again, unrivalled by any other UK region). In fact, devolution itself can be seen as part of this successful 'negotiation', perhaps aided by the threat of nationalism. Indeed, the possibility of Scottish succession is a matter of concern for British political élites (see Rifkind, 1998); devolution as a form of concession may be seen as a means of countering that threat (cf. Bogdanor, 1999). Some would argue that there is also a narrower, party-political dimension in the effort of barring Scottish separatism. It has been claimed that the Labour Party in particular is keen to keep Scotland in the UK because it could not afford to lose the support of Scottish (mostly Labour) seats in Westminster (see Paterson, 1994 for a discussion). Coincidentally, with the arrival of New Labour, Scotland also enjoyed the 'largest group of Scottish MPs ever to sit in a British Cabinet' (Devine, 1999, p.602), which importantly include Gordon Brown, the Chancellor the Exchequer. Therefore, one could argue that Scottish interests at the UK level are currently well provisioned. Commentators agree, for instance, that the current favourable financial arrangements for Scotland are unlikely to be touched under the present political circumstances (*The Scotsman*, 16/7/2002). Indeed, Helen Liddell, the current Scotland Secretary, expressed her

[3] Scottish nationalists would probably dispute this point.

feelings rather well by asking, 'Do you honestly believe a Scottish chancellor would be enthusiastic about changing the Barnett Formula?' (cited in *The Scotsman*, 16/7/2002, p.1).

Scotland and Europe

Through its privileged position within the UK, Scotland also secured somewhat advantageous access to European policy-making. Even before devolution, the Scottish voice was heard through its 8 MEPs, dedicated organisations like *Scotland Europa* in Brussels or indeed through the UK delegations to EU negotiations that Scottish Secretaries were usually part of (see Burrows, 1999). With the creation of the Scottish Parliament and the Scottish Executive, however, the legitimate ability and power of Scotland to influence European affairs is likely to be boosted (cf. Rifkind, 1998; Burrows, 1999;). Scotland's role within the Council of Regions, for instance, is likely to be strengthened, while official representation in Brussels can be enhanced (cf. A.J. McLeod, 1999). The effects of such endeavour will probably be limited but not insignificant – especially when compared with the options available to other less-favoured regions in the UK.

Despite this effort, it is unrealistic to expect that Scotland would be able to exercise a major influence on the EU agenda. From the economic point of view, this agenda is centred round the project of neo-liberal market integration, which in turn has major implications for less-favoured regions, including Scotland (cf. Amin and Tomaney, 1995a). Indeed the European regulatory framework includes competition policy and trade policy, with both having a strong regional impact (Wishlade, 2001; Peters, 1995). The EU also regulates government deficits and thus constrains government spending in its member states, therefore ultimately limiting the size of regional policy countries such as the UK can offer to its less-favoured regions. Further constraints may arise on the monetary side should the UK choose to join the Euro, thus completing its market integration with Europe. Neo-liberal market integration, however, seems to favour the most advanced European regions, a pattern that is compounded by EU programmes biased towards 'core' regions at the further expense of less-favoured regions; as a result, a powerful cumulative causation process arises (Amin and Tomaney, 1995b).

On the other hand, Europe offers some opportunities and incentives for less-favoured regions (LFRs). Importantly for Scotland, access to the European market has been a critical factor for the attraction of foreign direct investment (FDI). Europe now accounts for a major part of all Scottish manufacturing exports (cf. Peat and Boyle, 1999a) and the situation of European markets (especially France and Germany) thus has impact on Scottish export performance (Scottish Economic Report, June, 2002, p.5). The EU also offers direct financial incentives for its less-favoured regions and countries, most notably through CAP and the Structural Funds. Scotland was a net beneficiary of these EU policies (interview Hassan, 2000). In terms of Structural Funds, Objective 1 (Highlands and Islands), Objective 2 (Central Belt), and 5b (rural areas) were all available in Scotland to compensate for increased market pressures and to cope with the economic transformation (see Danson et al., 1999; Lever and Moore, 1986). However, as Amin and Tomaney have argued (1995b, p.20), the total expenditure of European Structural Funds is very small compared to the EU's GDP and it cannot be expected that it will dramatically change the fortunes of less-favoured regions, or to off set centripetal market forces (see discussion in Chapter 8 of this thesis).

Furthermore, with the advent of Eastern enlargement, EU regional policy is under increased pressure (Bachtler and Downes, 2001). Scotland will be one of the regions which will lose part of its share of Structural Funds in favour of regions in Central and Eastern Europe (interview Hassan, 2000; see Chapter 8). This may potentially have negative consequences for some areas of Scotland that very much depend on such aid. Besides these immediate financial implications, the collapse of state-socialism in Central and Eastern Europe and the opening of the EU to the East have created a new set of challenges and opportunities. These include the widening of market opportunities but also increased competition from the 'East'. In particular, the cheap but well educated labour force in former state-socialist countries is a matter of concern for Scotland, as inter-regional competition for inward investment intensifies (cf. interview Hassan, 2000). There is the clear realisation of the fact that Scottish workers are part of the international competition, resulting in lower labour standards (interview White, STUC, 2000). More broadly, Scotland may partake on the re-drawing of the map of European divisions of labour and value networks (cf. Smith et al., 2002; see also Chapter 4). In this process, however, international capital will play a key role, with Scotland having only limited possibilities to put it into effect. International capital and the wider international political economy thus represents another critical dimension of the wider political economy that needs to be taken into consideration.

Scotland, international capital and wider international political economy

Indeed, the role of international capital and the wider international political economy in which Scotland is anchored has to be readily acknowledged. Throughout history (see section 6.2) Scotland was, and until now is, 'a small, open economy' (Scottish Economic Report, June, 2002, p.2) whose fortunes critically depend on successful engagement within the wider international political economy. The imperatives of the global political economy, however, are completely beyond the control or influence of Scotland (Keaney and Hutton, 2000). Indeed, it has to be acknowledged that Scotland is but a small part of a complex global production system. In recent decades, the position of the Scottish economy within the international division of labour has changed dramatically, determined by the rounds of capital investment and divestment (cf. Hood and Young, 1982; McDermott, 1989), while Scottish firms have faced a series of mergers and acquisitions (Ashcroft and Love, 1993). This latter process accelerated in the late 1980s, rendering the Scottish economy more and more dependent on outside control (see also Boyle et al., 1989), representing a particular mode of integration within the new international division of labour. Within this division of labour Scotland emerges at best as a semi-peripheral economy (cf. Henderson, 1989) characterised by particular (largely branch-plant) investment and trade patterns typical of less-favoured regions. This position may further be compounded by the EU and wider international regulatory environments (cf. Peters, 1995; Amin and Tomaney, 1995a).

Beyond productive capital, one also has to acknowledge the role of international *financial capital* and its impact on regional economies like Scotland. One of the most visible examples of this impact was the fiscal crisis of the British state in the 1970s (Keaney and Hutton, 2000) and the imposition of IMF rules that heavily curtailed the ability of the state to intervene in problematic regions. The subsequent Thatcherite answer to this crisis and its consequences for Scotland are well known (see Keaney and Hutton, 2000; see also section 6.2). Today, the sense of crisis is over, but the UK (alongside any other nation-state) continues to be dependent on the imperatives of the international financial markets, which usually translate into tight monetary and fiscal policies. These in turn have an impact on less-favoured regions. The UK government, for instance, effectively controls the level of public expenditure in post-devolution Scotland (Midwinter, 2000) and may be seen as 'transferring the fiscal squeeze to Scotland' (Keaney and Hutton, 2000, p.467). This 'fiscal squeeze', of course, has numerous implications for Scotland and a direct effect on public services (see also McCrone, 1999). Thus, directly or indirectly, Scotland is exposed to the workings of the wider international political economy and the imperatives of international capital. It would be inappropriate, however, to portray Scotland as a mere victim of international political economy. Indeed, on several fronts Scotland successfully engages with the international marketplace and this is reflected in the Scottish economic performance to which we now turn.

6.4 Economic performance

Scottish economic performance in recent decades can be seen in simple terms as that of economic decline and subsequent regeneration (Lee, 1995). Underneath such generalised terms, however, Scotland's economy has experienced important twists and turns and massive structural transformation (Payne, 1996), while changing its position within the UK and the international division of labour. This section will seek to trace the major dynamics and trends within the Scottish economy in the past 30 years or so, and compare its recent performance with the rest of the UK and Europe.

After the crises of the 1970s and the economic trauma of the early 1980s that disproportionately hit old industrial regions, the economy of Scotland was severely affected. Following the UK-wide recession of the early 1980s, unemployment in Scotland stood at 15.4% in 1984 (Scottish Economic Bulletin, No. 58, 1999, p.67), little helped by the then booming oil industry. In fact, the oil industry itself provided Scotland with an unpleasant shock in 1985 when OPEC abandoned its quota system and the price of oil fell from $27 to $8 dollars per barrel (Lee, 1995, p. 104). This had further repercussions for the local economy (see Lee, 1995, p.104-105) and curbed hopes that North Sea oil could produce lasting positive over spill effects for the Scottish economy as a whole. As Payne (1996, p.33) suggested, '[t]he great North Sea oil bonanza has come and gone without making any significant impression on the structure of the Scottish economy'.

The traditional structure of the Scottish economy, meanwhile, was faltering. De-industrialisation crippled Scottish manufacturing and sectors such as coalmining, steel making and shipbuilding, which were once the backbone of Scottish economic success and a source of pride, went into a deep crisis (Payne, 1996, p.22; Devine, 1999). This was reflected in the share of manufacturing employment as it fell from 30.3% in 1971 to a mere 15.6% in 1996 (Wood, 1999). Meanwhile, as already mentioned, the patterns of ownership have changed as external control of the Scottish economy increased through a series of mergers and acquisitions (Ashcroft, 1988; Ashcroft and Love, 1993; Lee, 1995, p.110, 124-5), which affected Scotland's position within national and international divisions of labour and value chains. As a result, Scotland is far from being a 'key' player within the global economy; rather, the situation has reversed, as the Scottish economy is increasingly dependent on the investment decisions of current global players.

Against the background of this painful period in Scottish economic history, however, a recovery has been on the way. Indeed, since the mid-1980s unemployment has been steadily declining and was almost halved from nearly 15% to 7.6% in the decade between 1987 and 1998 (Scottish Economic Bulletin, No. 58, 1999, p.67). Since 1998, unemployment in Scotland has declined further and in the spring of 2001 reached a historically low level of less than 6% (Scottish Economic Report, June

2002, p.60) in line with the overall UK trend[4]. Scottish GDP trends were also encouraging as its economy enjoyed periods of dynamic growth and in the early 1990s in fact escaped the recession that hit the UK economy (Peat and Boyle, 1999b, p.8; see also Scottish Economic Report, January 2000, p.23, Chart 1.7b).

Two main economic causes lay behind this remarkable recovery. One is associated with a rapid growth in the service sector, the other with the partial recovery of manufacturing[5]. Both aspects will now be examined in turn. First, it is important to notice that the *service sector* was the fastest growing and best job creating sector within the Scottish economy since the 1970s, as Scotland was effectively transformed into a 'service economy'. In terms of GDP in 1996, agriculture, forestry and fishing contributed 3%, the construction industry 6%, mining, manufacturing and utilities sectors nearly 28% while services accounted for about 63% of the Scottish economy (Peat and Boyle, 1999b, p.17). A similar pattern can be found regarding the employment structure, with 15 out of 20 Scottish workers employed in services. This massive switch in Scotland 'from making things to providing services' (Wood, 1999, p.120) may be said to be consistent with wider trends in advanced capitalist countries (Payne, 1996, p.23; cf. Chapter 2 of this thesis), while making the structure of the Scottish economy much more similar to that of the rest of the UK (Payne, 1996, p.24; Peat and Boyle, 1999a).

There are some Scottish particularities, however, that to some extent explain Scotland's improvement in economic performance in comparison with other LFRs in the UK. One is that Scotland retained a higher share of *public services*, accounting for 22% of Scottish GDP in 1996 (as compared to the UK average of 18% (Peat and Boyle, 1999b, p.16), perhaps reflecting higher public expenditure levels in Scotland (see above). Education, health and social services alone account for about 15%, while public administration and defence contribute together about 7% to the Scottish GDP (Peat and Boyle, 1999b, p.14-15).

[4] UK official unemployment (ILO methodology) stood at a historical low of less than 5% at that point (Scottish Economic Report, June 2002, p.60).
[5] An additional significant factor was the recovery of the North Sea oil industry. The Scottish Executive estimated that the contribution of oil equals around 10% of Scottish GDP (GERS, 1999).

Another particularity of the Scottish economy, especially vis-à-vis other less-favoured regions in the UK, is the relative strength of its financial and business services. Indeed, business and financial services alone account for about 20% of Scottish GDP and 14% of all jobs, i.e. nearly as much as the whole manufacturing sector (Wood, 1999, p.118). Business and financial services recorded one of the biggest increases in their GDP share in Scotland in the decade from 1986 to 1996 (Peat and Boyle, 1999b, p.14). Some of this increase could be attributed to the proliferation of rather low-value business services, in particular call centres, to the extent that Scotland is being presented as the 'call centre capital of Europe' (interview Triquart, LIS, 2000). However, there are signs that more sophisticated services are emerging in the Scottish economy, including software companies (interview Ashcroft, 2000).

Finally, financial services represent a real 'jewel in the crown' of the Scottish service sector. Indeed, Edinburgh is said to be the second most important financial centre in the UK after London, while Edinburgh and Glasgow combined are claimed to rank as the 6th top fund management centre in Europe (SFE, n.d., p.14-15). Several factors lie behind this strength in the Scottish financial sector. It seems that the sector has managed to successfully build upon a nineteenth-century legacy (interview Ashcroft, 2000; SFE, n.d.), exploiting opportunities arising from the de-regulation and internationalisation of business, as well as capitalising on the 'coming of oil' and the increasing demand for financial services from manufacturing firms (Payne, 1996, p.23). It is possible to assume that within increasing socio-spatial divisions of labour, Edinburgh has managed to create a certain 'critical mass' or 'agglomeration' in finance (Turok and Bailey, 2001), in part assisted by the intervention of Scottish Enterprise[6]. One way or another, financial services now form an important part of the Scottish economy and the Scottish economic success story of the 1990s (Peat and Boyle, 1999a) and could be seen as an example of beneficial integration with the wider political economy.

The partial recovery of *manufacturing* was the second major factor behind the recent Scottish economic performance. In particular, the relative strength of the new, inward investment-led electronics sector played a significant role. It is often heralded as an example of the successful attraction of the 'new economy' or 'knowledge economy', but perhaps more realistically it could be seen as a part of the 're-industrialisation' of Scotland (cf. interview Ashcroft, 2000). The central belt of Scotland where most of this investment is located is nevertheless being referred to as 'Silicon Glen' (see Turok, 1993), evoking the image of a Scottish Silicon Valley[7]. Originally attracting several individual US multinational companies, such as IBM (Haug, 1986), Silicon Glen has subsequently grown into a major platform for the production of semiconductors, computers and electronic equipment in Europe and is being considered 'one of the largest concentrations of high-technology industry outside USA' (Devine, 1999, p.596). According to estimates of Scottish Enterprise, Silicon Glen produces over 35% of Europe's personal computers, 65% of automatic teller machines (SE, 1999a, p.11). Much of this production is destined for the UK and European markets thus forming an important part of the Scottish export performance[8] (cf. Hood, 1999, p.40-41). The factors cited behind this success include access to EU markets combined with low factor costs (relatively cheap labour), the UK government's regional policy (including generous financial assistance), accompanied by the ready availability of production facilities and infrastructure (Payne, 1996, p.26; Peters, 1995). EU regional incentives also played a role, while factors such as language and cultural similarities should not be underestimated either (cf. Peters, 1995). On the top of this, the role of economic development agencies in facilitating the process of inward investment needs to be taken into account and this point will be elaborated upon later in section 6.6 .

Meanwhile, it has to be acknowledged that Silicon Glen also represents a major economic policy dilemma for Scotland. Importantly, the extent to which this concentration of foreign-owned production facilities is embedded in local economic tissue is hotly debated (Turok, 1993; McCann, 1997; Turok, 1997; inter alia). The

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[6] Scottish Enterprise was instrumental in the creation of Scottish Financial Enterprise, whose purpose was to bring together the major institutions and collectively promote Scotland as a key European financial centre (Moore, 1995, p.237).
[7] *Glen* is a Scottish word for *valley*.
[8] About 70% of total Scottish exports are manufactured goods. Within this category, the two main export articles were whisky, accounting for 12.4% of manufactured exports in 1996, and office machinery (including computers and computer-related products), accounting for 37.1% (Hood, 1999, p.40-41).

danger is that the fortunes of such an economic structure are overly dependent on external decisions and on global marketplace conditions. Indeed, the volatile global economic environment in general, and the recent crash of the 'new economy' stocks in particular, have already impacted on the Scottish economy, pushing it into a recession in 2002. Between 2000 and 2002, the electronics sector in Scotland experienced a series of closures and redundancies prompting doubts about the sustainability of the Silicon Glen (*The Financial Times*, 25/4/2001, *The Scotsman*, 5/7/2002). The impact of the recent global economic slowdown on the Scottish economy probably should not be dramatised, but it cannot be underestimated either. Indeed, the concerns over the fragility of the lower-value end of the electronics industry that currently dominates Silicon Glen has prompted Scottish policy makers to intensify efforts to move Scotland up the value chains and to embrace 'high road' development (see sections 6.5 and 6.6 below).

However, these concerns aside, Scottish economic performance is observed with envy by other less-favoured regions in the UK. Indeed, measured in terms of regional GDP per capita, Scotland performs rather well, but this needs to be seen as part of longer-term development. In the period after the Second World War until the 1970s, Scotland recorded a strong convergence towards the UK average of GDP per capita as part of the post-war economic boom, and was probably aided in this by sustained higher levels of public expenditure. This tendency has subsequently been replaced by stagnation or even relative decline since the mid-1970s and during the 1980s. However, since the end of the 1980s and throughout the 1990s, Scottish GDP per capita showed a renewed tendency to catch up with the UK average (Lee, 1995, p.56). In 1995 Scottish GDP reached parity with the UK average (Scottish Economic Bulletin, No 58, 1999, p.73) and since then it has remained close to that average. This, of course, still represents a considerable lag behind the richest part of the UK (the South-East of England), which historically is 10% to 20% above the UK average. Nevertheless, the Scottish position embodies an important advantage vis-à-vis other old industrial regions of the UK that seem to be falling behind (Lee, 1995, p.56-57). Furthermore, the Scottish economy with its 98% of EU GDP per capita (at PPS) compares favourably with other regions of the European periphery (see also *Regional Trends*, 2001, p.32-33). In fact, it could be argued that Scotland is probably one of the best performing regions in the EU periphery. To what extent this success can be attributed to Scottish 'institutional thickness' and its 'learning region' strategies will now be discussed in the two subsequent sections. The first will examine the Scottish institutional landscape more broadly, while the second will focus on the activities of the regional 'animateur' of (Lowland) Scotland - Scottish Enterprise.

6.5 The institutional landscape

This section aims to provide an insight into the Scottish institutional landscape in an attempt to assess its potential role in shaping the economic trajectory of Scotland. In line with the theoretical arguments developed in Part I of the thesis, the section will argue that the institutions of Scotland should be seen as the objects, subjects and outcomes of social struggles, operating within the limits of historical legacies and the wider political economy. The Scottish case nevertheless demonstrates that building on the strengths of the past and an active engagement with the wider political economy can bring limited, but not negligible, benefits. In the case of Scotland, this is probably best manifested in the example of the aforementioned successful lobbying of Scotland for a higher share of public expenditure within the UK. Indeed, it could be argued that Scottish 'institutional thickness' operates on the basis of a 'common agenda', whose purpose is to attain 'the best deal for Scotland' (cf. MacLeod, 1997, p.301). This section will first briefly review Scottish institutional development in the wider historic context, while also paying attention to the lobbying power of Scottish institutions and their impact on the economy of Scotland. The section will then discuss the post-devolution institutional landscape and more recent policies that aim to transform Scotland into a 'knowledge economy'.

Institutional development in context

In line with the arguments made earlier, this enquiry into the Scottish institutional landscape will start by acknowledging the importance of the historical context in which they were shaped. Indeed, the story of Scottish institutions provides a good example of how institutions can be seen as being objects, subjects and outcomes of social struggles over power, wealth and knowledge (or cultural dominance). In the Scottish case, institutional development can be seen as part of the struggle of the Scottish nation for survival and development, economically, politically and culturally.

As already mentioned in a previous section (6.2), the *Act of Union* of 1707 left a heavy imprint on the institutional landscape of Scotland, when political sovereignty was exchanged for the economic benefits offered by a stronger neighbour. Nevertheless, Scotland retained autonomy in areas like law, education and the church (Paterson, 1994) and these no doubt played a role in maintaining the Scottish national identity despite the absence of a (Scottish) state (McCrone, 1992). As a result, the Scottish nation probably never lost its sense of belonging and formulating its own interests (see Paterson, 1994; Bogdanor, 1999). These national interests started to surface with increased intensity in the course of the 19th century, a trend that had parallels in other small nations in Europe. However, as Paterson (1994, p. 62) observed, the key difference was that Scottish demands largely worked. Thus out of nationalist discontent with the alleged neglect of Scottish business, a 'managerial solution' was found by the British state, and the modern *Scottish Office* was inaugurated in 1885, quickly becoming the focus of all Scottish campaigning (Paterson, 1994, p.62; Bogdanor, 1999, p.111). The Scottish Office subsequently played a crucial role in building Scottish institutional structures during the 20th century, especially after the position of the Scottish Secretary was upgraded to Secretary of State in 1926 (Paterson, 1994, p.107) and new roles were attributed to it. The Office itself moved from London to Edinburgh in 1939 (Paterson, 1994; MacLeod, 1997, p.301; Bogdanor, 1999, p.111) and subsequent Secretaries of State in effect turned it into 'Scotland's government' (Paterson, 1994, p.109) and the 'mouthpiece of Scottish civil society' (ibid, p.111).

The critical question, however, is whether the Scottish Office could do something about the growing cracks in Scottish manufacturing, apparent since the beginning of the 20th century. Formally, it did not have economic policy responsibilities, but in reality it had a great deal of influence over the Scottish economy. One vehicle for this was a regional policy that the Scottish Office helped to establish on the UK level and influenced its shape through its policy networks back in the 1930s. The importance of this regional policy, however, fully emerged only after the Second World War. Under post-war 'welfare state' arrangements, Scotland benefited from generous regional redistribution within the UK state (see Paterson, 1994).

The Scottish Office meanwhile played an important role in further strengthening Scottish institutional tissue. Back in the 1930s the Scottish Office encouraged the creation of a cluster of several distinctively Scottish bodies. Among them was the *Scottish National Development Council* (SNDC), whose aim was to promote industrial renewal (ibid, p.110) and which in turn formed a *Scottish Economic Committee* that became the focus for Scottish thinking on the economy. In 1946 the SNDC fused with the *Industry Committee* (part of the Council of State established by the agile Scottish Secretary of State Thomas Johnston during the war years) to form the *Scottish Council for Development and Industry* (see Paterson, 1994, p.119). The Scottish Council for Development and Industry (SCDI; surviving under that name until today) subsequently became an institution through which a consensus on the issues of the Scottish economy has been sought among major societal players (interview Duff, SCDI, 2000).

In the post-war period, the Scottish Office and SCDI worked together on a number of projects supporting the development of the Scottish infrastructure (see Paterson, 1994, p.120) and inward investment attraction (interview Duff, SCDI, 2000). Moreover, they made lasting institutional changes. *The Highlands and Islands Development Board* (the first regional development agency in the UK) was established in 1965. The Board's role was to enable the sparsely populated Highlands and Islands of Scotland to 'improve its economic and social conditions' (Grassie, 1983, p.109) in recognition of particular challenges this part of Scotland and its people were facing (see Turnock, 1974). Ten years later, the SCDI and the Scottish Office successfully lobbied for the establishment of the *Scottish Development Agency* (SDA) to support the faltering economy in Lowland Scotland (Young and Hood, 1984, p. 47-51; Paterson, 1994, p.120; MacLeod, 2000, p.226; Moore, 1995). Both agencies (under different names and in different forms) still survive today and form the backbone of the current economic development infrastructure in Scotland (see below).

Within the Scottish Office itself a new department, the *Scottish Economic Planning Department*, was formed in 1973 and was later to be renamed the *Industry Department for Scotland* (Young and Hood, 1984, p.46). Meanwhile, 1975 has been described as a watershed in terms of the Scottish Secretary's powers in industrial matters, as the administration of the various schemes of regional assistance was transferred from the UK Department of Trade and Industry to the Scottish Secretary of State (Young and Hood, 1984). This could be seen as formal confirmation of the fact that between 1945 and the mid-1970s Scottish economic policy was in fact 'indigenous', with the Scottish Office and its policy network influencing directly or indirectly important policy aspects from design to implementation (cf. Paterson, 1994, p.122). The success of this institutional and policy reform effort, however, has to be measured against economic outcomes; Paterson made an appropriate comment when he observed that, 'the Scottish economy did continue to decline, relative to its main competitors, and in that sense these reformers could be said to have failed, although it probably did not decline as far as it would have done without their policies' (1994, p. 122).

A further important aspect of these policies is that Scotland managed to secure above-average public expenditure in the UK and Scottish institutions played an important role in this process. In particular, successive Scottish Secretaries of State were instrumental in negotiating deals with the British state. Perhaps the first Secretary of State to make full use of his lobbying position was Thomas Johnston (Bogdanor, 1999, p.112), who, according to one observer,

> 'would impress on the [cabinet] committee that there was a strong nationalist movement in Scotland and it could be a potential danger if it grew through lack of attention to Scottish interests . . . by dint of cajoling, persuasion, plus some slight exaggeration of the grievances fertilising the Scottish Nationalist movement, he got his schemes through after three or so committee meetings' (cited in Bogdanor, 1999, p.112-113).

Johnston's successors continued to apply similar tactics and successfully lobbied for additional resources on top of generous welfare state redistribution in post-war Britain. As one commentator admitted, 'nobody bullied better' (Nelson, 2002). Even under Conservative rule, Scottish Secretaries of State saw their role as 'getting the best deal for Scotland' (MacLeod, 1997, p.301). The introduction of the *Barnett formula* in the late 1970s was aimed at curbing Scottish financial demands and indeed it reduced the extent to which the Secretary of State could negotiate to Scotland's advantage (Bogdanor, 1999, p.114). Nevertheless, this did not lead to either a convergence of public expenditure levels between Scotland and England (see section 6.3 above), or eliminate instances resulting in 'the formula occasionally being bypassed' (McCrone, 1999, p.121). Again, according to McCrone (1999), it was the successful advocacy of the Secretaries of State which was the 'major factor' in presenting 'particularly compelling needs' (ibid, p.121). It could be safely argued, then, that the persistence of Scottish institutional actors in pursuing Scottish interests led to tangible outcomes for Scotland in the form of extra financial resources. This favourable financial position further nurtured the expanding Scottish institutional edifice. By the beginning of the 1980s, Scottish 'reformers' managed to create a dense institutional network and rich policy framework for economic development promotion (see Hood and Young, 1984) as part of evolving 'administrative devolution' (Keating, 1976) from the UK central state.

However, much of this incrementally acquired autonomy in economic and other spheres of policy came under serious threat under Conservative rule as the 'political conflict' between (social-democratic) Scotland and (right-wing) England ensued (Paterson, 1994, p.168). As we have seen in the previous Chapters, this conflict also had an important economic dimension, and compounded the perception of a 'threat' to Scotland (ibid, 169; D.McCrone, 1992; Marr, 1992). This threat was far from symbolic for key Scottish institutions. In Thatcher's eyes, the Scottish Office was just an 'added layer of bureaucracy' (cited in Tomaney, 2000a) but it was probably too risky to abolish it (see Paterson, 1994, p. 176). The SDA, the most important economic development arm of the Scottish Office, however, was *nearly* 'simply abolished' (Fairley and Lloyd, 1995a, p.61). Eventually it was transformed in 1991 into *Scottish Enterprise* (SE) with *Scottish Enterprise National* (SEN) as a core and fragmented network of 13 business-led *Local Enterprise Councils* (LECs). The priorities of these new bodies have been re-aligned with the government's market ethos[9] (Danson et al., 1989; Moore, 1995; MacLeod, 1996, 2000; Fairley and Lloyd, 1995a, 1995b; see more in section 6.6).

On the institutional front, however, the pressures from the centre were met with growing resistance in Scotland. The Scottish Trade Union Convention (STUC), for instance, led the *Standing Commission on the Scottish Economy* amid 'stern resistance' to Thatcherite policies and early threats to dissolve the SDA (MacLeod, 2000, p.226). More importantly, however, the overall constitutional position of Scotland within the UK started to be debated. First, in 1988, 'A Claim of Right for Scotland' was produced by the *Campaign for a Scottish Assembly*, demanding the establishment of a Scottish Assembly (Edwards, 1989). Subsequently the *Scottish Constitutional Convention* was formed in 1989 (Paterson, 1994, p.176-177), a body which brought together the Labour and Liberal Democrat parties in Scotland, Scottish trade unions, churches and community organisations among others in a remarkable demonstration of the growing consensus within Scotland on the need for such an assembly. In 1995 the Convention eventually produced *Scotland's Parliament: Scotland's Right*, demanding a powerful Scottish Parliament (Bogdanor, 1999, p.196-197; Tomaney, 2000a). These proposals were subsequently firmly enshrined into New Labour's 1997 manifesto and, after its election, the party fulfilled its pledges. The *Scotland Act* was quickly drafted, following an endorsing referendum in Scotland in 1997. According to Nairn (2000) the referendum was a 'near-unanimous development' (ibid, p.219) as 'most of "the nation" was involved' (ibid, p.218). The Scottish Parliament eventually came into being after founding elections in 1999, significantly changing the Scottish institutional landscape (cf. Hassan, 1999).

Scotland's institutional and policy landscape after devolution

That devolution was introduced by New Labour[10] is regarded as the most important constitutional change since the 1707 *Act of Union* (cf. Bogdanor, 1999). Although its

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[9] Part of this market-led approach was the attraction of foreign direct investment into Scotland, and a dedicated agency for this purpose was established - *Locate in Scotland* (see below).

[10] The creation of the Scottish Parliament was accompanied by the establishment of (less powerful) Assemblies in both Wales and Northern Ireland.

overall impact on the future of Scotland and the UK remains to be seen, there are immediate implications for the way Scottish institutions now operate.

Since its inauguration in July 1999, the newly established Scottish Parliament stands at the heart of the new institutional landscape and policy-making in Scotland. The 129 member-strong body, democratically accountable to the Scottish electorate, gained primary law-making powers within the scope of the devolved agenda. It ended the era of 'technocratic government' (Paterson, 1994) in Scotland by taking democratic control over the budget, functions and administrative apparatus of the Scottish Office (see Hassan, 1999). The Scottish Office itself (renamed the Scotland Office), which was a key institution of Scottish autonomy until 1999, was given only a marginal (and unclear) role in the post-devolution settlement. Meanwhile, an executive arm of the Scottish Parliament was created, the Scottish Executive, which in effect acts as the Scottish government (see Hassan, 1999).

An important feature of the Scottish Parliament is that it is intended to be a more democratic and inclusive institution, while placing emphasis on 'consensual politics'. It could be argued that a historic consensus of key parts of Scottish society were sought and found on the matter of devolution, and this is reflected in the design of the Scottish Parliament (cf. Paterson, 1994, p.176). Indeed, the Parliament was conceived not as a closed-door body but as an institution open to all members of Scottish civil society. One manifestation of this principle is the establishment of 16 parliamentary committees covering a wide-range of areas under parliamentary jurisdiction (Paterson et al., 2001), which are obliged to consult heavily with the relevant sections of Scottish society, including businesses, trade unions and voluntary organisations (interview Watson, MSP, 2000). At the same time, the composition of the Parliament itself could be said to be more representative, as a combination of *majority* and *proportional* voting systems was used. Indeed, the political composition of the Scottish Parliament is more colourful then its Westminster counterpart (Paterson et al., 2001; Tomaney, 2000a). This had immediate implications for the emerging Scottish polity.

Indeed, in the historic Scottish Parliamentary elections of 1999, SNP gains deprived the winning Labour Party of an outright majority, thus forcing it to form a coalition government with the Liberal Democrats (see Paterson et al., 2001 for a detailed analysis of election results). This in itself is an important development as a more diverse assembly (Paterson, 1998) opens room for a potentially more innovative and inclusive governance. In addition, it is expected that devolution will increase the scope for distinctive 'Scottish' policies (cf. interview Ashcroft, 2000). It could be argued that signs of such policy distinctiveness have indeed been emerging as Scotland has already deviated from the policy framework implemented in the rest of the UK on several points. Importantly, a political compromise had to be sought in Scotland on the sensitive issue of university fees introduced in the rest of Britain, resulting in a specific Scottish solution to the problem[11] (interview Hassan, 2000). Scotland's policy also diverged from that implemented by New Labour in England and Wales on issues like free care for the elderly and salary increases for teachers, representing another specific Scottish policy dimension. Such policy specifics can be implemented because the Scottish Parliament has the freedom to decide the allocation of the grant received from the central UK government, according to its own spending priorities (interview Watson, MSP, 2000). However, it is expected that the real autonomy of the Scottish Parliament will only fully be tested when different political parties are in control in Edinburgh and Westminster (cf. Paterson, 1994; interview Paterson, 2000). Meanwhile, it remains to be seen if, in the longer term, the Parliament will deliver a kind of 'new politics' (Paterson et al., 2001) and the 'different future' (Hassan and Warhurst, 1999) expected by Scottish voters. In fact, from a sceptical point of view it could be argued that the new Scottish Parliament will, in delivering such 'futures', face considerable limitations.

As already argued in section 6.3, post-devolution Scotland remains firmly constrained by the British state, the European Union and international capital. An important element of this situation is 'fiscal dependency' (Midwinter, 2000). In other words, for the functioning of the Scottish Parliament the arrangements with the British state remain crucial. Indeed, the overall budget (grant) available to Scotland is effectively controlled by London, leaving the Scottish Parliament 'only' with the aforementioned

[11] Up-front fees were replaced by post-education graduate repayments.

power over the 'spending mix' (Midwinter, 2000). The possibility of raising its own revenues is rather limited (Midwinter, 2000; McCrone, 1999). Tax varying powers were attributed to the Parliament after it was strongly argued that they were essential to its credibility. Without tax varying power the Parliament would have no much financial capacity, like the Scottish Office that was seen by some as simply another department of the UK government (Mair and McCloud, in Hassan, 1999, p.77). This does not change the fact that both tax varying capacity and its possible economic impact are limited (Midwinter, 2000). Indeed, the Scottish Parliament has the power to vary the standard rate of income tax up or down by only three-pence-in-the-pound. It has been estimated that the full use of this power could bring £450 million, which is relatively little in comparison to the bloc grant of over £14 billion (Mair and McCloud, 1999, p.77; McCrone, 1999). Moreover, the use of the tax varying power (known as the 'tartan tax') is politically extremely sensitive and it could be expected that it will not be used for some time. To conclude, 'financial devolution' remains 'unfinished business' (Midwinter, 2000, p.246) and the 'weakest element' of the devolution settlement (Bogdanor, 1999, p.254).

Scotland: towards the 'knowledge-driven economy'?

Despite these limitations, the Scottish Parliament and the Scottish Executive were keen to assume control over the powers made available to them. Importantly, the *Scotland Act* specified only 'reserved matters' that remain under the control of Westminster (see section 6.3), leaving the Scottish authorities with a wide range of areas of intervention. In terms of economic management, however, these are exclusively supply-side (interview Paterson, 2000). Nevertheless it is the supply-side that is claimed by many to be critical for Scotland's competitiveness in today's global economy (Peat and Boyle, 1999a; interview Ashcroft, 2000), because 'demand-side policy measures do not work anymore' (interview G.Gillespie, 2000). The delivery of better training, upgrading skills, and changing attitudes towards entrepreneurship and 'risk-taking' are all factors highlighted by Scottish policy-makers and academics alike as key areas for intervention in the Scottish economy[12] (interview Watson, MSP, 2000; interview Campbell, 2000; interview Ashcroft, 2000; interview G.Gillespie, 2000; see also Ashcroft, 1998).

The Scottish Parliament and the Scottish Executive wasted no time in setting the agenda along these lines. In terms of economic development policy, important steps were undertaken to create a coherent platform for effective policy making and implementation in Scotland (interview Campbell, 2000). Thus, following a 'big exercise' (interview Campbell, 2000) the Scottish Executive published in June 2000 its first ever *Framework for Economic Development in Scotland* (Scottish Executive, 2000a). The document sets out a vision for Scotland to 'raise the quality of life of the Scottish people through increasing economic opportunities for all on a socially and environmentally sustainable basis' (Scottish Executive, 2000a, p.xii). To achieve this vision, four main 'outcome objectives' have been identified:

- To secure growth through the integration of the Scottish economy with the global economy
- To ensure that all the regions of Scotland enjoy the same economic opportunities
- To ensure that all in society enjoy the same economic opportunities
- To ensure that the development is sustainable economically, socially and environmentally (ibid, p. xii)

The above objectives strongly resonate with the objectives declared by the advocates of 'learning regions' and the 'knowledge economy' (cf. Chapters 2 and 3 of this thesis). Indeed, Scottish authorities paid significant attention to the 'knowledge economy' agenda, making it an explicit strategic goal for Scotland. Building on the previous work undertaken under the auspices of the pre-devolution Scottish Office[13], the *Knowledge Economy Task Force* was set up and headed by the Minister for Enterprise and Lifelong Learning, Henry McLeish (interview Campbell, 2000). The Task Force, working from February to June 2000, included major figures from the Scottish higher education sector, business persons, representatives of the Scottish Enterprise and Charles Leadbeater, the 'respected author on the knowledge economy' (cf. interview Hassan, 2000). The aim of the Task Force was to produce a report on the knowledge economy (interview Hassan, 2000). The thrust of the argument emerging from this work was summarised by Henry McLeish himself, from his later

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[12] See Paterson (interview 2000) for a more critical point of view.

[13] Following the publication of the UK Competitiveness White Paper *Our Competitive Future, Building the Knowledge Driven Economy* in December 1998 (DTI, 1998) the Scottish Office produced a report

position as the First Minister of the Scottish Executive (i.e. 'Scottish Prime Minister'). He wrote:

> 'The new, knowledge-based economy is becoming a striking feature of life in all advanced economies. Increasingly, economic success and prosperity are coming to depend on learning, the creation of knowledge and its application, and businesses working smarter and not harder. The qualities that will produce success in this world are ones in which Scotland has traditionally excelled – a desire to learn, scientific excellence and a proud record of technological innovation. Our task today is to capitalise on these assets and secure a bright future for ourselves in the Knowledge Economy' (Scottish Executive, 2001a; Foreword).

The above line of strategic thinking was further developed by the Scottish Executive's Enterprise and Lifelong Learning Department under the leadership of Wendy Alexander. Its main emerging themes were encapsulated in the overarching strategy for Scotland entitled *A Smart, Successful Scotland* (Scottish Executive, 2001b). The document sets 'direction' and a vision for a 'smart, successful Scotland', where 'creating, learning and connecting faster is the basis for sustained productivity growth, competitiveness and prosperity' (ibid, p.7). In a remarkable way, the document reflects all the major themes advocated by the 'new regionalist/learning region' literature (cf. Chapter 3 of this thesis). Indeed, the Scottish Executive emphasises that the vision for Scotland is a vision of a 'high skill, high wage economy' where knowledge is a 'key competitive weapon' (ibid, p.7). It is claimed that Scotland has to be put on a 'new, higher growth path' while being 'agile and fast to learn' (ibid). The approach to globalisation 'must not be to resist change, but to embrace it' (ibid). Indeed, the aim is to integrate Scotland with the global economy, enabling 'the improved flow of products, technologies and ideas in and out of Scotland' (ibid, p.7). The ambition for Scotland is to be 'the most globally connected nation in Europe' (ibid, p.2) and to become a 'fast learning, high earning nation' (ibid, p.7).

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entitled *Scotland: Towards the Knowledge Economy* (Scottish Office, 1999) reflecting all the major themes of the UK White Paper and applying them to the Scottish circumstances.

A Smart, Successful Scotland also indicates the main strategic priorities required to achieve the above vision[14]. These priorities come under the three main headlines: 'growing businesses', 'global connections' and 'learning and skills'. Under these headlines, several familiar themes emerge including entrepreneurial culture, commercialisation of research and innovation, clusters development, e-business, ICT infrastructure and skills development (cf. MacLeod, 1996, 2000; inter alia). New areas of intervention outlined by the document include the promotion of Scotland as a globally attractive place to live and work and emphasis on promoting home grown global companies (see Scottish Executive, 2001b).

Importantly, the Scottish Executive recognises that the vision of a smart, successful Scotland requires strategic partnerships 'within the wider institutional landscape, working collaboratively . . . both at national and local level' (Scottish Executive, 2001b, p.19). The partners explicitly referred to in this strategic document include organisations like *Careers Scotland*, the *Scottish Tourist Board* (recently renamed *VisitScotland*), and *Scottish Homes* (see ibid, p.19). The Scottish Executive also expects the involvement of local authorities, the Scottish further and higher education sector, trade unions, employer bodies, voluntary organisations and public, private and social economy organisations[15]. However, it has been made clear by the Scottish Executive that the major responsibility for facilitating the transformation of Scotland into a 'globally connected' and 'fast learning, high earning nation' should be taken by the Scottish economic development agencies, collectively referred to as Enterprise Networks. The following section will provide a discussion on the crucial part of the Enterprise Network – the Scottish Enterprise – and its role in promoting the 'knowledge economy' paradigm in Scotland.

[14] It is important to note that *Smart Scotland* economic vision needs to be seen in connection with strategies emerging in related policy areas, in particular skills strategy for Scotland, science strategy, business strategy, birth rate strategy, manufacturing strategy and tourism strategy and *Digital Scotland* strategy (interview Campbell, 2000).

[15] In addition, it could be expected that specialised input could be provided by think tanks including *Scottish Council Foundation* (SCF) or *Centre for Scottish Public Policy* (formerly John Wheatley Centre) whose purpose is to look into Scotland's current policy options and reflect on possible future trajectories (interview Duff, 2000; interview Herd, 2000), thus providing Scotland with a 'learning ahead' capacity (cf. Chapter 3 of this thesis).

Before doing so, however, it is perhaps useful to summarise the evidence relating to the role of the Scottish institutional landscape in the economy. One suggested conclusion is that although Scottish institutions themselves cannot be taken for granted (as they are subjects, objects and outcomes of social struggles), they nevertheless seem to play a noticeable role in influencing Scottish economic trajectories. Probably their most remarkable achievement is mirrored in what could be termed a 'refined imbalance' within the UK. The most visible element of this imbalance is the favourable fiscal position of Scotland, in particular in comparison to other less-favoured regions of the UK. Indeed, the long-term higher-than-UK-average public expenditure could be seen as a significant contribution that Scottish institutions have made to the economic fortunes of Scotland. The availability of resources is in turn reflected in its rich institutional tissue. Scottish Enterprise is part of this institutional tissue of considerable 'thickness'. The role of Scottish Enterprise in promoting economic development will now be examined in more detail.

6.6 Scottish Enterprise - 'animateur' of the 'knowledge economy'?

This section seeks to examine the role of Scottish Enterprise as the *animateur* promoting Scotland's high-growth, high-value path to the 'knowledge-driven economy' (cf. MacLeod, 1996, 1997, 2000). It will start by exploring the institutional framework of Scottish Enterprise (SE) and its satellite organisations, followed by a discussion on more recent developments in the agency's structure and policy emphasis. Finally, the section will focus on selected activities of Scottish Enterprise, namely its cluster development policy and the *Alba Centre* initiative, both of which aim to promote the 'knowledge economy' in Scotland.

From SDA to Scottish Enterprise (SE)

As mentioned in the previous section, the origins of Scottish Enterprise (SE) go back to 1975 when, amid growing concerns over the weaknesses of the Scottish economy, the Scottish Development Agency (SDA) was established, funded by an annual grant from the Scottish Office. The SDA was given the responsibility for providing, maintaining and safeguarding employment and promoting industrial efficiency and international competitiveness (Fairley and Lloyd, 1995a). Originally, the SDA acted as an investment bank to encourage technologically advanced establishments (Danson, 1980), but later focused more on area-specific projects, especially in Glasgow (see also Lever and Moore, 1986; Moore and Booth, 1986), where the problems associated with industrial restructuring were most pronounced. Over the years, the SDA's range of activity included property management, investment in individual businesses, advisory services, environmental improvements, marketing and the promotion of Scotland for inward investment, research on the Scottish economy and project planning (Moore, 1995). The Agency is also said to have played a 'key role' in supporting important sectors such as oil and electronics (Fairley and Lloyd, 1995a, p.55-56).

From 1975 through to the 1980s, the SDA emerged as a strategic player for supporting the regional economy, with an annual budget of £120 million and employing 680 staff in 1990 (Moore, 1995). Some of its activities, however, were clearly at odds with the dominant free-market approaches of the Conservative government and the Agency had to realign and adopt a 'market failure' approach (Fairley and Lloyd, 1995a). Eventually, the SDA was dissolved in 1990 by legislation and in 1991 was replaced by Scottish Enterprise[16] (Fairley and Lloyd, 1995a; Moore, 1995; MacLeod, 2000, p.226). This represented a major change in economic development support in Scotland. First, traditionally separate 'economic development' and 'training' agendas were merged together under the umbrella of Scottish Enterprise (SE). This in part reflected the imperative of supply-side economics and the emphasis on the flexible labour market, but the move was nevertheless welcome (see Fairley and Lloyd, 1995a). A second and more problematic change was that such support infrastructure was broken down into 13 *Local Enterprise Councils* (LECs) in order to 'respond to local needs'[17]. Finally, the most controversial change was that LECs were conceived as business-led *private* organisations. These changes were in line with overall private business interest emphasis that continued to pervade throughout the 1990s. In the process, the central

[16] Similarly, the Highlands and Islands Development Board was transformed into Highlands and Islands Enterprise (Fairley and Lloyd, 1995a, p.62).
[17] Overall, 22 LECs were created in Scotland, 13 in the Scottish Enterprise area and 10 in the Highlands and Islands Enterprise area (1 LEC is shared) (Fairley and Lloyd, 1995a, p.62).

SE office was said to have lost its strategic planning capacity and most of its budget (some £449 million in 1992/93) was effectively being devolved to LECs through annual contracts (Fairley and Lloyd, 1995a). This institutional structure survived with minor modifications until the end of the 1990s[18], when major new changes were instituted, reflecting the imperatives of post-devolution Scotland (see below).

Meanwhile, it is important to notice that both the SDA and Scottish Enterprise contributed to the further strengthening of the institutional framework for economic development support. Importantly, the *Locate in Scotland* (LIS) was established in 1981 as a joint venture between SDA and the Scottish Office, enhancing the capacity of Scotland to attract incoming foreign direct investment (see Hood and Young, 1984). *Locate in Scotland* subsequently grew into a powerful agency in its own right, whose activities went beyond the attraction of investment to include complex after-care services (MacLeod, 1997, p.303; Amin and Tomaney, 1995c; cf. Chapter 3). In the words of a senior *Locate in Scotland* official, the agency's ultimate goal is to encourage foreign companies 'to come, to stay, to thrive' (interview Triquart, LIS, 2000). For this aim, the agency had about 95 staff working around the world, including 50 to 60 employees in its Glasgow headquarters (ibid). The exact budget available to the agency has not been disclosed, allegedly being part of the agency's 'competitive advantage', especially vis-à-vis the rival 'Welsh competition' (ibid). Likewise, information on the size of the financial incentives offered by LIS to potential investors has not been made public. Nevertheless, it was suggested that financial incentives 'can be very sizeable' (ibid). Part of the services offered to inward investors are guided tours for helping them to choose the best possible location for their investment[19]. The agency promotes the whole of Scotland (including the Highlands and Islands), and uses Scotland as a 'tight brand'. Employees of LIS see themselves as a part of 'team Scotland', despite their two different paymasters (i.e. Scottish Enterprise and Scottish Executive at the time of the interview). In the year 2000, the agency estimated that about 1,000 foreign companies operated in Scotland,

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[18] The SE's overall budget in 1998/99 was £467million (£418m grant from the Scottish Office, £3m voted loans and £46m business receipts) with about 76% being devolved to LECs. The budgets of the three biggest LECs of Glasgow, Lothian-Edinburgh and Lanarkshire were £56m, £48m and £46m respectively (SE, 1999a, p.3).

[19] Allegedly including helicopter trips over Scotland for important customers.

and took credit for assisting 'some of them', thus contributing to an impressive record of FDI in Scotland (interview Triquart, LIS, 2000).

Other institutions created in Scotland in support of the aim further included *Scottish Trade International* (STI). Established in 1991, the principal goal of this agency was to promote Scottish exports (MacLeod, 1997, p.305-306). The institutional framework for economic development in Scotland was complemented by a network of *Business Shops*, whose objective was to assist business start-ups and support the indigenous SME sector (interview Gosden, 2000). Thus it could be argued that, taken together, Scottish Enterprise and its satellite organisations covered all aspects of economic development support, from skills and training to indigenous business start-ups and SMEs, to global companies, and from FDI attraction to export promotion (see below for recent developments). This could be said to be one of the strengths of the Scottish institutional framework.

Recent developments

As argued in the previous section, *devolution* brought several important changes for Scottish 'institutional thickness'. These changes have important implications for the operation of SE. First, a clear line of *democratic* accountability has been established. SE remains an 'arms-length' agency (interview SE, 2000), but is ultimately answerable to the Scottish Executive. Meanwhile the Scottish Executive is under the scrutiny of the Scottish Parliament. Second, a sense of clear strategic 'direction' has been set up, with the Scottish Executive assuming a leadership role for the entire Enterprise Network (see Scottish Executive, 2001b). Third, under this leadership, new policy imperatives for the Enterprise Networks have emerged. Fourth, devolution brought a new impetus for 'co-ordination', 'coherence', 'transparency' and 'cost-efficiency' in policy delivery (cf. Scottish Executive, 2000a, 2000b, 2001a, 2001b; interview Richmond, SE, 2000). Reflecting these imperatives, three major reviews of economic services delivery in Scotland were launched in parallel (interview Hassan, 2000). First, SE instituted its own internal 'organic reform' (Lloyd and McCarthy, 2000). Second, Scottish Executive undertook a review of Enterprise Networks. Finally, the Scottish Parliament initiated an *Inquiry into the Delivery of Local*

Economic Services in Scotland, seeking to identify problems and areas of improvement for local delivery of economic development services[20].

These recent reviews have already impacted on the way economic development services are being delivered in Scotland. First, Scottish Enterprise's internal reform, launched in March 2000 under the banner of *Scottish Enterprise Network (SEN) 2000*, attempted to achieve greater coherence between Scottish Enterprise and the network of Local Enterprise Companies (cf. Scottish Executive, 2000b, p.6). For this aim, the reform included the creation of SEN Executive Team to secure better integration of the entire organisation and its constituent parts. It also introduced a single brand name for the LECs network and attempted to provide greater consistency across the LECs in terms of service, quality and a focus on priorities. In addition, it made management of LECs more inclusive by including representative small businesses, chambers of commerce, local authorities and the education sector into their boards (Lloyd and McCarthy, 2000, p.35).

Second, reflecting the recommendations of the Scottish Parliament's *Inquiry*, steps were taken to 're-structure', 'rationalise' and 'streamline' local economic development services, and to make them both more accountable and cost-effective (cf. Scottish Executive, 2000b). The creation of new co-ordinating bodies was proposed with the aim of reducing 'confusion, overlap, duplication and even active competition between the many agencies involved [in local economic development]' (cf. Scottish Executive, 2000b). Thus *Local Economic Forums* were introduced in 2001 in each LEC area, comprising representatives of the given LEC, local authorities, local tourist boards, chambers of commerce and the education sector, in order to address the overlap and to improve the delivery of local economic services[21] (cf. Scottish Executive, 2000b, 2001c Danson et al., 2000c). It remains to be seen how this change will eliminate the apparent 'congestion' in delivering economic services or even 'institutional overkill' MacLeod (1997, p.308) in Scotland.

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[20] The *Inquiry* was conducted by the Scottish Parliament's Enterprise and Lifelong Learning Committee.

[21] The Parliament's Enterprise and Lifelong Learning Committee also demanded that LECs be turned from private companies into *public* bodies.

Meanwhile, a *Small Business Gateway* was launched in July 2000 to replace the network of *Business Shops* and create a coherent SME support structure at the local level in the SE area (Scottish Executive, 2000b, p.2, 4). Following the successful launch of the measure, the Scottish Executive was reportedly considering the creation of *Business Gateways* (Scottish Economic Report, June 2002). Finally, the satellite organisations of SE also underwent major restructuring. Most importantly, SE's Globalisation Team, *Scotland Europa* and *Scotland the Brand* merged with *Locate in Scotland* (LIS) and *Scottish Trade International* (STI) to create *Scottish Development International* (SDI) with the aim 'to support the fullest possible Scottish participation in the global economy' (see Brown, 2001, p.17). The creation of the SDI signals new directions in the SE operations (see also Raines and Brown, 2001) in line with the Scottish Executive's objective to turn Scotland into a 'globally connected nation' (see Scottish Executive, 2001b; 2001d). Part of this strategy is to 'work closely with potential multinational players' (Scottish Executive, 2001b, p.13), i.e. to support the creation of home-growth businesses and to help them to become 'global' (see Raines and Brown, 2001). This effort is an integral part of the overall aim, which is prosperous 'smart Scotland' within the 'knowledge economy'.

It remains to be seen what impact this aggressive restructuring of the Scottish economic development infrastructure will have on the economy. What is clear, however, is that Scottish Executive expects Enterprise Networks to 'play critical roles in delivering change for the Scottish Executive' (Scottish Executive, 2001b). In other words, the task of transforming Scotland into a 'knowledge economy' is largely down to Scottish Enterprise. The effort of Scottish Enterprise in this respect will now be examined in more detail, while focusing on two particular stratagems. One is associated more broadly with a cluster approach, while the other represents an attempt to create a 'virtuous circle' of education, innovation and enterprise. Both strategies are seen by Scottish Enterprise as the means of delivering the 'knowledge economy' in Scotland.

Cluster approach

An important impetus for the *cluster policy* was provided in a study by Michael Porter's MONITOR consultancy, commissioned by SE at the beginning of the 1990s (MacLeod, 2000, p.227; see also Peters, 1995; interview Ashcroft, 2000; interview G.Gillespie, 2000). The findings of the study were never fully accepted, but the impact on policy thinking was important, as 'clusters' and 'networks' became part of the mainstream SE strategy (interview, Pollock). Indeed, both recent SE *Network Strategy* (SE, 1999a) and the *Cluster Approach* (SE, 1998a) identify the 'knowledge economy' as the principal strategic objective for Scotland while suggesting that the 'cluster approach' is one of the key vehicles for delivering such a strategic aim (see also SE, 1999b).

The Cluster Approach document begins by acknowledging that 'information and ideas will be *the* most important commodity in the world's economic system' (SE, 1998a, p.1; original emphasis). According to SE, networks or clusters are the best institutional forms for creating that commodity, because they create 'more of the sparks that fuel innovation' and ultimately result in 'greater competitiveness' (ibid.). Clusters are defined as 'synergies' between companies, customers, suppliers, utilities, research institutes and the education sector, formed around a core of 'one or more exporting companies' (ibid, p.2). The cluster approach, it is claimed, is 'uniquely well-suited' (ibid, p.3) to countering the threats, and making the most of the opportunities, of the 'knowledge economy' in which the most valuable commodities are not material and assets, but information and innovation (ibid, p.2). Indeed, SE suggests, the cluster approach is a 'holistic strategy' to economic development that has a 'proven track record' as the 'root source of sustainable wealth creation and quality employment growth in dynamic economies from Singapore to the Silicon Valley' (ibid, p.6). Therefore, there is a 'common understanding' that partnerships developed within clusters 'will make *the* difference in positioning Scotland as a key player in the global economy of the 21st century' (ibid, p.1; original emphasis).

Fuelled by this 'understanding', SE began to focus attention and effort in developing some of Scotland's most important value-creating clusters, such as oil and gas, electronics (semiconductors), food, biotechnology, software, optoelectronics and creative industries (multimedia) (ibid, p.5; interview Pollock, SE, 2000; Raines, 2002). In implementing such a strategy, SE relies on carefully prepared and budgeted 'action plans' for each cluster (SE, 1999a; Raines, 2002; interview Togneri, SE, 2000). Particular attention has been given to activities related to the electronics cluster, which receives a £46 million budget over five years (interview Togneri, SE, 2000).

The choice of *electronics* as one of the key areas of policy intervention is no accident, given that it is a crucial manufacturing export sector of Scotland (Peat and Boyle, 1999a; Brown et al., 1999, p.12; see also section 6.4), directly employing 40,000 people and a further 30,000 jobs in supply (SE, 1999a, p.11). The semiconductors sector alone is said to directly or indirectly employ about 8,000 people (Raines, 2002). The fragility of the sector, however, remains at the heart of policy makers concerns (interview Ashcroft, 2000). Two main factors are considered critical. First, the problematic level of local embeddedness (see Turok, 1993; McCann, 1997; Turok, 1997; for a discussion), and second, its rather low-value, mostly assembly-based production (cf. Henderson, 1989), leaving Silicon Glen overexposed to the volatile global marketplace (Peters, 1995, p.265). Scottish Enterprise has pursued two types of policy responses to this problem. First, it tried to address the issue of relatively low embeddedness by attempting to engage inward investors and local suppliers within localised clusters (cf. Peters, 1995; Raines, 2002). Part of this stratagem was the SE-assisted creation of the *Scottish Electronics Forum* in 1993, bringing together the leading electronics companies in Scotland, both overseas and indigenous, in order to address the industry's needs whilst building foundations for a more robust, more sustainable, and potentially more value-added competitive sector (Peters, 1995, p.273-5; MacLeod, 1997, p.304-305). This was followed by the creation of the *Scottish Supply Base Forum* (SE, 1999a, p.33). However, SE is aware that such activities 'pay gradual rather than dramatic returns' (SE, 1998a, p.5). A more aggressive stratagem has been adopted in the case of the *Alba Centre*, where a key element was the direct attraction of a high-value-added investor into Scotland.

Alba Centre

The *Alba Centre*[22] seems to be the focal point of hopes for Scottish policy makers in their efforts to transform Scotland into a 'knowledge economy' (interview Campbell, 2000; interview Ashcroft, 2000; interview Togneri, SE, 2000; interview Triquart, LIS, 2000; interview Edward, 2000). The aim of the *Alba Centre* is to create a virtuous circle by 'linking education, innovation and enterprise', as evoked by Gordon Brown (1999) in the opening citation of this Chapter. *Project Alba* had already been praised by the Scottish Enterprise's Chief Executive as a 'major success' of Scottish Enterprise in 1997 and a bright example of the agency's 'cluster approach' strategy (SE, 1998b, p.5). In 2002 the Scottish Executive highlighted the *Alba Centre's* 'pioneering success' in terms of the commercialisation of research and innovation in Scotland (Scottish Executive, 2002, p.12). Clearly then, Alba is a high profile policy initiative deserving closer attention.

Established in 1997 in Livingston near Edinburgh, at the 'heart of the Silicon Glen', this 96-acre campus forms part of the strategy to attract highly knowledge-intensive and high-value-added activity into Scotland. The focus is on the expected high-growth segment of electronics design, in particular on 'system level integration' (SLI) or 'system-on-chip' (SoC). There is a conscious effort to embed such activities locally, not least through synergising with local research and education establishments (interview Edward, 2000). Indeed, one of the important elements of this unique initiative is the creation of the *Institute for System Level Integration* (ISLI). The Institute, established in October 1998 and situated within the Alba Centre, is a joint venture between SE and four top Scottish universities (Edinburgh, Glasgow, Herriott-Watt, Strathclyde) combining the research and teaching strengths of seven university departments of electrical/electronic engineering, computing science and informatics (The Alba Centre, 2002). The Institute offers the world's first MSc in System Level Integration (since October 1999) alongside PhD programmes (interview Edward, 2000). The creation of the institute was praised by the then First Minister Donald

[22] Alba is the ancient Gaelic term for Scotland.

Dewar as ‘a key component in developing the knowledge economy in Scotland’ while keeping it ‘at the forefront of the electronics revolution’ (see ISLI, 1999).

The Alba Centre also accommodates *Virtual Component Exchange* (VCX), the world’s first exchange for trading intellectual property (interview Edward, 2000). Launched in 1998, this industry organisation supported by SE focuses on the trading of the electronics-related intellectual property in the form of ‘virtual components’ (VC), or pre-designed blocks that can be ‘plugged’ into a complete system-on-chip design (The Alba Centre, 2002). The VCX was designed to shorten product design cycles, reduce risk and lower the overall transaction costs for participating companies in the expectation of an ‘exploding’ intellectual property market (SE, 1999a, The Alba Centre, 2002).

The support infrastructure at the Alba Centre was complemented by the creation in May 2001 of the *Scottish Embedded Software Centre* (SESC) intended as the hub for embedded software expertise for Scottish companies (The Alba Centre, 2002). One of its aims is to reduce costs and risks for smaller companies in developing embedded software systems by providing them with access to specialised software expertise (with links to local industry and academic institutions at the top of SESC’s own expertise) and offering a comprehensive range of technical services and strategic counsel (The Alba Centre, 2002). Another initiative at the campus launched in May 2001 is the *European Test Technology Centre*, offering expertise and training in the area of test electronics engineering (The Alba Centre, 2002).

However, the ultimate test for the Alba Centre is whether this world-class support infrastructure will be able to attract and ‘embed’ first-class inward investors. Here several successful implantations have been reported. The first investor was Cadence Design Systems, a US multinational company, supposedly the largest supplier of electronic design technologies, methodology services and design services, which are supposed to accelerate the design of semiconductors, computers systems, networking and telecommunications equipment, consumers electronics and other electronics-based products (interview Stephenson, Cadence, 2000). The attraction of Cadence in 1997 was a crucial step in establishing the Alba Centre and SE involved personal contacts of its Chief Executive and an undisclosed amount of financial assistance in bringing this important investment to fruition (interview Lewis, SE, 2000; interview Togneri, SE, 2000). Cadence, of course, is a very different player than the majority of electronics (mostly manufacturing) companies within Silicon Glen. It operates at the very top of the value-chain within the 'new economy', employing well educated 'knowledge workers' and may be seen as a model company of the emerging Scottish 'knowledge *sub*-economy'. Ironically, the company says that one of its main reasons for locating in Scotland is the UK's intellectual property regime, acknowledging that the deal offered by SE also played a role (interview Stephenson, Cadence, 2000). Scottish Enterprise's expectations of Cadence have been significant. In particular Scottish policy makers hoped that within seven years the company would create up to 1,900 first-class jobs in Livingston[23] (SE, 1998b, p.5; interview Togneri, SE, 2000).

Meanwhile, it is important to notice that several other electronics company investors followed suit, including Motorola, Epson, Tality and Spektra Systems, bringing the occupancy rate to 12,000 sq metres. Overall, the Alba Campus is expected to offer 92 900-sq-metre first-class office spaces and create 5,000 jobs (The Alba Campus, 2002).

To conclude, it could be argued that the Alba Centre represents a tangible outcome of Scottish Enterprise's efforts to bring about a 'knowledge economy' in Scotland. However, it is not clear if all the expectations of Scottish policy makers will materialise. In particular, it remains to be seen whether the desired synergy between investors and supporting local infrastructure will come to fruition, and to what extent it will contribute to the virtuous circle between 'innovation, education and enterprise'. More broadly, one would have to wait to see how sustainable this initiative will be and what impact it will make on the Scottish Enterprise economy in the longer term. Furthermore, the question arises whether such 'prime-site' knowledge (sub-)economy development will contribute to a 'Smart, Successful Scotland', where prosperity will be 'shared by all'. This latter issue becomes prominent in the context of the growing social and spatial inequalities, examined in the following section.

[23] However, in 2000 only about half of this number seemed realistic (interview Togneri, SE, 2000).

6.7 Social and spatial divides in Scotland

In terms of *social divides*, Scotland has to be seen within the pattern of inequalities in the UK (Goodall et al., 2002). Here the overall trend is a matter of concern. Indeed, since the erosion of the 'welfare state' in the mid-1970s (coinciding with the alleged rise of the 'knowledge economy') until the late 1990s, British society showed an overall propensity for growing social inequality. In terms of disposable income, measured by the Gini Coefficient, there has been a general increase in inequality since 1977 with the steepest rise occurring in the mid-to-late 1980s following the Conservatives' 'free-market revolution'. During the 1990s income inequality showed a slight downturn but has begun to rise again in recent years (Goodall et al., 2002; see also Hudson and Williams, 1995; Mohan, 1999; Goodman, 2001). The most recent trend sets aside New Labour's commitment to social inclusion. Detailed analysis of the period since 1997 has shown that although low-income social groups experienced a rise in standards of living (in part thanks to Gordon Brown's redistributive policy), high-income groups experienced an even higher rise. As a consequence, the social divide has grown (Goodman, 2001). Interestingly, during most of the 1990s, the Gini Coefficient (and thus social inequality) in Scotland remained below the British average, albeit with a strong tendency to 'catch up' since 1998 (Goodall et al., 2002). Comparatively, UK social inequality (Gini above 30) is one of the highest in Europe and is quite similar to that found in the USA (Goodall et al., 2002, p.36).

Meanwhile, *regional* inequalities in Scotland are also significant and rising. Historically, the greatest divide developed between Lowland Scotland and the Scottish Highlands and Islands, marking the lasting legacy of three centuries of industrial development in Lowland Scotland (see section 6.2). In particular, the urban agglomerations of Glasgow and Edinburgh have emerged as major economic 'magnets' within Scotland, creating a huge contrast to the largely sparsely populated, emigration-ridden rest of the country. This divide is still rather pronounced even today, with the Central Belt of Scotland accommodating the bulk of the Scottish population and economy. Glasgow and Edinburgh continue to be engines of the Scottish economy, providing valuable agglomeration economies (Turok and Bailey, 2001) and scoring high in terms of GDP per capita (cf. Scottish Economic Bulletin, March 1999, p.73). The new knowledge-intensive (sub)economy seems to cluster in the Central Belt within or around these urban centres (see also Lever, 2001; Turok and Bailey, 2001), showing no overall tendency to decentralise towards more peripheral regions. The only exception is perhaps Aberdeen, 'oil capital of Europe' (Devine, 1999, p.596), where the oil and gas industry has brought in a limited amount of 'knowledge-intensive' and 'localised learning' activities (cf. Cumbers and Martin, 2001) while making the Grampian region (and more recently also the Shetland Islands) in GDP per capita terms one of the richest places in Scotland (and indeed the UK) thus contributing to the country's *growing* regional imbalance (see Peat and Boyle, 1999c, p.56-57; Dunford, 1995).

Important differences may also be found within the Central Belt. The sub-regional imbalance was highlighted in the 1970s and 1980s, with de-industrialisation severely crippling the economy of Glasgow and turning it into one of the worst unemployment black spots of Europe at the time (cf. Lever and Moore, 1986). Edinburgh, meanwhile, continued to grow as a smaller but smarter urban centre, not least thanks to its administrative functions and burgeoning financial and business services, to become one of the most prosperous cities in Britain (Bailey et al., 1999; Turok and Bailey, 2001). Deep divides, however, may exist within Edinburgh itself. On the one hand it can be seen as a rich post-industrial, knowledge-intensive 'intelligent city' (MacLeod, 2000, p.232), but on the other, it is also an increasingly 'dual city', with many citizens 'living below "acceptable" levels of income' (ibid, p.232).

Thus one has to observe that even if Scotland has performed quite well in terms of converging towards the UK GDP per capita average in recent years (see section 6.4), this convergence was *in part* achieved at the expense of greater intra-Scottish social and spatial imbalances. The emerging picture is thus in stark contrast to the pattern of convergence achieved during the post-war 'welfare state' period. The reversal of the trend points to a growing socio-spatial divide within Scottish society, underpinned by socio-spatial divisions of labour and the differentiated access of people and localities to 'flows of value', exacerbated by the pre-dominantly neo-liberal economic environment.

6.8 Conclusion

This Chapter has aimed to examine how Scotland, an old industrial region in the periphery of the EU, is managing its transformation into a 'post-industrial' or 'knowledge economy'. The Chapter focused on whether the prosperity of Scotland can be seen as a matter of 'choice', and to what extent the region, through its institutions, can be said to influence its economic trajectory in the context of its own historical legacies and the wider political economy. The findings can be summarised as follows.

First, the historical legacies examined in section 6.2 are a significant factor in understanding Scotland and its economic fortunes. In particular, the 1707 *Act of Union* with England made a lasting impact both in terms of 'soft' institutional and 'hard' economic legacies, providing Scotland with both 'incentives' and 'constraints'. Importantly, following the *Act of Union*, Scotland lost its independence, but nevertheless maintained an important degree of autonomy that proved to provide a crucial base for subsequent institutional build-up. In addition, the *Act of Union* guaranteed Scotland a rather privileged position within Britain, which continues today. In economic terms, the legacy is rather mixed. Scotland benefited enormously from being part of the expanding empire; it also benefited under Keynesian 'welfare-state' arrangements after the Second World War. However, Scotland also subsequently suffered in the UK-imposed 'market revolution', of which dramatic de-industrialisation was a much-contested part. It could be argued that taken together these legacies play an important role in determining Scotland's position within the current wider political economy examined in section 6.3. The section highlighted the fact that the region both benefits from its engagement with, and is constrained by, the imperatives of the wider political economy environment as represented by the UK, Europe and the international political economy. One of the most significant aspects of this engagement, building on the more favourable legacies of the past, was Scotland's continuing privileged fiscal position within the UK (in comparison to other less-favoured regions in the country). Scotland also exercises what may be a disproportionately strong voice within the UK governing structure (particularly in comparison with other regions of the UK). However, despite these favourable aspects, the wider political economy also imposes significant constraints on Scotland, which are levered from the UK, EU and international levels. Thus, even in the post-devolution era, the power of the Scottish administration remains rather limited, while the fortunes of the Scottish economy are increasingly dependent on the wider 'socio-spatial divisions of labour' and 'socio-spatial flows of value', as embodied, *inter alia*, in the patterns of trade, investment, financial flows and (skilled) labour migration.

All these aspects are subsequently reflected in the economic performance of Scotland reviewed in section 6.4. There it was argued that following the devastating de-industrialisation of the late 1970s and 1980s, the Scottish economy has more recently shown signs of recovery. Elements of this recovery and the reasons behind it have been subsequently discussed. Several factors may have played a role in this development, including the significant amount of FDI (especially in the 'new economy' sectors); the advantage of a cheap labour pool and other available incentives; the impact of the oil industry and the surge in 'domestic' financial and other business services, in part building on past legacies. Besides, Scotland has benefited from the aforementioned fiscal advantage, contributing to Scotland's position as one of the best performing peripheral economies of the EU.

The Chapter then moved on to examine the role of Scottish institutions in securing this rather favourable position. For this purpose, the Scottish institutional landscape has been subjected to a detailed analysis in section 6.5. It was argued that Scotland has managed to develop an impressive 'institutional thickness' through decades of gradual institutional build-up. The long-term process of incremental 'administrative devolution' has recently been coined by 'political devolution' settlement, furthering the institutional capacity of the region-state. This institutional development, however, cannot be taken for granted. Rather, the Chapter emphasised throughout that Scottish institutions may be seen as the objects, subjects and outcomes of social struggles. Importantly, it should be emphasised that the above institutional achievements, including the recent devolution deal, would have been unthinkable without a great deal of 'coalition-building' within Scotland. It is in the light of this spectacular coalition-building process that Scottish institutions may be seen as making a noticeable impact on Scottish fortunes. Indeed, the 'refined imbalance' that Scotland has managed to 'negotiate' within the UK (especially in terms of funding arrangements), could be seen as the single most important contribution Scottish institutions have achieved for the Scottish economy.

The fruits of this effort can be found in the example of Scotland's main development agency examined in section 6.6. Indeed, Scottish Enterprise, a well-resourced and well-organised agency, has become a major player in supporting the Scottish economy. A central and explicit part of its agenda is to encourage the transformation of Scotland towards the 'knowledge economy'. A marked example of this effort is the 'Alba Centre' in whose establishment Scottish Enterprise could be said to have played a key role as *animateur*. This prestigious development may be seen as a tangible example of the successful attraction of high-value added economic activity into a 'rustbelt' region. More broadly, it may be viewed as an attempt to emulate 'high road' development in Scotland. Although highly attractive, this kind of stratagem has to be seen in a critical light. Importantly, it needs to be seen in the context of increasing social and spatial inequalities *within* Scotland (cf. section 6.7). Indeed, there is a danger that projects such as the 'Alba Centre' will promote development *in* the region, as opposed to development *of* the region (cf. Chapter 3). In addition, it is not clear whether such development will have any wider, fundamental and longer-term impact on the Scottish economy. In other words, it remains to be seen whether initiatives like this will help Scotland to escape its peripheral position within the wider 'socio-spatial divisions of labour' and 'socio-spatial flows of value'.

Besides these concerns, one has to pay attention to the changing landscape in which Scotland as a region-state operates. As highlighted by several authors (see McCrone, 1999; inter alia), Scotland faces critical dilemmas (McLean, 2001b). Its current favourable fiscal position is perceived as being eroded in the longer-term and the question of how to compensate for this potential deficit in the Scottish budget will need to be addressed. Thus, the future fortunes of Scotland will to a large degree depend on the development of its constitutional and financial arrangements with the British state. Some would argue that fiscal autonomy may be the way forward (cf. Midwinter, 2000; see McCrone, 1999 for a sceptical view), while others do not rule out the full independence of Scotland (Nairn, 2000; inter alia). However, this thesis supports the view that even with full political independence, it is questionable how much room Scotland would really have in terms of determining its economic prosperity.

This argument will be further developed in the following Chapter, which examines an example of a region-state that followed the route to independence. The Chapter will present the case of Slovakia, which emerged as an independent nation following the dissolution of Czecho-Slovakia, while struggling to manage both its post-socialist transformation and its transformation to the competitive 'knowledge economy' against the background of its uneasy historical legacies and largely hostile international political economy.

Chapter 7:

Case study: Slovakia

'Without a full appreciation of what a knowledge-based economy actually is, Slovakia cannot count on any long-term success or prosperity'

(Ivanička, 1996, p.117).

7.1 Introduction

After examining Scotland, a region-state at the periphery of 'Western' Europe in the previous Chapter, the focus of my enquiry will now shift to the eastern 'half' of the emerging 'New Europe'. Following the collapse of state-socialism there, countries and regions of Central and Eastern Europe embarked on a 'transition to capitalism'. Originally conceived as a vehicle for quick economic catch-up with the 'West', 'transition' turned-out to be a very problematic exercise (see Chapter 4). Economic, political and social problems in the countries of Central and Eastern Europe (CEECs) are a matter of considerable concern for the unifying Europe. In particular, weak economic performance combined with growing social and regional polarisation in CEECs represents one of the main challenges for the social and regional cohesion of an enlarged European Union (EU) requiring due attention.

This Chapter focuses on Slovakia, a small country in Central Europe (population 5.4 million) undergoing dramatic socio-economic transformation. This transformation is multi-dimensional and includes the following simultaneous processes: firstly, the transformation from state-socialism to liberal capitalism, secondly, integration with the EU, thirdly, nation-building and the transformation from a 'region' to an independent state, and finally, the attempted transformation from an industrial economy to a 'knowledge-based economy'. It can be said that socio-economic transformations in Slovakia display specific features reflecting unique Slovak conditions. However, it could be also argued that the Slovak transformation only mirrors and highlights wider processes and conditions found elsewhere in post-socialist Eastern Europe. Slovakia thus can be seen as a 'laboratory' of change in Central and Eastern Europe. In addition, Slovakia also offers a chance to examine the propositions of some economic geography literature on institutions and regional dimensions of the 'knowledge economy' in the context of Central and Eastern Europe. Indeed, the country offers some valuable material for such an enquiry. Alongside the processes of 'nation-building' and general institution-building, there were attempts to create an institutional base for particular economic development functions. As part of this effort, specific organisations were created whose functions were to 'learn ahead' and to provide strategic policy directions. Simultaneously, conscious attempts were made to promote the 'knowledge economy'.

These efforts, however, have to be seen through the prism of the analytical approach developed earlier (in Chapter 5) and put into the perspective of historical legacies and the wider political economy. To allow subsequent comparison (in Chapter 8) between the two case studies, the structure of the present Chapter on Slovakia mirrors in broad terms the structure used when examining Scotland[1]. The Chapter thus begins (in section 7.2) by placing Slovakia into its historical context while highlighting several crucial economic, political, cultural and institutional legacies, both pre-socialist and state-socialist. These legacies, it will be argued, become critical when confronted with the current imperatives of the wider political economy. These imperatives, coming from the intertwined power of market forces and leverage exercised by international organisations, will be reviewed in section 7.3. It will be suggested that the interaction between them and Slovakia's own historical legacies to a large extent determines the country's position within international divisions of labour and value chains. These in turn impact on Slovakia's economic performance which will be detailed in section 7.4. The role of Slovakia's institutions in influencing economic performance will then become a focus of attention. Initially, section 7.5 will try to sketch the institutional

[1] Major differences in the structure are to be found *within* sections on the wider political economy and institutional responses – for obvious reasons.

responses in Slovakia to the ongoing transformation. It will be argued, in line with the analytical framework developed earlier in the thesis, that institutions need to be seen in the context of wider socio-economic struggles. The emergence of an independent Slovak state from the 'vicious circle' of Czecho-Slovak 'transition' will serve as an example. Subsequently, the processes occurring in the post-independence Slovak Republic will be scrutinised. It will be argued that they offer a rather hostile environment for building a coherent economic strategy and for setting-up a relevant institutional base. This will be highlighted in section 7.6 with the example of specialised economic development institutions. Indeed, although attempts were made to create 'animateur-like' organisations, these often struggle for their own survival within the turbulent socio-economic transformation. Thus, attempts to promote the 'knowledge economy' in the capital city - seen as an important step in ensuring Slovakia's 'passage to a knowledge-based society' (Ivanička, 1996, p.91) and in building the Central European 'Silicon Valley' - proved to be rather challenging. These attempts will be seen in the context of Slovakia's growing social and regional differences as demonstrated in section 7.7. Finally, on the basis of the empirical evidence offered, section 7.8 will seek to formulate conclusions.

7.2 Historical legacies

In line with argumentation developed in previous Chapters, the first important factor that has to be taken into consideration when examining economic development of a given region or country is its historical legacy. For an understanding of Slovak historical legacies one has to go back to the 9th century when the relatively powerful Christian kingdom known as *Great Moravia*, uniting Czech (Moravian) and Slovak tribes, was established in Central Europe. The Great Moravian legacy survives until today and is the basis of Slovak identity as a nation. This identity, however, was subsequently tested to the limits. Following internal squabbles and the Magyar invasion into Central Europe in the 10th century, the Great Moravian empire broke-up and the destinies and fortunes of the two nations, Czechs and Slovaks, diverged importantly (see Seton-Watson, 1943).

The Czechs enjoyed periods of considerable autonomy up until the 17th century through their historical statehood of the kingdom of *Bohemia* and emerged as one of the most developed nations of Europe economically, politically and culturally before being integrated into the expanding Habsburg Monarchy (Seton-Watson, 1943). Meanwhile, Slovak history took a very different route. After being absorbed into the emerging Hungarian kingdom, for 1000 years Slovakia disappeared from the map of Europe as Slovaks became a subjected 'stateless nation' fighting for its economic, political and cultural 'survival' (Kirschbaum, 1995). The negative effects of the Hungarian domination were exacerbated by the devastating raids of the Tatars in the 13th century and Turks in 16th century (Seton-Watson, 1943, p.257) and compounded after Hungary itself became subjected to the Habsburg throne. Unsurprisingly, the economic picture in Slovakia was also bleak. Minerals of the Slovak mountains offered a limited opportunity for economic development and contributed to the rise of mining and trading towns, but overall the country remained mostly agricultural and underdeveloped. When industrialisation eventually took place in the 19th century (Steiner, 1973, p.14) it was rather light and nothing of the scale of the neighbouring Czech lands considered as being the 'workshop of the Habsburg empire' (Brown, 1994, p.52). Politically, things were not much better. The Slovak national revival took place alongside other national movements in 19th century Europe (see also Paterson, 1994), but the efforts to establish a form of autonomy for Slovakia (including a rebellion in 1848) were suppressed and later followed by further political oppression and cultural assimilation ('Magyarisation') (see Seton-Watson, 1943, chap.14). Owing to difficult social and economic conditions, emigration from Slovakia took place, driven by opportunities arising in industrial regions of Europe and America (Kirschbaum, 1995, p.152). This further drained the lifeblood of the nation (Bosák, 1991, p.69).

The opportunity for change arrived with the outbreak of the First World War as neither Czechs nor Slovaks were interested in spilling blood for their Austro-Hungarian rulers. Instead they combined their forces to lobby for the establishment of a Czecho-Slovak state on the ruins of a decaying Austro-Hungarian Monarchy. This solution suited the world powers as part of a post-war peace settlement and the Czecho-Slovak Republic was established on 28 October 1918. The new state could be seen as a 'marriage of convenience' (Bosák, 1991, p.65) but there is a little doubt that it was a last-minute lifeline for Slovak national survival. The 'marriage' with the Czechs, however, was not an easy one (Bosák, 1991). Czecho-Slovakia united two linguistically similar, but economically distinct regions (Pavlínek, 1995). In economic terms, Slovakia was estimated to lag by 80-100 years behind the Czech lands, the most developed industrial area of the former Austro-Hungarian empire (Bálekcited in Pavlínek, 1995, p.352). The inter-war period changed little in this striking economic inequality. In fact, it could be said that the liberal market economy favoured the Czech industrial heartland, while many parts of Slovakia experienced 'de-industrialisation' (Selucký, 1991; Steiner, 1973, p.27). Mass unemployment and gloomy economic prospects fuelled further waves of emigration. Indeed, it could be argued that 'human capital' was the main 'export article' of Slovakia. With the waves of emigrants, Slovakia was losing much talent that instead enriched other industrial countries[2].

The political balance within the first Czecho-Slovak Republic was not in Slovakia's favour either. The original plans for a federal arrangement never materialised and Czecho-Slovakia developed as a unitary state dominated by the Czechs. This state of affairs, of course, was fuelling Slovak discontent that culminated in 1938 when the Czecho-Slovak government was forced to grant Slovakia autonomous status[3]. Eventually Slovakia emerged as an 'independent' state on the eve of Hitler's occupation of the Czech Lands in 1939, while southern parts of Slovakia were occupied by Hungary (see Baláž, 1995, p.359; Kirschbaum, 1995, p.181). One could speculate whether Slovaks had any real choice (cf. Steiner, 1973, p.3) and how 'independent' the war-time Slovak state really was since it was surrounded by Nazi Germany and Pro-Nazi Hungary. Observers agree, however, that in economic terms Slovakia did relatively well[4] (Krejčí and Machonin, 1996, p.100; Kirschbaum, 1995,

[2] Among Slovak emigrants or their descendants were people like Banič, inventor of the parachute, Murgaš, pioneer in telegraphy, Stodola, inventor of modern turbines, but also Warhol, the famous pop artist.
[3] It is worth noting that the name of the country itself was contentious. Between 1918 and 1938 the term 'Czechoslovakia' was commonly used, but following the 1938 settlement, the name 'Czecho-Slovakia' was adopted. The post-War period saw a return to the term 'Czechoslovakia' as standard, but the 'naming' issue arose again in 1968 (Prague Spring) and after 1989 (fall of state-socialism). This thesis uses the terms 'Czecho-Slovakia' and 'Czecho-Slovak Republic' throughout.
[4] See Pavlínek (1995, p.354) for a critical analysis of the reasons of this positive economic growth.

p.201; Pavlínek, 1995, p.354) and Slovakia could have been described as an oasis in the sea of the war-time turmoil. This, however, did not last long. The authoritarian regime, had been fuelling opposition that eventually erupted in an August 1944 anti-fascist uprising. This was ruthlessly suppressed by the German troops that marched into Slovakia until eventually pushed away by the Soviet Army in 1945 (Steiner, 1973, chap.7).

The end of the Second World War brought two major developments that had important ramifications for Slovakia. First, Czecho-Slovakia was quickly re-established and the fate of Slovakia was once again linked to the fate of a wider unitary 'nation-state' (Steiner, 1973). Second, owing to the Yalta Agreements between the world powers, this 'nation-state', after being liberated by the Soviet troops, was incorporated into the Soviet sphere of influence in the post-war Europe. This had critical ramifications for Czecho-Slovakia. Following the Communist coup in 1948 the country firmly 'decided' to follow the road to socialism. This 'decision' is particularly dubious for Slovakia, where in contrast to the Czech lands, the Communist Party never really won a majority of votes (see Steiner, 1973, p.80). Thus what followed could be seen as the 'imposition of communism' and 'radical solution to industrialisation' (Kirschbaum, 1995, p.231) in catholic and agrarian Slovakia. With or without its will, Slovakia became a part of the 'socialist experiment' (Krejčí and Machonin, 1996, Chapter 8) based on state ownership and central economic planning (see also Šulc, 1998; Smith, 1998). This economic structure was supported by a particular polity. In theory, power was supposed to belong to the working class, but in reality the power was held by the Communist Party apparatus and this was ultimately dependent on decisions taken in Moscow, beyond any control of Slovakia. For some this represented 'one of the greatest tragedies of its history' (Kirschbaum, 1995, p.231).

However, as a matter of fact, not everything was happening against Slovakia's interests. Indeed, part of the 'socialist experiment' was to achieve both social and regional equalisation. In the Czecho-Slovak context this meant not only bridging the social divide between rich and poor, but also closing the historic gap between the industrialised Czech lands and economically lagging Slovakia. In addition to this commitment, several other factors justified the massive redistribution of resources that followed and which remained a 'permanent factor' (Krejčí and Machonin, 1996, p.101) of the state-socialist era[5]. Firstly, the economic development of Slovakia was seen as an answer to the 'Slovak question' – i.e. reducing the nationalist threat to state unity (for which there was a historical precedence in 1930s). Secondly, industrialisation was seen as part of social engineering by building a 'missing' working class – the backbone of socialism – which was lacking in backward agrarian Slovakia. Thirdly, a strong economic base (including armaments production) further away from western borders was considered desirable for geo-strategic military reasons in the context of the emerging Cold War (Smith, 1994, p.410).

Thus, sponsored by sustained capital transfers from the Czech lands (Krejčí and Machonin, 1996, p.100-104; Pavlínek, 1995) post-war Slovakia underwent 'forced industrialisation' (Smith, 1998). There is little doubt that this massive redistributive policy made a major impact. Indeed, Slovakia experienced rapid economic growth[6] and a strong convergence tendency with the Czech lands[7] (Pavlínek, 1995; Krejčí and Machonin, 1996; Smith, 1998). By 1970 the economic differences between the two parts of Czecho-Slovakia had nearly disappeared (Pavlínek, 1995, p.358). However, the downside of this accelerated development of the Slovak economy was that it was firmly integrated within the economic system of the Soviet Block and the Council for Mutual Economic Assistance (CMEA). It relied on the extensive mode of accumulation (Smith, 1998) mostly based on energy and raw material dependent heavy industries like engineering, metallurgy and chemical industry (Smith, 1998, p.128; Pavlínek, 1995, p.354) with an important element of an armaments industry (Smith, 1994, 1998). This economic structure represented an important 'hard' state-socialist legacy (cf. Chapter 4) whose sustainability became tested at the moment of 'transition' to the market economy (see below). Nevertheless, it has to be acknowledged that the post-war period brought an unprecedented improvement of standards of living in Slovakia and considerable progress was made in many other

[5] Transfers accounted in average for 15.2 % in the period between 1950-1959, 10.6% (1960-1969) and 7% (1980-1989) of the annual Slovak 'net material product' (see Krejčí and Machonin, 1996, p.103).
[6] Accompanied by rapid urbanisation (Pašiak, 1990).

[7] This, however, on the background of Czecho-Slovakia loosing competitiveness vis-à-vis other advanced countries (Pavlínek, 1995, p.357).

areas including health care, education, science and culture. These could be considered as positive legacies of state-socialism.

Meanwhile, it has to be admitted that this development did not solve the 'national' question as expected. In fact, with the economic equalisation between the two parts of Czecho-Slovakia nearly achieved, the political imbalance between the two nations become more visible and constitutional change more pressing. The window of opportunity for Slovak aspirations arrived with the 1968 'Prague Spring', attempting to create 'socialism with a human face' (see Steiner, 1973). Indeed, one of the measures intended within this wide-ranging democratisation project was the federalisation of Czecho-Slovakia. Following the Soviet military invasion in August 1968 this was probably the only reform that actually survived. On the 50th anniversary of the first Czecho-Slovak Republic (28 October 1968) the Treaty of Federation was signed. This was a major constitutional change and an important step for Slovakia despite the fact that real autonomy remained limited (Steiner, 1973) under the following twenty years of neo-stalinist 'normalisation' (Krejčí and Machonin, 1996; Šulc, 1998). True democratic autonomy remained an unfinished business (Steiner, 1973).

'Normalisation' not only affected the political atmosphere, it also froze intended economic reforms (Šulc, 1998) and cemented the extensive model of development (see Smith, 1998). Thus even the relatively successful Czecho-Slovak economy (Cox and Mason, 1999, p.74) began to experience growth performance difficulties. The country slipped further behind its western competitors (Pavlínek, 1995, p.357; Šulc, 1998) as the 1970s and the 1980s saw economic growth rates declining dramatically (Smith, 1998) possibly also reflecting the increasing economic pressure under which the Soviet system as a whole operated (cf. Clarke, 1993b; inter alia; cf. Chapter 4 of this thesis). Indeed, the growing gap in standards of living with its western neighbours (Germany, Austria) was one of the reasons why the eventual fall of state-socialism in 1989 was met with such widespread popular applause. The 'velvet revolution' brought the first free democratic elections in 1990 in which the Communist Party lost power, clearing the way for all-embracing socio-economic change amid the end of the Cold War. Ironically, this new democratic beginning marked the end of Czecho-

Slovakia. Indeed, with the arrival of the new geo-political situation, the reasons for economically supporting Slovakia disappeared overnight. The only remaining factor was an emotional attachment to Czecho-Slovak unity amid emerging powerful centrifugal forces. But as Krejčí and Machonin (1996, p.104) noted, when 'on the Czech side the pragmatists won the day, the Slovaks lost their bargaining chips'.

In 1991, the political and economic 'transition' was launched (Adam, 1995; Mertík, 1995; Šulc, 1998) along the lines of the neo-liberal 'model scenario' discussed in Chapter 4. Much has been expected by the peoples of Czecho-Slovakia from the 'transition'. Democracy and freedom, the 'return to Europe' and above all, economic catch-up with the West, were among the aspirations. In return, much has been expected from Czecho-Slovakia (Brown, 1994, p.50). However, the country itself disappeared from the map of Europe (Brown, 1994, p.50) amid economic problems, political polarisation and regional fragmentation (Pavlínek, 1995). The process of disintegration of Czecho-Slovakia represents a good example of a 'vicious circle' scenario introduced in Chapter 4 and will be examined in a more detail in section 7.5 of this Chapter. Meanwhile, it is important to notice that in contrast to 'vicious circles' elsewhere in Eastern Europe, the disintegration process between Czechs and Slovaks was resolved by political means. Thus following the 'velvet divorce', Czecho-Slovakia peacefully *defederated* into two independent republics on January 1st 1993. For Slovakia a completely new Chapter of history opened. For the first time under democratic circumstances Slovakia gained full political and economic autonomy. However, despite winning independence, the country did not free itself from its own historical legacies described above nor from the power of the wider political economy, which will be examined in turn.

7.3 The wider political economy

Indeed, the case of Slovakia reveals just how much the fortunes of a small 'independent' region-state depends on the wider political economy. After liberating itself from the constraints of the Czecho-Slovak 'nation-state' (while losing federal subsidies) and itself becoming a 'nation-state', Slovakia directly exposed itself to the power of wider international political economy. This international political economy created a new set of opportunities and challenges that manifest themselves through the combination of market forces (trade, foreign direct investment (FDI), and financial capital) and the workings of international institutions. Each deserves closer examination.

Trade

In the neo-liberal view (Sachs, 1990) **trade** was suppose to be one of the mechanisms to achieve economic convergence between the East and West. The reality, however, proved to be more complex and trade could be seen as providing important incentives but also powerful constraints (cf. Chapter 4). The Slovak economy is a case in point. As already mentioned, Slovakia's economy was built under state-socialism as an integral part of the CMEA economic system. This meant that both imports and exports were inextricably linked with the economies of other state-socialist countries, especially the USSR. But by the end of 1980s, economic relations between the USSR and its satellites became severely perturbed (Smith A.H., 1994) and eventually broke-down in the early 1990s after the economic and political collapse of the USSR (Clarke, 1993b). For Slovak producers this created a difficult situation. On the one hand, imports of raw materials and fuels from the former USSR had to be paid in convertible currency in world prices, while on the other hand, Eastern European markets virtually collapsed. Meanwhile, the small domestic market was further depressed as a result of the 'shock therapy' (Gowan, 1995). Such a situation could not have been resolved without dramatic changes to the country's trade regime. Indeed, alongside other CEECs (Smith A.H., 2000), Slovakia underwent a profound re-orientation of trade from Eastern markets towards 'West Europeanization' (Smith, 1998, p.200). In 1999 the share of the EU on Slovak exports and imports reached 60.1 per cent and 51.9 per cent respectively (Kárász et al., 2000) as the EU became the country's biggest trading partner.

There is no doubt that such a dramatic change was aided by the Association Agreements[8] that liberalised trade between the EU and the CEECs (including

[8] Later called Europe Agreements

Slovakia)[9] (Smith A.H., 1994). Observers agree, that the recovery of the Slovak economy in the mid-1990s (see section 7.4) was indeed export-led (Smith, 1998, p.199; Morvay, 2000). The liberalisation of trade with the West, however, is a double-edged sword. Following the removal of trade barriers, in line with the general pattern found in the CEECs (see Chapter 4), the Slovak domestic market became flooded by Western products (Smith, 1998, p.199; Gowan, 1995, p.24), contributing later to a chronic negative trade balance and subsequent current accounts deficit (Kárász et al., 2000; GO SR, 1999, p.5). Meanwhile a detailed analysis of Association Agreements shows that in several sensitive commodities, considerable EU barriers for Eastern exporters remained operational (Gibb and Michalak, 1994; Williams et al., 1998; Smith A.H, 1994; inter alia). Furthermore, from a longer-term perspective, the CEECs seem to have difficulty trading more sophisticated commodities (cf. Myant, 1999a). This includes Slovakia whose exports are found to be of relatively low value added (see Outrata, 1999). These emerging trade patterns seem to correspond to 'hub-and-spoke' economic relations between the East and West evoked by Gowan (1995, p.17, 28) and to contribute to the reworking of socio-spatial divisions of labour in Europe (cf. Smith et al., 2002; Williams et al, 1998, p.140) to which Slovakia is increasingly subjected. Being one of the smallest and one of the most opened national economies among the CEECs[10] (see Smith, 1998, p.199) foreign trade represents a 'key determinant' of Slovakia's economic development (Kárász et al., 2000, p.18). Yet, key Slovak exports are made up of a narrow commodity structure (Morvay, 2000, p.27; OECD, 1996c) which is very sensitive to cyclical fluctuations on external markets. Slovak fortunes thus inextricably depend on the wider international political economy outside direct Slovak control.

Foreign Direct Investment (FDI)

Another important element of the wider political economy is **foreign direct investment** (FDI). It was heralded by neo-liberals as yet another vehicle for economic

[9] Smith A.H. argues that the Association Agreements created an anomaly whereas EU members gained better access to the market of any one East-Central European country than the other Visegrad countries themselves (Smith A.H., 1994, p.16). This anomaly was later reduced by progressive liberalisation within CEFTA.

[10] In 1993 Slovakia recorded export dependency rate of 49 per cent, the highest among Visegrad countries (Smith, 1998, p.199)

development, employment, high wages, technology transfer, and the eventual economic catch-up of the East with the West (see Chapter 4). Again the reality is somewhat different. As revealed in Chapter 4, the FDI inflow into the CEECs remained relatively low (Smith, 1998, p.253, note 44; Pollert, 1999a, p.112; EBRD, 1998) and where is does occur, it is highly unevenly distributed among countries and regions.

Slovakia is one of the countries of Central and Eastern Europe where FDI failed to establish a significant presence during the 1990s (Ferenčíková et al., 1997). Indeed, in per capita terms, FDI in Slovakia remained well below levels recorded in the Czech Republic and Hungary, and lagging behind the Polish figure (EBRD, 1998). Such poor performance could be attributed to various factors. It is likely, that investors remained sceptical about the economic viability of the Slovak industrial structure, further compounded by doubts about early EU membership. This was not unrelated to perceived political instability and uncertainty about the country's overall political and economic direction (see also Williams et al., 1998, p.139; Smith, 1998). On the Slovak side, meanwhile, despite proclaimed interest in receiving FDI, very little has been done in practical terms. Institutional structures for attracting FDI appear to be inadequate (see more in section 7.6). Furthermore, the mid-1990s saw in fact a hesitancy in accepting foreign capital and other forms of external participation in the Slovak economy (see Smith, 1998, p.233-234) and official privatisation policy favoured domestic investors (see Smith, 1998; Williams et al., 1998, p.139). Thus, up until the end of the 1990s big FDI projects in Slovakia remained rather isolated phenomena (see Pavlínek and Smith, 1998).

Furthermore, FDI contributed to an uneven process of transformation as incoming investment clearly favoured the most profitable or potentially profitable (existing) enterprises. In geographic terms, most of the investment occurred in the capital city of Bratislava exacerbating the country's regional inequalities (see section 7.7). Where FDI penetrated into more peripheral regions this did not necessarily translate into improved economic and social conditions (Pavlínek and Smith, 1998; Smith, 1998; Smith and Ferenčíková, 1998). Taken together, the expected transformative effects of FDI for the economy as a whole did not materialise (Smith, 1998, p.236).

Nevertheless, FDI represents yet another element of progressive incorporation of Slovakia into the wider political economy and international divisions of labour.

A flagship investment of Volkswagen (VW) in BAZ Bratislava[11] is a case in point. VW took over an existing plant while shifting to a reliance on external (German) sourced inputs and exports markets and integrating it into VW's global strategy of cutting production costs of niche market products. Thus, VW Bratislava is directly integrated with trans-national production networks and supply chains. Yet, at the same time, it created an 'enclave development' in which VW Bratislava remains isolated from local linkages and the national economy[12] (Smith, 1998, p.236-7; see also Pavlínek and Smith, 1998). Besides, as with other FDI ventures, appropriated value seems to be flowing in the East-West direction (cf. Smith et al., 2002) thus forming part of an emerging particular geometry of European and global value chains. More generally, such value chains contribute to a particular position of the Slovak economy within the wider international political economy where 'the role for Slovakia [is that of] a cheap, moderately skilled labour reserve' (Smith, 1998, p.249). Further direct insertion of the Slovak economy into the international value networks occurred in the 1998-2002 period when foreign investors were allowed to gain control over major state banks, telecommunications and energy sectors (see also section 7.5).

International financial capital

Another important factor that needs to be taken into consideration (often omitted) is financial **capital** and the workings of the financial markets (cf. Kolodko, 2000). However, as far as capital markets in Central Europe remain underdeveloped (Baláž, 1996), there are two main mechanisms through which the power of financial capital is manifested - the mechanism of borrowing and debt and currency exchange rate fluctuations. With regard to the former, it is useful to note that Slovakia (together with the Czech Republic) inherited low initial levels of foreign debt (in comparison to Poland or Hungary) (Baláž, 1996, p.256). Nevertheless, Slovak external debt was

[11] BAZ Bratislava was built during the state-socialist period as a part of effort of Slovak policy makers to achieve greater economic autonomy within Czecho-Slovakia. However, the plant was used mainly for component production for Skoda (see also Pavlínek and Smith, 1998).
[12] More recently there have been attempts to embed the plant by supporting supply-networks.

growing through the 1990s (Kárász et al., 2000, p.41) as both government and the business sector relied on borrowing from Western creditors (interview NBS, 1999). Credits could be seen as important incentives for the economy, however, they quickly turn into a constraint when loans *and* interest have to be paid back (cf. Kahler, 1998). The level of external debt of Slovakia is already a matter of concern (interview NBS, 1999). Indeed, there is a danger that a 'vicious circle' can arise where the difficulty of paying back original loans, will be translated into a difficulty to get new ones. Usually, if new loans are secured at all, they come with an increased cost (higher interest) further compounding the problem. At best such a scenario can contribute to 'fiscal squeeze'. At worst, a country can fall into an 'indebtedness trap' resulting in a 'fiscal crisis' of the state (cf. Kahler, 1998).

Indeed, conditions for the CEECs for borrowing were not very favourable in the 1990s reflecting a general uncertainty about the region. Slovakia's position was worse that that of Hungary or the Czech Republic given the economic and political problems experienced (see more in sections 7.4 and 7.5). This was reflected in the investment ratings of the country and was translated into more expensive loans in comparison to its two neighbours (MESA10, 1998; GO SR, 1999). One way or another, the above integration with international financial markets represents a particular form of insertion into socio-spatial value chains that is characterised by uneven relations between (Western) debtors and their (Eastern) creditors. Slovakia is now directly implicated in these relations. In addition, international currency moves and exchange rate fluctuations, that are largely beyond Slovakia's control, have direct powerful effects on debt repayments, with important repercussions for the Slovak economy as a whole (interview Kozlík, 2001).

Slovakia and international organisations

Finally, the role of international organisations such as the EU, NATO, IMF, WB, EBRD, OECD and WTO needs to be taken into consideration. These organisations act as powerful promoters of neo-liberal 'transition' and political liberalisation and have maintained a powerful role in Central and Eastern Europe (see Chapter 4). Through the set of incentives and constraints that they impose, they are directly or indirectly influencing the economic fortunes of CEECs. This is a critical area where independent Slovakia literally had to 'negotiate' its position.

It is fair to argue that the initial position of Slovakia was rather difficult, as the country was facing several challenges. These included; the transformation to a market economy amid an economic slump and growing unemployment (see section 7.4), the transformation of a faltering industrial economy, attempts to join the EU combined with the challenge of building an independent state following the break-up of Czecho-Slovakia. There is no doubt the creation of independent Slovakia was accompanied by suspicion by international organisations over Slovakia's political direction and economic viability. As Brown (1994, p.64) put it, the 'Slovak' question had became 'Slovakia' question.

Nevertheless, all the above mentioned organisations played their role in instituting socio-economic change in Slovakia. In the early stages of economic transformation, missions of the IMF and the World Bank probably played critical roles. Their assistance, however, was not without conditions attached (see Smith, 1998). The WTO, which Slovakia joined in 1995, and the OECD of which Slovakia has been a member since 2000 played their part in constraining the Slovak economy, as the country had to comply with the liberalisation of trade and financial flows as part of its membership obligations (cf. EBRD, 1998, p.188; Jakoby et al., 2000, p.466).

However, throughout the 1990s, it was probably the European Union that became the single most powerful international partner for Slovakia. The prospect of EU membership is in a way seen as the ultimate goal of the transformation process, and few have doubts about the positive effects of such membership. Successive Slovak governments proclaimed that EU integration was a top priority – one that through the 1990s enjoyed popular support. However, the process of joining the Union itself could be seen as promising attractive incentives while imposing powerful constraints. Tangible economic incentives were the technical and financial aid as part of the PHARE programme that was supposed to ease the pre-accession process. The overall amount of candidate countries assistance was so far low and of problematic value (see Gowan , 1995, p.34-39). Furthermore, in the Slovak case, effective use of this aid was hindered by the difficulties in EU-Slovak political relations under the Mečiar government as well as the low absorption capacity on the Slovak side (see section 7.6).

Meanwhile, powerful constraints have been in operation. These stem from the conditions that candidate countries have to fulfil in order to join the 'rich club', including approximation and enforcement of law comparable to that existing in member states, but also creating an overall economic and political framework in accordance with EU standards. In case of non-compliance with the 'rules of the game', the EU is ready to step in as a disciplining force. The effect of this was fully felt in Slovakia after the EU decided to exclude the country from the first wave of negotiations for EU entry due to the non-compliance with *political* criteria (i.e. a perceived democratic deficit). The damage was compounded by the subsequent decision of NATO to exclude Slovakia from its first eastward expansion while neighbouring Poland, Hungary and the Czech Republic were included. These decisions had important implications for Slovakia's international credibility and had repercussions for the domestic economy and polity.

After 1998 the situation changed dramatically as the new Slovak government devoted enormous effort to putting Slovakia back on track for integration with both NATO and the EU. In relation to the latter, the government hoped to catch-up with the 'first group' and to create conditions for early entry into the Union. While this stratagem seems to be working, it is not without problems and contradictions. On the legal side, the effort to achieve quick approximation of law was remarkable. However, as one of the senior Slovak officials disclosed, legislation was often rash at the expense of coherence of the country's legal system, while stating bluntly that '[approximation laws] are "bad", but have priority' (interview, senior Slovak official, 2000). Furthermore, opposition parties (such as *Smer*) accused the government of advancing negotiations without taking into due account national economic interests (see *Financial Times*, 12 August, 2002).

Meanwhile, the biggest contradiction emerges between the EU integration effort and market liberalisation. Not only are the two processes not necessarily mutually selfsupporting, they often seem to go against each other. Indeed, the recent attempt to further liberalise the economy in order to bring Slovakia *closer* to EU integration, created several paradoxical outcomes. It appears to further destabilise an already fragile economy, contributes to growing social and regional polarisation and, last but not least, fuels political conflict. All these outcomes (explored later in the Chapter), in fact, could be seen as bringing Slovakia further *away* from the ideals of the European Union. Solutions to these problems at the national level become problematic. Indeed, social and regional polarisation is reaching alarming proportions precisely at the moment when the state is attempting to reduce its social and regional redistribution role. Furthermore, there is a direct contradiction between neo-liberal reform and the practical needs of EU integration in terms of institutional capacity. Indeed, neo-liberal pressure for the state to reduce its administrative burden is coming precisely at the moment when extra administrative capacities and institutional resources are needed for EU accession. Finally, an additional paradox emerges in relation to the 'knowledge economy'. The EU is committed to becoming 'the most competitive knowledge economy in the world' (cf. Chapter 1), however, in candidate countries including Slovakia, marketisation apparently contributes to the decline in indigenous R&D activities and institutions on which long-term competitive 'knowledge economy' could be built. Taken together, the combination of the powerful external forces could be seen as contributing to the 'vicious circle' that will be explored in detail in section 7.5. Meanwhile, it has to be acknowledged that the combination of market forces (trade, investment, financial capital) and the workings of international organisations has a direct impact on Slovakia's position within international divisions of labour and ultimately on the country's economic performance to which we now turn.

7.4 Economic performance

Owing to the historical circumstances discussed in section 7.2, Slovakia at the beginning of the 20th century was characterised by a relatively low initial economic activity level. This, for the most part, agrarian economy with only a limited industrial base was lagging considerably behind the rich industrial Czech economy – the contrast that became much too evident after the creation of Czecho-Slovak Republic in 1918. After the Second World War, the state-socialist regime was committed to overcoming relative Slovak social and economic backwardness. Through 'forced industrialisation', (Smith, 1998) the country achieved impressive economic growth and (due to factors discussed earlier) the dramatic improvement of social and economic conditions. Full employment and growing real standards of living (Cox and Mason, 1999, p.73) characterised the economy despite the economic slowdown of the late 1970s and 1980s.

The eventual collapse of state-socialism in 1989 brought about major economic change. For Slovakia this was a critical time as the economic structure, built under the state-socialism, became severely tested by marketization and globalisation (Smith, 1998). The 'shock therapy' introduced in January 1991 by the Federal government (Dyba and Švejnar, 1994; Šulc, 1998; Švejnar, 1997; inter alia) had shocking outcomes (see Adam, 1995; Pollert, 1999a). The depth of 'transitional recession' was surprising, further compounded by the disintegration of CMEA, the virtual collapse of Eastern markets and the simultaneous attack of Western competition on the domestic market. Within the first year of 'transition', Czecho-Slovak gross domestic product (GDP) dropped by 16 % and unemployment jumped from zero to 6.8 %, while inflation reached 58 % (OECD, 1993, p.113). The impact of the 'transitional recession' had highly uneven regional impacts. Owing to its unfavourable economic structure and dependency on collapsing Eastern markets, Slovakia was hit harder and suffered a disproportionate share of the decline of GDP and jobs. The Economist (1999) estimates that in 1991, the first year of economic 'transition', the GDP of the Czech Republic dropped by 11.6% as compared to 14.6% in the Slovak Republic. A year later, Slovak GDP shrank by a further 6.5% as compared to 3.3% in the Czech Republic. At the heart of the decline was the industrial economy. According to UNIDO (1992; cited in Pavlínek, 1995) industrial production in 1991 declined by 19.7% in the Czech Republic, but almost 25% in Slovakia.

However, the most dramatic disparity between the two Republics had appeared in term of job losses (see ***Figure 7.1*** in Appendix). Clearly, unemployment grew much faster in Slovakia than in the Czech Republic. Following the first year of the 'shock therapy', joblessness in Slovakia in December 1991 reached double figures (10.4%) in contrast to the Czech rate of 4.1%. During the second year of 'transition' unemployment in the Czech Republic is actually said to have declined to 2.7% but in Slovakia it climbed to 13.5% (Pavlínek, 1995, p.370, note22). The OECD (1996d, p.37) noted that the uneven distribution of unemployment became the leading regional problem within Czecho-Slovak Federation. In retrospect, growing economic disparities appeared to be more than just a 'regional' problem. Indeed as it will be demonstrated in section 7.5, the economic disparity between Slovakia and the Czech Lands proved to be critical for the future of the whole state as an important factor behind the eventual disintegration of Czecho-Slovak Federation (see also Pavlínek, 1995). This split was eventually agreed between the Slovak Prime Minister of Vladimír Mečiar and the Czech Prime Minister Václav Klaus.

On 1st January 1993, Slovakia emerged as an independent trading nation amid fears and speculations about its economic future. As already mentioned earlier, international institutions were sceptical about the economic viability of the Slovak economy. Grim predictions, however, did not materialise. Not only did the Slovak economy survive, but in fact it did surprisingly well[13]. Initially, the first year of independence saw the further deterioration of the economic situation. GDP dropped by 3.7% and unemployment reached an alarming level of 14.4%, peaking at 14.8% a year later (Morvay, 2000). Economic difficulties were accompanied by growing political tension and instability culminating in 1994 with the fall and the subsequent re-emergence of HZDS-led government of Vladimír Mečiar[14].

Amid the political turmoil (see more in section 7.5), however, the year 1994 was a turnaround for the economy. For the first time since the transformation started the Slovak economy saw a positive growth of 4.9%. A year later Slovakia enjoyed one of the highest rates of output among 'transition' countries with GDP soaring by 7.4% (OECD, 1996e, p.135). The strong growth continued in the subsequent years as the Slovak GDP increased by 6.6% in 1996, 6.5% in 1997 and 4.4% in 1998 (Morvay,

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[13] Economic performance of Slovakia, however, was overshadowed by the country's bad political reputation after becoming 'one of Eastern Europe's new problem children' (Brown, 1994, p.50).
[14] HZDS formed a coalition with Slovak National Party (SNS) and Association of Workers of Slovakia (ZRS).

2000, p.54) making the country one of the fastest growing economies in the region (see The Economist, 1997, p.47) and giving some foundation for the term the 'Slovak economic miracle' (Smith, 2000, p.153). Indeed, such a positive trend took observers by surprise (cf. OECD, 1996c, p.1). A particular feature of this performance was that is was achieved without substantial participation of foreign capital as FDI inflow remained relatively low during that period (see above). This does not mean that the external economic environment did not play an important role. Indeed, the main driving force behind the 1994 and 1995 growth figures was a surge in export activity (Smith, 1998; Morvay, 2000) that formed an important part of the remaking of economic relations with the international political economy considered in section 7.3. However, it appears that domestic factors played an increasing role behind the growth in subsequent years (i.e. between 1996 and 1998).

In particular the role of the Slovak government proved to be an important factor behind this growth through the expansion of public expenditure (cf. Tóth, 2000) and the realisation of major infrastructural investments. Behind this 'expansionist financial policy' of the government was a 'diversion from liberal models' of 'transition' and the growing emphasis on the role of the state and the social dimension of transformation (Morvay, 2000, p.40; see also Haughton, 2001). There were also more prosaic reasons – the effort to accomplish major investments initiated under state-socialism such as the gigantic Danube Dam at Gabčíkovo and Mochovce nuclear power plant and to make them useful for the national economy (interview Kozlík, 2001). Further economic stimulus was expected from an ambitious motorway construction programme. Besides its obvious long-term transport infrastructural importance and being an additional effort to utilise idle domestic construction capacities and its labour, it was believed that such programme could trigger multiplier effects for the struggling domestic industrial economy (interview NBS, 1999). In particular, it was believed that engineering companies would benefit by providing machinery necessary for the motorway construction. This, however, proved illusionary as domestic engineering companies could not keep up with the construction rate and the bulk of the machinery was imported from abroad (interview NBS, 1999) contributing to a growing trade imbalance. However, the rate of infrastructural development continued apace and probably even accelerated with the approaching critical general elections scheduled for September 1998, where infrastructural achievements played an important part of Mečiar's HZDS election campaign. Even a top HZDS economist and former Deputy Premier and Finance Minister Sergej Kozlík admitted in an interview (July 2001) that the rate of public expenditure was probably unsustainable and was to be reduced in the aftermath of the elections.

Despite these massive investments of 'nationalistic Keynesianism' unemployment remained rather high (one of the highest in the region) showing only a modest decline from 14.8% in 1994 to 12.5% in 1997 (Morvay, 2000). Furthermore, the particular mode of growth described above contributed to growing macro-economic imbalances. Indeed, after 1996, the Slovak economy displayed signs of 'overheating' alongside a growing trade deficit. In 1998, the current account deficit of the balance of payments surpassed 10% of GDP for the third consecutive year and the (gross) foreign debt reached 60% of GDP. Growing indebtedness of the public sector was accompanied by a growing fiscal deficit of government (GO SR, 1999; see also Marenčín and Beblavý, 2000). GO SR (1999) further argued that a two-digit current account deficit is unsustainable and that 'the Slovak economy avoided an acute financial crisis in 1997-98 only due to the relatively low integration of Slovak financial markets with the rest of the world' (GO SR, 1999, p.5). In his overall assessment Morvay (2000, p.17; author's translation) suggests that 'Slovakia created an impression of a successful country' but that the possibilities of economic growth based on demand-side were quickly exhausted.

A 'major change in the conception of transformation' and 'return to values of liberalism and neo-institutionalism' (Morvay, 2000, p.45-46) were associated with the new coalition government that replaced Mečiar's administration after the September 1998 general elections. In the name of restoring 'economic balance' a sequence of austerity measures have been introduced since 1999 (Jakoby et al., 2000) aiming to reduce public expenditure and domestic consumption and marked a major disengagement of the state from the economy. In addition, price liberalisation packages and a new wave of privatisation formed a part of what *Business Central Europe* named 'brutal reform' (see BCE, 1999, p.38).

The immediate effects of such reform were indeed dramatic. GDP growth was slashed amid growing inflation, a surge in the trade deficit, mounting foreign debt and overall destabilisation of the economic environment. The most visible outcomes were falling real wages and a rocketing unemployment rate reaching historical highs of 20.8% in January 2001 (Kozlík, 2001) and contributing to a sharp rise of regional disparities (see section 7.7). There was an important rise in the inflow of foreign capital (see Kárász, 2001), but this was mostly associated with the privatisation of the remaining state enterprises including gas and electricity networks, telecommunications and major banks. Some of these privatisation deals bear the mark of 'panic sales' (interview Kozlík, 2001) and represent another major jump of the economy into external control and its direct insertion into international value chains. After a sluggish 1.9% increase in 1999 and 2.2% in 2000, Slovak GDP growth was slowly improving but it remains to be seen how much room there is for a major recovery of a small open economy in the context of global economic slowdown.

In retrospect, the period of economic transformation in the 1990s could be seen as certain 'disillusionment' (Morvay, 2000, p.19). Indeed, when neo-liberal 'shock therapy' was embraced in 1991 few expected such a deep initial decline and subsequent economic difficulties. After a painful decade of 'transition', Slovakia was one of the first CEECs to eventually surpass its 1989 economic level (Kozlík, 2000, p.2; see also EBRD, 1998). However, economic convergence with the EU is proving difficult. Following the period of strong economic growth (1994-1998) Slovakia experienced slow convergence and approached 50% of average EU GDP level (cf. ***Table 4.1*** in Appendix) but then the gap started to grow again as Slovak GDP relative to the EU average slipped back again (cf. Kozlík, 2000, p.2).

On the background of these macro-economic figures, the Slovak economy and society experienced massive transformation. There was a substantial transfer of property from collective or state hands to private hands (both domestic and foreign). At least 85% of GDP is produced in the private sector (Kozlík, 2000, p.3; Morvay, 2000, p.19) while new social class relations are emerging (see Smith, 1998) amid growing regional and social polarisation (see section 7.7). In structural terms, the economy saw a major shift towards tertiarization (Morvay, 2000, p.20) as the share of tertiary sector in the value-added produced increased from 32.2 % in 1989 to 63.8 % in 1996. The share of industry (secondary sector) meanwhile declined from 58.3 % to 31 % (Outrata, 1999, p.127). The trend towards a 'post-industrial' economy, however, was not accompanied by growing 'knowledge' and/or 'value-intensity'. Indeed, the shift could be more attributed to the faltering industrial economy (Smith, 1998) and rapid growth of services that were previously suppressed or underdeveloped including financial services and retail (Outrata, 1999). Thus, the transformation towards a higher value-added economy remains a challenge for Slovakia (Outrata, 1999), while solving the growing unemployment crisis becomes a pressing social and political need. The role of Slovak institutions in stimulating the economy and the attempts to encourage a transformation towards the 'knowledge economy' will be now examined in more detail.

7.5 The institutional landscape

After examining the historical background, the wider political economy contexts and recent economic performance of Slovakia, the attention of this section focuses primarily on Slovak institutions and their role in economic development. The section will first attempt to trace the emergence of Slovak institutions in the context of historical developments before turning to more recent institutional changes. In line with the argumentation developed in earlier Chapters, it will be demonstrated that institutions themselves are part of wider social, economic and political struggles. Indeed, the disintegration of the Czecho-Slovak federation and the emergence of an independent Slovakia itself can be seen as an outcome of such struggles and provides a compelling example of a 'vicious circle' scenario occurring under 'transition', that has been discussed in Chapter 4. Furthermore, institutional developments within independent Slovakia clearly demonstrate that institutions can be seen as outcomes, objects and/or subjects of wider struggles. This will be highlighted in the example of the process of regionalisation of the country. The section will then move on to examine the ability of Slovak institutions to design strategies for tackling economic problems of 'transition' and to address imperatives of the 'knowledge economy'. The evidence presented will point to the fact that the unstable economic, political and social environment of transformation created rather unfavourable conditions for institutional building. In return, unstable institutional structures could be expected to have only a limited role in shifting the economic trajectories of the country.

Institutional development in context

It is useful to start by putting Slovak institutional developments into a historical context. Through the long periods of history, Slovak institutions were noticeable for their absence. In fact, it could be said that it was a 'miracle' (Steiner, 1973, p.7; de Bray, 1969, p.51) that the Slovak nation and its identity survived 'thousand years of alien domination' without formal national institutions[15]. The situation started to change in the late 18th and 19th century, on the wave of national awakening (see Kirschbaum, 1995; Seton-Watson, 1943).

In 1848, the Slovak National Council (*Slovenská národná rada* - SNR) was born declaring political autonomy of Slovakia from within Hungary. The political and cultural aims of the SNR were firmly connected to economic ones. As famously proclaimed by Ľudovít Štúr, the leader of the national movement, '[i]ndustrialisation cannot prosper in an unfree country ...It can flourish only as an organic part of national life under conditions of liberty' (cited in Steiner, 1973, p.11). In order to achieve liberty, the SNR even led a rebellion, albeit unsuccessfully, against Hungarian rule (Steiner, 1973; Seton-Watson, 1943). After the military and political defeat, national leaders began to focus on boosting national identity and consciousness through institutions like *Matica Slovenská* (The Slovak Mother). Following the consolidation of the Austro-Hungarian Monarchy (in 1867), however, the emerging Slovak institutions such as *Matica*, were ruthlessly suppressed (see Bosák, 1991, p.68).

The situation changed dramatically with the creation of the first Czecho-Slovak Republic in 1918. The Slovak language became one of the official languages and the Slovak identity and culture was preserved and strengthened[16]. The foundations of a

[15] Church and Christianity were probably the only significant institutions for a long period of time.
[16] This was despite official ideology of a 'Czechoslovak' nation (see Brown, 1994).

modern educational system were laid down and the first modern university opened in Bratislava in 1919 (Steiner, 1973, p.19). Besides, for the first time in the modern history, Slovaks had some political representation and limited influence over their affairs (Steiner, 1973). However, the idea of Slovak political *autonomy* which was guaranteed by the Pittsburgh Agreement signed by Czech and Slovak representations in USA in 1918 never came to fruition (Bosák, 1991, p.73; Steiner, 1973, p.18-19). Thus up until the late 1930s, Czecho-Slovakia was a unitary state and Slovakia was largely governed by the Czechs[17]. It was only after the Munich Agreement of 1938 (carving out border regions of Bohemia to Germany) that Slovakia eventually managed to achieve a 'fairly high degree of autonomy' (Steiner, 1973, p.34) and to create its own devolved regional government and Parliament, while losing southern Slovakia to Hungary (Baláž, 1995, p.359). In March 1939, Czecho-Slovakia ceased to exist as Germans occupied the Czech Lands, while the Slovak autonomous parliament declared independence under considerable external pressure (Steiner, 1973, p.37). Owing to these developments Slovakia entered a short-lived and controversial period of independence and, under particular war-time conditions, attempted to develop the institutions of a fully-fledged country.

After the Second World War, however, Slovakia was back to square one as Slovak institutions were largely superseded by the re-established Czecho-Slovak Republic. Furthermore, following the communist take-over in 1948, Slovaks were to be integrated into a 'socialist' society where the single most important institution was the Communist Party leaving little room for national sentiments. National sentiments were in fact actively suppressed and several Slovak communists (including later Czecho-Slovak President Husák) served prison sentences for 'bourgeois nationalism' (Steiner, 1973, p.93; Brown, 1994, p.53). As Steiner (1973, p.92) noted, the remaining Slovak institutions, gradually became 'empty symbols of Slovak nationhood'.

> 'Instead of dealing with specifically Slovak affairs, their role was confined mainly to the task of implementing all-state laws and instructions. Instead of directly promoting Slovak interests they became one of the many instruments

[17] See Steiner (1973, Chapter 3) for details about Czech dominated administration in Prague and Bratislava.

in the hands of the Czech Communists who were intent on fighting "unhealthy tendencies of local patriotism"' (ibid, p.92)

However, neither political pressure nor the economic development of post-war years could stop Slovak aspirations for more equal national status within Czecho-Slovakia. On the wave of democratisation protests of 1968, Slovak leaders managed to negotiate a *federal* settlement[18] (Steiner, 1973, chap.12-22). The constitutional law signed on 28 October 1968 coming into force on 1st January 1969 transformed Czecho-Slovakia into a federal country and gave Slovakia an unprecedented level of influence over Czecho-Slovak as well as over its own affairs (Steiner, 1973, chap.22). The Czecho-Slovak Parliament reflected the federal structure. It consisted of two chambers, the Chamber of the People, which had proportional representation of the Czech and Slovak deputies, and the Chamber of Nations where the Slovaks gained *parity* representation with the Czechs. Meanwhile the two constituent republics were formed, the Czech (Socialist) Republic and Slovak (Socialist) Republic, with their own 'National Councils' (autonomous parliaments with limited legislative powers) and governments.

Thus, 120 years after the first attempt to create the Slovak National Council, Slovakia gained control over several 'devolved matters' including education, culture and limited competencies in economic planning. Meanwhile, functions such as defence, foreign affairs, economy and finances, foreign trade, labour and social affairs etc. remained firmly in hands of the federal government in Prague (see Steiner, 1973, p.198; Kirschbaum, 1995, p.243-244).

As already pointed out in section 7.2, due to the particular historical circumstances, the above settlement meant only limited autonomy to Slovakia. Indeed, as Crawford (1996, p.140) noted, it was autonomy only in theory, not in practice. But whatever its limitations, this was another important step in Slovak 'nation-building' (Brown, 1994, p.54-55). Importantly, it also gave Slovakia an administrative and political platform from which subsequent battles could have been fought while creating a constitutional

[18] Not least thanks to Alexander Dubček, a Czecho-Slovak Communist Party leader of the 'Prague Spring', who was Slovak.

and legal basis for the modern Slovak statehood. All these factors became important following the fall of state-socialism.

Vicious circle and institutional responses to transformation

The fall of state-socialism in 1989 could be see as an institutional earthquake and subsequent transformation as creating a highly turbulent socio-economic environment. Within such an environment, significant economic, political, ideological, cultural and institutional battles were fought, having important consequences for the institutional landscape of Slovakia. Importantly, a powerful combination of economic, political and cultural processes created a 'vicious circle' that eventually resulted in the dissolution of Czecho-Slovak federation. Indeed, growing economic disparities between the Czech Republic and Slovak Republic (see section 7.4) following the introduction of 'shock therapy' played an important role in the process (Pavlínek, 1995). As soon as 1991, when the first transitional 'shock' hit the Federation, Slovakia witnessed growing electoral support for political forces seeking the transfer of more competencies from the federal level and ultimately more autonomy for this smaller Republic. More and more Slovaks were ready to believe that inter-republic disparities were the result of the policy of the Federal government (dominated by Czechs) that paid very little attention to Slovak economic 'specifics'. Moreover, the question of 'who subsidised whom' had been opened as 'transition' exposed economic relations between the two republics. Indeed, part of the market reform was a withdrawal of the state from the economy and the elimination of subsidies. But following the fall in inter-republic redistribution, there was a growing feeling in Slovakia that the Czechs were abandoning the Slovaks precisely at the moment when help was needed the most. Meanwhile, a growing number of Slovak economists and politicians argued that the economic sovereignty of Slovakia, with a reform programme adapted to its different economic structure, would be the right answer to its current problems (see Pavlínek, 1995; Dědek *et al.*, 1996).

The critical factor in such a situation was that processes of regional *economic* fragmentation (Pavlínek, 1995) were accompanied by the process of *cultural* identification and identity formation. Indeed, as soon as censorship was lifted and communist ideology removed, the search for new identities, including ethnic and/or national identity (re)started. In Slovakia, old national sentiments begun to surface again (see Brown, 1994) enhanced by the sense of a 'threat' to national survival. The awakening Slovak nationalism, nevertheless, did not necessarily mean a support for separation. Rather, for most Slovaks, democratisation was a chance to accomplish the search for more equal relations between the two federation-forming nations. The Slovak aspirations, however, were met with a 'lack of imagination' and sensitivity, or even 'neglect', on the Czech side (Brown, 1994, p.56-58). This only accelerated emerging *political fragmentation*.

Indeed, the two issues, the 'economic' and the 'national' one, eventually found a sound political expression. A massive *political split* appeared as a result of the second post-communist general elections in June 1992 as the two republics ended-up with political representations embodying two very different constitutional and economic agendas and resulting in a difficulty to create a federal government. A centre-left Movement for Democratic Slovakia (HZDS) led by Vladimír Mečiar emerged victorious in Slovakia, advocating an idea of '*confederation* of the two sovereign nations' (Brown, 1994, p.58) and supporting an idea of slower pace of economic transition. Meanwhile, in the Czech Republic, a right-wing Civic Democratic Party (ODS) became the strongest Czech political party[19]. Its leader, reformist Václav Klaus, continued to advocate the idea of 'shock therapy' with no room for regional variations (cf. Brown, 1994, p.61-63).

The two different concepts of economic reform ('shock therapy' vs. more gradualist approach) and the two different constitutional positions (federation vs. confederation) proved to be incompatible. The Czech representation was ready to compromise neither on the matter of constitution (Brown, 1994, p.58-59) nor on the matter of economic policy and maintained a position of '*one* federal state, *one* economic policy'. However, the continuation of the federal economic policy that seemed to disadvantage Slovakia, was clearly unacceptable for Slovak leaders. As a result of this powerful combination of economic, cultural and political processes a deadlock over the further

[19] For detail results of the elections see Mansfeldová (1998).

continuation of the economic transformation as well as the nature and scale of the political change appeared. The 'vicious circle' eventually resulted in a 'Velvet Divorce' accomplishing the emerging institutional split. By 1st January 1993, Czecho-Slovakia peacefully disintegrated into two independent nations. Federal level institutions were abolished and the two republics took over remaining federal competencies while becoming sovereign subjects of international law.

Several lessons can be drawn from the Czecho-Slovak case. First, it demonstrates that even most advanced CEECs had to face important economic and political problems and dilemmas directly linked to implementation of the 'transition' agenda. It supports the view that the way to capitalism is more complex than neo-liberal project admitted (Altvater, 1998; Smith and Pickles, 1998; cf. Chapter 4). Post-socialist transition is neither a simple nor necessarily an uni-directional process. The interplay of different processes unleashed by the transition may lead to deadlock, which limits the continuation of the 'transition' itself. The Czecho-Slovak 'vicious circle', for instance, had to be resolved by sacrificing the common state institutions.

Ironically, the prospect of integration into the EU played its role in the disintegration process of Czecho-Slovakia. Indeed, one of the pro-separation arguments on the Czech side was associated with the belief that independent Czech Republic would manage to join the EU sooner without crisis-ridden Slovakia. Meanwhile, on the Slovak side, the argument revolved around the question of future national representation in European structures. A Czecho-Slovak seat in Europe, it was feared, would be dominated by Czech interests. What Slovakia needed, it was argued, was its own representation in Brussels and its 'own star on the European flag'.

Secondly, there is an important lesson to be learnt from the uneven regional development that took place at the early stages of the Czecho-Slovak transition. *One* federal economic policy was implemented across Czecho-Slovakia at that time. The differentiated impact on regions of economic transition therefore cannot be explained in terms of differentials in policy agendas or speed of its implementation - an argument often maintained by neo-liberal rhetoric. Neither, should we be satisfied by partial explanations such as demographic differences, differences in generosity of provision of unemployment benefits and the like (see Dědek et al., 1996; for overview of factors specific to the Czecho-Slovak context). Rather, it proves that the bulk of uneven regional development that has accompanied an implementation of 'shock therapy' model is closely linked to structural economic legacies inherited from the state-socialist and pre-socialist era (see also Smith, 1998; Surazska *et al.*, 1996) and the way these legacies 'interact' with the imperatives of the wider political economy (Sokol, 2001). This strongly corroborates the arguments presented in Chapter 4 of the thesis.

Thirdly, the Czecho-Slovak divorce demonstrates how closely economic, political and cultural processes and struggles are interlocked with each other and how institutions are deeply implicated in these struggles. Indeed, the emergence of the independent Slovakia itself can be seen as an institutional response or a 'product' of such struggles. By gaining independence, however, Slovakia did not liberate itself from its own legacies or the wider political economy. Nor is independent Slovakia immune from important internal struggles that will be examined in turn.

Institutions and struggles in independent Slovakia

With the creation of the independent state, a principal condition for economic autonomy was fulfilled. Slovakia gained power to design its own institutions and policies that would be best tailored to its needs and specific economic circumstances. A window of opportunity opened for all the main 'stakeholders' to unite and to construct a kind of coherent strategy necessary for the country's long-term national economic development. From the economic governance point of view, the institutional power of Slovakia was indeed considerably strengthened. The country gained control over its micro- and macro-economic management and power to address both the supply- and demand-side of the economy. The process of designing coherent policy and strategy frameworks as well as creating institutional structures that would deliver them, however, proved to be rather problematic. The Slovak case thus demonstrates that within the conditions of post-socialist transformation, and given the constraints of historical legacies and the wider political economy, building institutional structures for an independent country itself can represent a considerable *challenge.*

Indeed, following the disintegration of Czecho-Slovakia, the independent Slovak Republic itself displayed signs of a 'vicious circle'. Thus, instead of the required national coalition building, the powerful interlocking of socio-economic processes led to an emergence of conflict situations, contradictions, polarisation and instability. Such an environment, it is argued here, could hardly be seen as a favourable for institution building. Furthermore, conversely, weak and/or unstable institutional landscapes can be expected to have only a limited impact on improving economic fortunes. In this way, institutions (their instability) may become part of a 'vicious circle' thus frustrating hopes for speedy and successful socio-economic transformation. In what follows, a brief account of factors contributing to the emergence of 'vicious circle' situations in post-independence Slovakia will be offered. Subsequently, the section will move on to highlight how various factors and processes intermeshed during the efforts to create elected regional tiers in the country. Finally, the section will point to the difficulties in constructing a coherent national economic strategy, and will highlight two proposals that seem to directly address the issue of the 'knowledge economy' in Slovakia.

Elements of the 'vicious circle' in independent Slovakia

Several powerful, intertwined, simultaneously operating and mutually 'reinforcing' negative factors could be said to have contributed to 'vicious circle' tendencies in Slovakia. These factors are rooted in economic, political, ethnic, social and regional processes. The first critical factor is represented by a problematic economic situation. The collapse of the economy in the early 1990s and the subsequent painful transformation formed a central feature of socio-economic development in post-socialist Slovakia. The economic difficulties described in section 7.4 proved to be a primary source of instability as central contributing factor to a 'vicious circle' tendency by fuelling the processes of political polarisation, social and regional fragmentation and contributing to ethnic divisions. Through these latter processes, the shaken economy could be said to have been *indirectly* affecting the stability of the

Slovak institutional landscape and its ability to produce a coherent development strategy (see below).

Besides, the difficult economic situation had *direct* implications on the operation of Slovak institutions. This was particularly so for 'knowledge-intensive' institutions, many of which were dependent on the state budget that was operating under considerable financial constraints throughout the 1990s (Tóth, 2000). The imperative of building institutional structures of an independent country created an additional strain on public finances (Baláž, 1995). The scarcity of financial resources meant that creating new institutions or even sustaining existing ones proved to be a considerable challenge. Consequently, several institutions of critical importance suffered, including universities, research institutes and state R&D institutions. These were generously funded under the state-socialism[20], but had to fight for survival under the 'transition' to the market. Similar situations had been found in the enterprise sector. It is therefore not surprising that in the first years of transformation, R&D expenditure as a percentage of GDP declined dramatically from 3.7 in 1989 to 2.2 in 1991 to 1.0 in 1995 and 1996 (Outrata, 1999, p.141; see also Zajac, 1997; Pišút and Kraus, 2000). Simultaneously, the number of R&D workers was halved from 36,607 in 1989 to 15,967 in 1992 (Zajac, 1997, p.1089; Zajac, 2001) amid a break-down of the state R&D system reflecting the broad pattern found elsewhere in CEEC (see also Radosevic, 1999; Williams et al., 1998, p.141-2). The Slovak Academy of Science, the country's main scientific institution, was among those affected (Zajac, 1997) as number of its employees was reduced by 48% from 6,220 in 1990 to 3,245 in 1995 (Rosa, 1997, p.230). Meanwhile, the higher education sector underwent an expansion in terms of numbers of students but accompanied by a steady decrease in expenditure during the 1990s, resulting in 50 % drop in funding per student (Pišút and Kraus, 2000). Unsurprisingly, Slovak universities are reported to have 'serious financial difficulties' (ibid, p.632). Thus in Slovakia, like in other CEECs, a 'transition' aimed at boosting economic development, paradoxically undermined the very institutional base on which the knowledge-intensive production and long-term competitiveness should be based (Myant, 1999a; Williams et al., 1998; see also below).

[20] In 1989, Slovakia's expenditure level on R&D was *above* the EU average (Zajac, 1997, p.1086).

Meanwhile, political polarisation and instability compounded the effects on the Slovak institutional landscape of the economic hardship. Indeed, the political turbulence proved to be another critical aspect of the 'vicious circle' tendency in Slovakia. The Slovak political scene of 1990s could be characterised in terms of fragmentation, polarisation, instability and bitter political feuds. Following the dissolution of the 'one-party polity', the first decade of transformation saw a large number of political parties being formed and dissolved, fused and fragmented, transformed and regrouped amid ruthless competition for power. With a risk of oversimplification, it could be argued that the main political conflict emerged between the Mečiar-led HZDS and its numerous opponents (cf. Mesežnikov, 1997, 1999) creating a polarised and turbulent political climate. Within the first five years of political transformation Slovakia had five different governments (cf. Mansfeldová, 1998) as a result of the power struggle. Among the main themes around which this struggle has been evolving included sharply polarised views on the matter of independence and the 'national' question (see Haughton, 2001), highly differentiated views on economic policy (see below), diverging visions on privatisation[21], and last but not least diverging preference on the style of government. Indeed, much responsibility for the polarisation of the Slovak political scene is usually attributed to Mečiar himself, his perceived authoritarian style of government and the undemocratic practices of his administration (see Mesežnikov, 1999; Szomolányi, 2001). The political struggle in mid-1990s grew to such a proportion that the EU expressed concerns over the stability of the democratic institutions in Slovakia, leading to the aforementioned exclusion of the country from EU membership negotiations

However, channelling well the widespread dissatisfaction with the 'transition' and playing with national sentiments of Slovaks, HZDS, in electoral terms, remained the most successful political party through the decade (Haughton, 2001). But amid mounting domestic opposition and pressure of international organisations (consistently indicating that there will be no NATO or EU integration with Mečiar), HZDS eventually lost power after the 1998 elections, despite the political manipulations that preceded them (see Mesežnikov, 1999) and the aggressive

[21] As one of the Slovak officials put it, 'there will be no political peace in Slovakia until the last stone is privatised' (personal communication, senior Slovak official, 1998). See also Smith (1998, p.207-215).

economic policy described earlier. The new government was formed as a broad 'left-to-right' coalition composed of all anti-Mečiar parties (Mesežnikov, 1999). But this uneasy coalition[22] itself nearly fell victim of a 'vicious circle' when growing economic problems, rampant unemployment, privatisation scandals and, last but not least, the disagreement over the regionalisation of the country (see below) led to growing tensions within the cabinet[23]. The coalition government remained in power through the full term, but went through a series of crises and saw the disintegration of participating political parties amid uncertain prospects for re-election. The run-up to the 2002 elections saw the further fragmentation of the political scene both within governing parties and the opposition[24] (Tancerová, 2002). Thus, a decade after gaining independence, Slovakia still remains far away from the kind of political stability needed for the formation of a national political consensus.

An additional dimension to the complexity of Slovak political life is wrought by ethnic fragmentation. Indeed, following the dissolution of Czecho-Slovakia where national issues played an important role, the emergence of independent Slovakia highlighted its own 'national' issues. In particular, the position of the Hungarian minority that accounts for nearly 11 per cent of the country's population (concentrated mainly along the borders with Hungary) became one of the burning issues (see Brown, 1994, p.63). The Hungarian minority in Slovakia is a residuum of the Austro-Hungarian past, but it remains an important force within the country's contemporary polity and society. The conflicts that emerged throughout the1990s contributed a great deal to political instability and had important implications for the creation of regional tiers in Slovakia (see Smith, 2000; see more below)[25].

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[22] The coalition government included the Slovak Democratic Coalition (SDK), the Party of Civic Understanding (SOP), the reformed-communist Party of the Democratic Left (SDL), and the Hungarian Coalition Party (SMK) (Smith, 2000, p.159; Mesežnikov, 1999, p.35). The leading coalition party SDK was in fact itself a coalition of five different political subjects including the Christian Democrats (KDH), the Democratic Union (DU), the right-wing Democratic Party (DS), the Social Democratic Party of Slovakia (SDSS) and the Green Party (SZS) (see Mesežnikov, 1999, p.66).

[23] There is no doubt that this directly affected the operation of state institutions. Indeed, information gathered through interviews conducted between 1998-2001 in Slovakia confirms intensive infighting within and between central government bodies, usually fought along political lines.

[24] The 2002 elections have eventually seen the return of the 'pro-Western' coalition following the claims from the Western diplomatic sources confirming hours before the polls that "we have interfered in the internal affairs of Slovakia. We have done so successfully"(FT, 2002, 17 September, p.8).

[25] The picture of the ethnic fragmentation in Slovakia is further complemented by the Roma minority, emerging as the most marginalised ethnic group for which social deprivation is often compounded by society's racial prejudices (see Vašečka, 2000).

Further terrain of conflict in post-socialist and post-independence Slovakia has opened up along the lines of social fragmentation. Conscious attempts have been made to bring state, capital and labour together as 'social partners' through social tripartite dialogue and annually concluded General Agreements (Myant et al., 2000; Machaliková, 1999; Svoreňová, 2000). However, a fragile 'social peace' has become tested several times during the 1990s. Meanwhile, the labour movement in Slovakia remains relatively strong but is facing growing challenges (interview KOZ SR, 2001). Indeed within the context of deepening economic crisis with real wages falling and unemployment reaching 20% of the workforce, trade unionists find it even harder to fight for their rights. Thus it seems that in Slovakia, like elsewhere in Central and Eastern Europe (Pollert, 1999b; Vickerstaff and Thirkell, 2000; see also Casale, 1999; Martin, 1999), organised labour and ordinary workers more generally, increasingly seem to be loosing ground in a battle for decent well-being. Meanwhile, the social divide is growing (see section 7.7) which in turn can provide a basis for the further political turbulence and possible social upheavals in the future. Taken together, the economic, political, ethnic and social processes described above represent powerful elements of the 'vicious circle' situations and conflicts in post-socialist Slovakia. One area where such a 'vicious circle' has manifested itself is related to the responses to regional fragmentation that proceeded apace through the 1990s.

Responses to regional fragmentation

Indeed, institutional responses to the uneven regional impact of socio-economic change in Slovakia highlight very well the challenges that the country is facing. Indeed following the disintegration of Czecho-Slovakia, where growing regional economic divergence played an important role (see above), Slovakia itself has experienced significant fragmentation of its own space-economy. After its emergence as an independent country, the regional problem *within* Slovakia became fully exposed. And as with the case of uneven development on the Czecho-Slovak level, regional fragmentation within the Slovak Republic became a part of the country's 'vicious circle' of the post-independence period. The scale of the regional problem will be presented in detail in section 7.7. Meanwhile, what follows below is an attempt to elucidate how the process of regional fragmentation interacts with the other aspects of the 'vicious circle'. Indeed, the case of the regional problem and responses to it, provide us with an excellent example of the powerful interlocking of economic, political, social and ethnic processes in post-socialist Slovakia that deserve closer examination.

It is important to start with an acknowledgement that as with the case of *social* conflict, there is no doubt that attempts were also made by the Slovak state to contain the *regional* problem. Indeed, the foundations of *regional policy* were laid down during the 1990s (Buček, 1992, 1999; Baláž, 1995; Rajčák, 1998; Finka, 2000; Hagovská, 2000; Nižňanský and Sirák, 1999; Sirák, 1999; Smith, 1998; Sokol, 1999). Several major impulses could be said to have prompted action by the state at the regional level. First, Slovakia's own constitution adopted in September 1992 explicitly stipulated the creation of self-governing regional tiers. This was regarded as an important part of the democratisation of society (Bitušíková, 2002) in line with the democratic values and subsidiarity principle of the EU. In addition, a practical value was expected in terms of creating institutional and policy instruments compatible with those existing in the EU in order to ensure balanced regional development. An additional impulse for regional policy formulation came through tripartite negotiations. Indeed, since 1995, via the General Agreements, the government was obliged to act in districts with 'high unemployment' of over 20 % (ÚSRSVT SR, 1997a; Sirák, 1999, p.430). In 1996 there were 16 such 'crisis districts' out of total number of 79 (ÚSRSVT SR, 1997a, p.1). However, by the end of the decade, with the level of national joblessness climbing to nearly 20 %, 35 out of 79 districts reported unemployment above that figure, three of them displaying unemployment above 30% (ŠÚ SR, 2001, p.40-41). Initially, programmes for 'crisis regions' were administered by the Centre for Strategic Studies (CSŠ). In the second half of the 1990s, the Office for the Strategy of the Development of the Society, Science and Technology (ÚSRSVT SR) emerged as a central body for designing and implementing regional policy. Its approach to regional problems has been described in more detail elsewhere (Sokol, 1999). However, given the institutional weakness and limited financial resources available, the impact of regional policy was minimal (Sirák, 1999; Smith, 1998) and regional disparities continued to grow (see section 7.7).

In institutional terms, nevertheless, it is useful to notice that besides the above mentioned regional programmes implemented from the central level by ÚSRSVT SR (see Rajčák, 1998; ÚSRSVT SR, 1997a) attempts were made to create institutional infrastructure in the regions. Indeed, several mini-RDAs emerged across Slovakia, alongside the network of BICs and RPICs (see more in ÚSRSVT SR, 1997a; Smith, 1997b, 1998, p. 216-224; Sirák, 1999, p.430-431). However, given the limited financial and human resources and missing know-how, these institutions had a problem to survive let alone to make a difference to struggling regions. As one of the Slovak officials put it, when assessing one of the pilot RDAs, 'the most important regional development contribution this RDA made was that it reduced the unemployment in the region by the three people it employed' (personal communication, Slovak official, 1998). And while such a statement is probably an exaggeration, it does point at the underlying weakness of the emerging regional institutional framework (cf. Sirák, 1999). In addition, plans to create a National Development Agency (cf. ÚSRSVT SR, 1997a) never materialised.

Meanwhile the entire institutional framework for regional policy saw a major overhaul as the new post-1998 government took a new approach (Hagovská, 2000). Regional development was formally given a higher priority and considered one of the central elements of the country's EU accession effort. Administratively the profile of regional policy was elevated after the competence was transferred to a new Ministry for Construction and Regional Development (MVaRR SR). However, Slovak policy makers confirmed (interviews, 1999-2001) continuing difficulties in establishing a solid institutional base for the design and implementation of the regional development strategy. In addition, as one critic put it, 'there is, in fact, no *Slovak* regional strategy', because strategic documents that were elaborated by MVaRR SR represent '...merely an attempt to meet requirements for EU funding' (interview, 2001). On the background of continuing administrative difficulties (such as lack of staff and staff training), legislative progress was achieved (interviews MVaRR SR, 2000-2001) and a long-awaited Law on Regional Development was eventually passed in 2001. In practical terms, however, the state limited itself in terms of instruments for state regional policy and now focuses solely on fighting unemployment by encouraging enterpreneurship – i.e. offering financial contribution for small business start-ups (interview MVaRR SR, 2001). Meanwhile, the territorial coverage of regional policy had to be extended to cover basically all regions of Slovakia (interviews MVaRR SR, 2001) as an economic and employment crisis engulfed the country. Besides, a new network of mini-RDAs was proposed to cover areas with unemployment of catastrophic proportions (mainly southern and south-eastern districts; interview ÚV SR, 2000; interview MVaRR SR, 2000, 2001). But there are serious doubts whether tiny agencies of 2-3 employees and limited budgets can possibly make a difference in crisis regions (interview ÚV SR, 2000). Meanwhile, pre-accession *regional* aid from EU was slow in coming. In part, this was related to the unresolved issue of the regional tier, to which we now turn.

Indeed, a lot was expected from the project of ***regionalisation*** of the country, not least because it was expected to create the institutional environment for the absorption of the Structural Funds at the regional level. Therefore, unsurprisingly, besides wider democratisation objectives, regionalisation was also seen as critical pillar of regional policy (cf. Baláž, 1995; Sirák, 1999, p.436). It was argued, that the creation of the regional tier would help to reverse rapidly growing regional disparities (interview M.E.S.A.10, 2000; Hamalová, 2001). However, what could have been a straightforward exercise, instead turned out to be yet another 'neuralgic' element of the 'vicious circle', where the interlocking of economic decline, fragmented regional development, and political, ethnic and social struggles fully manifested itself.

Indeed, while the Constitution stipulated the creation of the regional tier, it did not provide details of it. Thus, the form of regionalisation itself became an object of a political struggle. The project of regionalisation was initially initiated under the Mečiar administration of 1994-98, in which the country was to be divided into eight regions, each including an important urban centre (see Sokol, 1999). Eight regional capitals were expected to act as growth poles thus, it was claimed, creating conditions for balanced regional development. Interestingly, the plan also foresaw the expansion of the university system so that each of the eight regional capitals would have had its own university. Besides, each region would have its own instruments of regional policy (i.e. RDA) that would channel regional, state and EU resources. The regionalisation was expected to happen in two stages. The first stage, involving the creation of eight regional offices in respective regional capitals as an element of the decentralised state administration, was indeed realised in 1996 (Bitušíková, 2002; Silván and Zemko, 1996; Smith, 1998, 2000). However, the realisation of the second phase, involving the creation of eight elected regional assemblies, was halted amid growing concerns over the cost of the reform, political manipulation and gerrymandering. In particular, the Hungarian minority saw the reform as going strongly against its interests of establishing autonomy or any other form of territorial organisation along the southern border with Hungary. Indeed, the boundaries of the new regions were carefully designed in the North-South direction rather than East-West direction preventing the Hungarian minority from reaching a substantial share of population (and voting potential) in any one of them (Bitušíková, 2002, p.57-59; Smith, 1998, p.279, 2000; Surazska et al., 1997). Meanwhile, anti-Mečiar forces saw the reform as yet another attempt by HZDS and its allies to extend their grip on power in the country (Bitušíková, 2002, p.49; Surazska et al., 1997).

It is therefore not surprising that following the fall of the Mečiar administration in 1998, the question of regional reform was re-opened (Sokol, 1999). A new proposal was drafted for a radical re-organisation and decentralisation of public administration, involving the creation of *twelve* self-governing (mini-)regions with far-reaching competencies (interview M.E.S.A.10, 2000; Rajčák, 2001; Bitušíková, 2002). The authors of the proposal did not hide the fact that such regionalisation formed part of a wider project involving the dramatic reduction of the role of the central state (see more below) and devolution of power to the regions as a 'safeguard of democracy'. As suggested by one of the interviewees, 'within the highly decentralised state, the scope for the political influence of people like Mečiar will be confined to a small-scale regional level' (interview Slovak official, 2000). It comes as no surprise that the above proposal met stark resistance from the opposition parties of HZDS and SNS that saw them as a threat to the integrity of the state. In addition, the proposal also inflicted sharp divisions *within* the ruling coalition parties, each defending its own party interests and calculating their regional election potentials (interview Slovak official, 2001). The number and therefore size of the self-governing regions became hotly debated again, while time was running out[26]. Eventually, during the critical session of Parliament in July 2001, through a series of amendments supported by both opposition and some coalition deputies, the eventual product was a Law creating eight self-governing regions within the borders of already existing regional administrative boundaries. Such an unexpected outcome (that amounts to a close match with the original regional reform initiated under Mečiar) proved to act as an explosive among coalition partners, with Hungarian Coalition Party (SMK) openly threatening to leave government (Bitušíková, 2002, p.60; see also *Verejná správa* 2001a, 2001b). Despite this, the reform was eventually implemented and, fulfilled a nearly decade-old initial constitutional requirement, election to eight regional assemblies took place in autumn 2001. It is too early to say to what extent the emerging regional government in Slovakia will contribute to the goals that stood behind its conception. In particular, it remains to be seen, what impact it will have on the landscape of stark regional inequality. The process of its painful and contested emergence, nevertheless serves as a striking example of how the forces of 'vicious circle' interact and compound each other creating deadlocks and problems in realising much needed institutional change.

Towards a coherent development strategy?

The powerful interlocking of economic, political, cultural, social and regional aspects of the 'vicious circle' reviewed above could be said to have had devastating effects on Slovakia's progress towards a democratic and prosperous society. Part of the problem, as already pointed above, is that turbulent aspects of the 'vicious circle' provide a rather hostile framework for institutional development. Conversely, weak, unstable or simply missing institutions can be expected to have only limited (if any) impact on solving difficult socio-economic situations. Thus the institutional environment could be seen as a consequence and at the same time one of the causes of the 'transitional' problems. Indeed, the Slovak institutional environment during the 'transition' period could be characterised as unstable, turbulent, showing considerable weakness and frequent difficulty to establish itself let alone to design and implement coherent development strategies. This problem is apparent when looking at the area of

[26] If the reforms were not passed by parliament by the beginning of summer 2001, it would be impossible to implement it within the government's term of office (Bitušíková, 2002, p.59). Thus, one

economic policy broadly defined and highlighted when searching for specific strategies of transformation towards the 'knowledge economy' and institutions that would promote such transformation.

The struggle over economic policy

The area of economic policy is, of course, of crucial importance for a country aspiring to catch-up with its Western European neighbours. To this aim, for Slovakia, like for other CEECs, the question of long-term competitiveness is essential and requires strong, active policy measures (Myant, 1999a). However, as far as Slovakia is concerned, one has to acknowledge that the 1990s were years characterised by frequently changing priorities and the struggle over strategic direction (Morvay, 2000, p.17; Marenčín and Beblavý, 2000). Beblavý (2000), for instance, noticed that during the first decade of transformation, eight different 'industrial policies' were drafted in Slovakia. Several of them were not even officially approved by the government before being washed away by a new incoming administration. And it was not until the second half of the decade that the first policy measures were attempted to address the issue of innovation and technology development (Outrata, 1999, p.141). Therefore, within the environment of frequent government changes and bitter political struggles, the overall approach to economic restructuring could be at best described as 'piecemeal' (cf. Smith, 1998).

However, in retrospect, two competing dominant policy orientations could be detected in the muddy policy waters of post-socialist Slovakia. The first approach embodies the original 'transition' project that emphasised the 'shock therapy', quick privatisation and liberalisation, free market, opening to the international economy, foreign capital and rapid integration with Europe. The leading Slovak think-tank behind this approach is M.E.S.A 10, whose policy prescriptions strongly resonate with those of the international financial institutions (see M.E.S.A.10, 1998) and 'shock therapy' enthusiasts such as Sachs (1990). The second policy approach could be seen as an attempted alternative to neo-liberal 'transition' (cf. Ivanička, 1996, p.74) and the promotion of 'the Slovak road' of transformation (Mihalik, 1998). Indeed, it put

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of the important requirements for the EU accession negotiations would not have been met.

emphasis on the Slovak economic specifics, the need for more gradual transformation, the continuing importance of the state in the economy, national capital and a domestic entrepreneurial class while stressing the social dimension of transformation (see Mihalik, 1998, p.84-91). Economists of this persuasion mostly come from NEZES – the Independent Association of Economists of Slovakia (Haughton, 2001, p.749-750). The contours of the economy promoted by NEZES could amount to a sort of 'mixed economy', seemed to be favoured by the Slovak population in the early stages of transformation as an alternative to both state-socialist and free market economy (cf. Pavlínek, 1995, p.363; Mansfeldová, 1998, Table 7.7 on p.199). Ivanička (1996, p.74) goes as far as to place the approach of NEZES in the context of the competitive 'knowledge-oriented economy' discourses[27]. This is in stark contrast to the above neo-liberal framework of M.E.S.A.10 within which the competitiveness of the national economy is derived from the unhampered operation of the free market.

Clearly then, two divergent policy paradigms were present in the Slovak policy thinking, both leaving their imprints on policy making in 1990s. The two approaches also represented a very different understanding of the role of institutions in the economy. The search for an alternative to the neo-liberal 'transition' can be associated with the rule of HZDS, when NEZES-influenced economic policy was pre-dominant (Haughton, 2001). Indeed, during the 1994-98 period, the style of privatisation process was changed (cf. Mikloš, 1997) while several enterprises were labelled 'strategic' and excluded from privatisation (see Marenčín and Beblavý, 2000). The overall role of state in the industrial economy remained important (Smith, 1998). Following the macro-economic stabilisation, the government pursued, as we have already seen, expansionist economic policy by boosting public expenditure that was channelled to infrastructure and state institutional building. Both hardly fit overriding prescriptions given by the international financial organisations such as the IMF (cf. Jakoby et al., 2000, p.467) and one could speculate if this was an additional reason behind the frosty reception the Mečiar government faced in the West. In retrospect, however, the economic acceleration achieved during the 1995-98 period, could be seen as the biggest impact the Slovak institutions left on the economy in the last decade.

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27 Interestingly, Mihalik (1998, p.84-85) makes the claim that the 'Slovak road' is based on insights

The political defeat of Mečiar in 1998, however, opened a way back to the original neo-liberal economic project. This came under the banner of accomplishing the 'institutional environment' (Morvay, 2000), but in fact it meant the withdrawal of state and public institutions from the economy. Within this liberal 'neo-institutional' view, only institutions that contribute to the smooth operation of the (invisible hand) of the market system, and (more visible hand) of private capital are justified. Thus, the austerity packages and cuts in public expenditure were accompanied by deregulation and privatisation of the remaining state enterprises and banks (see Jakoby et al., 2000; Reptová and Strieborný, 2000). It remains to be seen how this change will impact on the Slovakia's long-term economic prospects. There are, however, immediate ramifications for the operation of the country's public institutions. Indeed, within the effort to 'roll-back' the state, a detailed Audit of public administration was carried out (ÚV SR, 2000) as part of the public administration reform with the intention of drastic cuts in the number of public institutions and their staff. The project of the regional reform as originally intended by the post-1998 government (see above) formed part of this bigger scheme. Indeed, with many competencies intended to be discarded or passed onto the regions, several central ministries were risking dissolution (interview M.E.S.A.10, 2000). As one official commented, 'it looks as if the state was to be cancelled' (interview MH SR, 2000). Amid this institutional tectonics the issue of the transformation of Slovakia towards a 'knowledge society' is grossly overshadowed but not completely forgotten.

Towards a 'knowledge economy'?

Indeed, a major study entitled 'Slovakia at the turn of the third millennium' by 19 authors was published in 1991 (Markuš et al., 1991). Summarising the findings of a comprehensive research programme of the Slovak Academy of Sciences on the 'Prognosis of the Scientific-Technological, Economic and Social Development of Slovakia', the study, as the authors modestly suggest, can be seen as a 'compass on the stormy sea' (ibid, p.150). A closer examination of the document reveals, that in fact it amounts to a long-term development strategy for an 'information society'.

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from institutional and evolutionary economics.

Indeed, one of the main messages delivered by the study was that Slovakia stood before a double challenge, that of transforming the bureaucratic command economy *and* overcoming the industrial logic of development (ibid, p.156) that characterised the post-war period. With reference to the latter, the authors call for the abandonment of 'deeply rooted structures, mechanisms and methods of the so-called extensive stage of industrial development' (ibid, p.165). This is because, as the authors believe, future economic growth

> '...will depend more and more on development of *services* generally, and on that of research, software and other informative activities, particularly ... Within the tertiary sphere and services, the development focus will unequivocally shift to activities of generating, storing and transferring *information...*' (ibid, p.166; emphasis added).

Slovakia at the turn of the millennium thus stands at a 'historical crossroad' (ibid, p.163) of changing 'the overall approach to social development, joined to a breakthrough in social structures and institutions' (ibid, p.163). If the country was to miss the new trend of *informatisation* and *intellectualisation* of production and would continue the industrial logic of development, it would risk 'fatal' lagging behind the most advanced countries (ibid, p.156). The authors thus urge that Slovakia adopts a bold approach towards new information-based development logic by promoting two main pillars:

> '*research*, (in order that [Slovakia has] a basic orientation on what is and will be going on in worldwide research, and meta-information on what data it might obtain from the worldwide research and how to join the stream of scientific-technological development), and an *information infrastructure*, i.e. a modern telecommunication network and various types of information services (in order that information data from worldwide – and also home – science, technology and commerce [can] be rapidly and reliably accessible)' (ibid, p.166; emphasis added).

Related to this, the authors suggest, there is a 'significant relative shift in the social division of labour from the primary and secondary, to the tertiary ... activities' (ibid, p.167). They conclude that the 'developmental logic' of Slovak society in future must focus on a 'modernisation of the sphere of research-developmental networks and activities, information infrastructure networks, and other infrastructure networks and activities [that] will permit a modernisation of the remaining elements of our national economy' (ibid, p.158; author's translation). A careful reading of the above suggestions reveals interesting similarities with the discourses of the 'knowledge economy' and 'learning regions'. Indeed, the authors of the study call for the abandonment of sectoral economic policy and a shift towards national and regional and local economic stimulation.

A similar type of thinking can be detected in the work of Ivanička (1996) who also provides the clearest statement on the 'knowledge economy'. Ivanička starts by acknowledging that that 'the possibilities of industrial development were already exhausted in European society, [that is now] entering a trajectory toward an all-civilisation, knowledge-oriented transformation, to a knowledge-oriented society' (Ivanička, 1996, p.74). Consequently, he goes on to suggest that if Slovakia was to become a successful economy, it has to master three transformations at the same time:

a) transformation 'from centrally controlled to socially and ecologically oriented market economy';
b) transformation 'from federal structures and institutions to those of an independent state entity and its new institutionalised organisation'; and
c) transformation 'from the era of modernism to an information society, or knowledge-oriented society...' (ibid, p.74-75).

He further argues that '[w]ithout a full appreciation of what a knowledge-based economy actually is, Slovakia cannot count on any long-term success or prosperity' (ibid, p.117).

An interesting feature of Ivanička's work is that he explicitly addresses the regional dimension of the 'knowledge economy' in Slovakia. In doing so, he singles out two urban regions of Slovakia – Bratislava, the capital city, and Banská Bystrica in Central Slovakia. The interest in Banská Bystrica stems in part from a long-term search on the part of Slovak planners for the missing 'strategically important core' (ibid, p.105) in Central Slovakia[28], whose existence is perceived as critical for the country's 'internal compactness' (ibid, p.63). Ivanička argues, however, that building such a core 'can only be secured by activities of a knowledge-oriented society, committed to an increased share of knowledge in the merchandise and services, a quick transfer of new technologies, availability of the recent know-how, an inventive and innovative approach, promotion of exports, all these leading to an increased added value and the national well-being of the citizens' (ibid, p.105).

As far as Slovakia's capital city is concerned, Ivanička asserts that Bratislava is 'the nation's leading center for innovation' and thus 'sharing an international responsibility for the creation and diffusion of innovation and successful passage of Slovakia to an information-oriented and knowledge-based society' (ibid, p.91). In this context, the fall of the 'Iron Curtain' and opening of the cross-border co-operation in what he calls Central European 'contact zone' comprising Bratislava and Vienna offers 'extraordinary opportunities' (ibid, p.99; see also Ivanička, 1995). We will turn our attention to this particular aspect of the developing 'knowledge economy' in Slovakia in the following section. The section will try to assess the ability or inability of the institutions involved to deliver such an ambitious programme for Slovakia's capital and to see if these emerging 'extraordinary opportunities' in the Slovak-Austrian cross-border co-operation were realised.

7.6 The search for an 'animateur'

This section thus focuses on the specialised economic development institutions that could/should have played a crucial role in encouraging, in Ivanička's words, the 'successful passage to a knowledge-based society'. In this area, however, the inconsistencies and weaknesses of Slovakia's turbulent institutional framework are probably the most visible. Indeed, the 1990s could at best be described as years of a *search* for an 'animateur'. No single agency or organisation was created that would promote in a coherent way, a long-term strategy of putting Slovakia onto the 'high

[28] Two main urban centres, Bratislava and Košice are situated in the extreme west and east of the country respectively.

road' of development. Instead, a plethora of organisations emerged, probably contributing to the country's 'institutional thickness', but usually acting in an uncoordinated manner. Furthermore, as demonstrated below several key agencies themselves experienced 'survival' problems.

At the core of the Slovak institutional framework for economic development support are central government bodies, the Ministry of Economy (MH SR) in particular. The Ministry, together with the Economic Department of the Government Office are the major institutions drafting economic policy documents (interview MH SR, 2000). The Ministry itself runs several programmes that are aimed at improving economic performance of Slovakia (interview MH SR, 2000). However, the possibility of a directly active industrial policy was recently severely curtailed by the adoption of a Law on State Aid, compatible with the requirements of the EU competition policy rules (interview MH SR, 2000). Therefore, in the longer-run, agencies operating mostly on the supply-side of the economy may become relatively more significant. Several organisations of this type emerged during the 1990s, each with a specific mission. The National Agency for Development of Small and Medium Enterprises (NARMSP) was created in 1993 to provide support for SME development (interview, NARMSP, 2000; Smith, 1997b, 1998). Funded with a substantial contribution from EU funds, NARMSP supported the creation of a network of Business Innovation Centres (BICs) and Regional Advisory and Information Centres (RPICs) across the country. The impact of these on local economies is judged to be positive (interview NARMSP, 2001), but probably limited in the larger scheme of economic change (Smith, 1997b, 1998). Furthermore, with the recent phasing-out of EU money coming precisely at the moment when simultaneous attempts to reduce public expenditure on the Slovak side are made, the prospects for the network are somewhat unclear[29] (interview NARMSP, 2001).

Alongside the institutional support for SMEs, a specific agency for attracting FDI – the Slovak National Agency for Foreign Investment and Development (SNAZIR) was created in 1991. However, with only 15 staff in 1998 (Outrata, 1999, p.139), SNAZIR does not seem to have made any significant improvement to Slovakia's poor record of FDI inflow. Furthermore, the organisation itself saw major institutional disruption, during an attempted merger into a new agency – the Slovak Agency for the Development of Investment and Trade (SARIO). Indeed, the realisation of the intention to combine FDI and the export promotion function was accompanied by disputes over the legal status and exact competencies of the new body, the composition of its shareholders and its management amid continuing staff shortages (cf. interviews SNAZIR/SARIO, 2000, 2001). Thus, despite a proclaimed emphasis on FDI by the post-1998 government, the institutional structure to handle it remains rather inadequate. A similar verdict can probably be made about the already mentioned intended *new* network of RDAs. One cannot help but get the impression that these 'micro-animateurs' could turn-out be local 'amateurs', with very minimal know-how, personnel and financial resources to tackle acute crises in their respective regions. The troubled Slovak 'institutional thickness', meanwhile, could be said to be complemented by various other organisations, including somewhat better organised chambers of commerce (interview SOPK, 2000) or an embryonic technology transfer centre SARC[30].

However, none of the above agencies seems to be addressing the need for long-term strategy making. Attempts to create an institutional base for it were nevertheless made. The fate of these institutions, however, reflects the turbulent conditions of the Slovak 'transition' period. In the early 1990s, the Centre for Strategic Studies (CSŠ) was established in response to the changed geo-political situation in Europe and in search of the role of Slovakia within it. The strategic role was intertwined with the regional analysis and CSŠ was thus laying the ground for the emerging Slovak regional policy. In 1995, however, CSŠ was dissolved and a new institution, the Office for the Development of the Society, Science and Technology (ÚSRSVT SR) was created. The main purpose of this institution was to 'learn ahead' and to provide the government with a strategy for the development of an *independent* Slovakia.

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[29] There was growing pressure to turn the BICs and RPICs into self-financing organisations, that would have to compete for funding, rather than getting automatic financial support from the state (interview NARMSP, 2001).

[30] SARC (Centre for Development, Science and Technology) was established in 1992 and was supposed to provide a 'connecting link' between science and R&D on the one hand, and industry on the

Besides, the Office was emerging as a principal body for regional policy making. The combination of these functions, together with a competence in managing the research potential of the country (Rosa, 1997; Zajac, 1997; ÚSRSVT SR, 1997a, 1997b, 1997c) gave ÚSRSVT SR a chance of becoming the Slovak equivalent of the famous Japanese MITI. However, among internal management problems, frequent personnel and organisation changes, lack of quality staff, accompanied by difficulties in establishing effective relations with other ministries and, critically, with the Slovak Academy of Sciences, the impact of ÚSRSVT SR remained ambiguous. In 1996, the organisation had nearly 160 staff (ÚSRSVT SR, 1997b, p.32), but there was a sense of frustration both within and outside ÚSRSVT SR about its usefulness. Nevertheless, the contours of policies to address the technological and innovation gap of the Slovak economy were slowly emerging (see Outrata, 1999, p.140-141; see also ÚSRSVT SR, 1997b, p.9-11).

However, it remains ironic and at the same time symptomatic for the Slovak institutional landscape, that shortly after ÚSRSVT SR started to disseminate its long-term development 'vision'[31] of Slovakia, the Office itself was dissolved following the 1998 elections[32]. Regional development functions were subsequently transferred to a new Ministry of Construction and Regional Development (MVaRR SR), but the overall 'strategic' functions were lost. Thus, following the failure of ÚSRSVT SR, it is not entirely clear, who is going to take-up the challenge of providing a vision, let alone systematic guidance and support, for the Slovakia's effort to reach the 'higher road' of development. The story of ÚSRSVT SR, meanwhile, demonstrates the *limited* ability of the Slovak institutional landscape to act in the direction of encouraging new technological and economic trajectories. This will be highlighted in the example of cross-border co-operation with Austria and the uneasy attempts to capitalise on the scientific-technological and economic potential of the Bratislava region, in which ÚSRSVT SR was directly involved.

other one. However, with only 11 staff and activities primarily focusing on international co-operation (see ÚSRSVT SR, 1997b, p.27-28) the effects on domestic technology transfer seem to be limited.

[31] The vision was strongly biased towards the use of 'domestic' resources, especially the 'intellectual potential' of Slovakia (see Bunčák et al., 1998).

[32] One interviewee and a former employee of ÚSRSVT SR said that the dissolution of the body was not surprising given that it was largely seen as an ideological centre of HZDS. According to him, the dissolution of ÚSRSVT SR was even welcome by the representatives of the European Commission (interview, former Slovak official, 2000).

Bratislava: 'Silicon Valley' of the East?[33]

The Bratislava region occupied a special place in the minds of Slovak policy makers. As already mentioned, the capital city, accommodating the bulk of the Slovakia's academic, research, scientific and innovation potential (mostly built after WWII), was expected to play a decisive role in the country's 'passage to the knowledge-based society' (Ivanička, 1996, p.91). There were hopes that the city and the surrounding region would become a part of the Central European 'Silicon Valley' (see *Trend*, 1995). The potential of Bratislava has been multiplied by its strategic geographical position. Located literally on the border with Austria, very close to Vienna, it offered an ideal opportunity for cross-border co-operation. Indeed, the Slovak-Austrian border region represented a locality better able than most to take advantage of the end of the Cold War and the dawn of West-East (re)integration (Sokol, 1999). The considerable potential for successful cross-border co-operation stemmed from four main elements.

Firstly, the Slovak-Austrian border region is unique in relation to the socio-economic potential it possesses. Unlike most regions on West-East borders, the end of the Iron Curtain, did not expose two neighbouring neglected peripheral areas. Quite to the contrary, and uniquely, here the border region is composed of two confident metropolitan areas - Vienna and Bratislava - both representing the cores of their respective national economies. These two cities (population 1.5 million and 0.5 million respectively) represent also the political, cultural and scientific heartlands of their respective countries. Additionally, Vienna and Bratislava (some 60 km or 40 miles from each other) are the closest capitals in Europe and probably in the World.

Secondly, the Vienna-Bratislava metropolitan region has an excellent geographical and geopolitical location. It constitutes a core of what can be called the Central European 'contact zone' (Ivanička, 1995, 1996), that comprises also the cities of Brno (Czech Republic) and Gyor (Hungary) (see ***Figure 7.2*** in Appendix). This macro-region has a strategic geo-political position - located within the geographical heart of

[33] This section heavily draws on the author's participant observation while working for the Slovak central authorities in the period between 1995-1998.

the emerging 'New Europe' - with good transportation links to both the Western and Eastern halves of the continent (see Beňuška, 1994; *Trend*, 1995).

Thirdly, due to the above unique circumstances, the Vienna-Bratislava region is believed to have enormous future development potential. Economic prospects for the region were highlighted by a number of analyses and studies. Most importantly, in 1993 the German economic institute EMPIRICA (Empirica Regional Monitor) undertook a study of 414 European regions and Bratislava was ranked first - as the best location for future investment in Europe (*Trend*, 1993; see also OECD, 1996d, p.76). Factors considered by the study included labour costs, productivity, quality of life, access to markets and R&D level. The Empirica suggested that Bratislava might become a future 'Silicon Valley' of the East. Interestingly, the Hungarian region of Gyor and the neighbouring Austrian region of Burgenland appeared among the top ten regions too. On this basis, the vision of a 'golden triangle' Vienna-Bratislava-Gyor generated much optimism (see *Trend* 1995; see also Gorzelak, 1996, p.127-128).

Fourthly, there was political will on both the Austrian and Slovak sides to develop successful co-operation. Historically, relations between the two nations were non-conflictual. Indeed, Vienna and Bratislava, once being part of the same Empire, have a long record of political, economic and cultural ties, interrupted only by four Cold War decades. In the new geopolitical situation following the collapse of state-socialism, interest on both sides of the border for mutual co-operation has arisen. Austria, realising its geographical location, is open to co-operation with its Eastern neighbours and is supportive in their effort to join the EU. For Slovakia, the 100 km border with Austria is the only border with the European Union and more broadly, with the advanced 'West' itself. Therefore, Austria is a strategic partner in Slovakia's effort to join the 'rich club'. Indeed, the way from Bratislava to Brussels, leads geographically, economically and politically through Vienna.

In short, the Slovak-Austrian border offered an ideal chance to change the former zone of military and ideological confrontation between two implacable blocks into a zone of thriving political, cultural, economic, scientific and technical co-operation between East and West, in the middle of the 'New Europe'. Slovak regional policy makers and planners were not blind to this chance and the development of the Vienna-Bratislava(-Gyor) 'co-operative region' was considered as a matter of strategic importance for the regional development of Slovakia (see Buček, 1992, p.9; Baláž, 1995, p.361; Beňuška, 1994, p.2-4; Sokol, 1995; Smith, 1998, p.280; OECD, 1996d, p.76; *Trend*, 1995, p.7; Tvrdoň, 1996, p.53;). However, given the financial constraints on the Slovak side, the practical capacity for such co-operation was limited. The real chance to develop a meaningful border of co-operation appeared only with Austria's accession to the EU in 1995, when the Slovak-Austrian border become eligible for the INTERREG / PHARE CBC funds.

Slovak-Austrian PHARE Cross-Border Co-operation Programme

Indeed, in 1995 the European Commission approved the budget of ECU 20 million for the Slovak-Austrian Cross-Border Co-operation Programme (CBC) for the period of five years (1995 to 1999). Fifty-six per cent of the total budget was designated to infrastructure measures, 19 % to economic development and tourism, 15 % to environmental measures and 10 % to small projects funds and the management of the programme. It was expected, that the money would be allocated through five consecutive annual Financial Memoranda, each amounting to ECU 4 million. The programme became the most important regional programme in the country (Sokol, 1999, p.6).

In 1995, the first such Financial Memorandum was designed - 4 MECU was aimed to support ten pilot projects (see ***Table 7.1***). Two projects were of critical importance for the realisation of the Slovak 'Silicon Valley' dream - a study of Science and Technology Park in Bratislava, and a study/project for the Special economic zone on the Slovak-Austrian border crossing Jarovce-Kittsee. It was expected that both studies would be followed by a quick realisation phase financed through subsequent Financial Memoranda, both attempting to capitalise on the development potential described above.

Indeed, the successful realisation of the programme would have been of great importance for Slovakia. Apart from bringing in badly needed financial resources for the above strategic projects and for the border region more generally, it also had an important bearing on political and institutional-building dimensions. Politically, the successful progress of such a programme would be an excellent signal of the country's commitment to join the European family. Institutionally, the programme implementation itself would be a great opportunity to gain experience in the management of an EU regional-type programme and to build a capacity able to take full advantage of EU funds that would be available to the country after its accession to the Union (Structural Funds, INTERREG programme, etc.).

However, in retrospect, various factors worked against the successful realisation of the first 1995 Financial Memorandum and the programme experienced several important delays. Thus, by May 1998, only about half the projects started the implementation procedures, while others were still in pre-tendering or tendering phases (PMU, 1998). By the end of 1998, Slovak authorities were experiencing difficulties in completing contractual obligations needed to access funds before the deadline expired on 31 December. Problems with the first Financial Memorandum delayed the realisation of a whole programme and concomitantly negatively affected all consequent budgets - there was no new money allocated in 1996 nor in 1997. The deadlock was finally overcome as late as 1998, when eventually the second Financial Memorandum (worth 5 MECU) was signed, some two years late, amid growing fears that the large part of the original 20 MECU budget would go unused. The delay, meanwhile, directly negatively affected the realisation of the 'Silicon Valley' dream in Bratislava. The reasons why the Slovak-Austrian PHARE CBC programme faced such problems thus deserve a closer scrutiny. It could be argued that a *series* of negative factors went against the successful implementation of the programme. Three main groups of factors can be safely identified.

Programme related factors

The first group of 'problem' factors is related to the programme itself. Simply put, the management of the programme was much more complicated than originally expected. The PHARE programme in general is a rather complex administrative and financial mechanism. There are strict procedures of planning, endorsing, contracting and spending money, supervising implementation and monitoring. Money goes through several cycles of approval by the EC before being allocated and eventually made ready for spending. Some procedures are quite complicated and time-consuming and delays in endorsement proved that not only authorities in the CEEC but also Brussels itself sometimes find their accurate and timely application difficult. PHARE *CBC* programme is a further complicated case. By definition, the programme is a multi-sectoral programme, involving both 'soft' (non-investment) projects and 'hard' (investment) projects. The programme requires the good co-ordination of the partners at a national level (ministries, local and regional authorities, associations and private sector) as well as excellent co-operation on the international level. Indeed, efficient co-operation with the relevant authorities in the partner EU country is required as a complementarity with the INTERREG II programme operating on the EU side of the border is sought.

From this perspective, the first Slovak CBC Programme was perhaps too ambitious in terms of both the number of projects involved and their variety. It included too many relatively small projects, most of them had to be further divided into sub-projects. Each project or sub-project had its 'own life' and its particular problems, each had to be treated individually and required the same amount of administrative and management work, regardless of its financial value. Needless to say, the programme consisted of a great variety of types of projects, and, of course, a great variety of procedures to follow too. In addition to this, the PHARE rules themselves kept changing. The European Commission in order to increase the 'effectiveness' of PHARE has been introducing new rules and guidelines. These were supposed to simplify and accelerate the implementation of all PHARE programmes. However, some of them did not take full account of the particularities of the CBC programme, while the sudden introduction of others in the course of implementing the programme often caused confusion and further complications.

Institutional (in)capacity

Clearly, the successfully managing of the programme was a challenging task and required a stable, effective, flexible and experienced operational force, with sound negotiation and co-ordination capacity. Instead, mirroring a general turmoil in the Slovak administration, the CBC programme experienced changes of responsible bodies, chaos in organisational arrangements and personnel exchanges combined with staffing problems. Much of the required functions were expected to be fulfilled by a Programme Management Unit (PMU) - the administrative, financial, programming and co-ordination core of the programme - that should have operated under the relevant ministry or governmental body. Unfortunately, the establishment of the PMU and the maintenance of its operability was problematic, owing to frequent institutional changes. Indeed, since 1995, the programme has been operating subsequently under three different government bodies. It was originally conceived under the auspices of the Centre for Strategic Studies (CSŠ), subsequently taken-up by the Office for the Strategy of Society, Science and Technology of the Slovak Republic (ÚSRSVT SR) and finally transferred under the responsibility of the Central PHARE Unit (CPU). More recently, attempts were undertaken to transfer the programme to the Ministry of Construction and Regional Development (interview MVaRR SR, 2001). These shifts of responsibility had rather disastrous consequences in terms of continuity of staff. None of the people that were originally dealing with the CBC programme at the Centre for Strategic Studies (CSŠ) were transferred to ÚSRSVT SR and basically new people had to start from scratch. The situation was very similar some four years later, when from ÚSRSVT SR only 2 people working for the programme were transferred to CPU[34]. The consequences were that, each time, there were new people dealing with the programme and - learning how to manage it.

After long delays, the Programme Management Unit (PMU) was eventually established within the ÚSRSVT SR in 1996. In the absence of the National Development Agency and strong regional authorities, the PMU had to rely on its own administrative capacity in the programming, negotiating and implementing of the programme. This capacity, however, was severely limited. Firstly, the PMU did not enjoy much-needed stability as it was subject to mismanagement and numerous changes of organisational structure of its home institution. During these organisational 'earthquakes', the responsibility lines were often ambiguous and co-ordination with other departments eroded, without talking about difficulties with co-ordination with external bodies, including Austrian partners. Further to this, there were often changes

[34] One junior officer and one technical assistant were transferred to CPU, none of them had worked within the CBC programme for more than 24 months.

in managerial posts of the PMU. Between 1996 and 1998, the CBC Programme had four different Programme Authorising Officers (most senior position of the programme) and three different Directors (second most senior position of the programme, charged with daily management of the programme). With only one exception, *all* the changes of Programme Authorising Officers, were accompanied by temporary, but critical, periods of non-replacement.

Finally, the PMU faced another crucial problem - staffing. The Slovak authorities found it difficult to attract both well qualified, experienced and linguistically skilled people to work for the Unit, in part due to the low salaries prevailing in the public sector. In May 1996, the PMU had only one person dealing full-time with the programme - the PMU Director. Although later that year, three new staff were recruited, all were fresh graduates aged under 25 without relevant experience. It was not until the end of 1997 that two full-time technical experts started to assist the PMU. In its peak in spring 1998, the PMU staff accounted for two technical experts, the PMU Director and three junior staff, including one secretary. The most recent institutional change arrived in March 1999, when the whole programme was transferred under the responsibility of Central PHARE Unit at the Office of Government and the PMU as such ceased to exist.

Political sensitivity

The picture of 'malaise' of the Slovak CBC would not be complete without considering the political aspect of the whole programme. Slovakia at that time, for the reasons discussed earlier in the Chapter, was omitted from the first wave of EU enlargement negotiations and this had multiple negative ramifications for the country, including CBC activities. Indeed, with Slovakia's vanishing prospects for early EU integration, the initial optimism regarding development of meaningful co-operation on Slovak-Austrian border had been disappearing, and nobody could blame Austria if it instead concentrated more on its 'first-wave' neighbours - Czech Republic, Hungary and Slovenia.

However, the more influential and more direct impact on *all* PHARE programmes in Slovakia came from Brussels. Clearly, the more political relations between Bratislava and Brussels were cooling down, the more the European Commission was inclined to 'freeze' PHARE financial channels. The misunderstandings that developed in high-level political EU-Slovakia relations were mirrored in the organisation of the PHARE programme in Slovakia. In 1996, a misconceived Slovak attempt to make the PHARE programme more 'effective' resulted in deadlock and disagreement with the Commission on the further direction of the whole Slovak PHARE programme. As a result, no new annual national PHARE budget was approved for the country by the European Commission that year. The situation persisted through 1997 when the EC made it clear, that if Slovakia did not fulfil the required political criteria, PHARE aid would be ended all together.

Parallel to this, there was mounting pressure from the European Commission to reorganise the Slovak PHARE programme by reducing the number of Programme Management Units (PMUs) (and possibly the number of programmes) in the country. The EC promoted the establishment of one Central PHARE Unit, the super-body that would financially administer all PHARE programmes of the country. In this context, the creation of the PMU for Cross-Border Co-operation and the establishment of the CBC as an independent financial programme went clearly 'against the flow'. In fact, few observers expected that, given the circumstances, the CBC PMU would survive. Eventually, the 'threat' materialised in March 1999 when, as mentioned earlier, the whole CBC programme was transferred under the responsibility of the Central PHARE Unit (interview GO SR, 1999).

Lessons and beyond

For Slovakia, some important lessons can be drawn from the experience with the PHARE CBC programme. Firstly, PHARE is not a miracle tool that can change things and solve problems immediately and easily. Rather, PHARE itself requires a great deal of attention and effort before any advantages can be taken. Moreover, the effort will not be successful until political and institutional pre-requisites are satisfied. The slow and painful launch of the PHARE CBC programme with Austria had several negative implications. The 'real impact' on the border region was so far very limited. The most important projects will have to wait still before being realised and it is unclear if they will meet the expectations attached to them. This is particularly true for the projects whose aspiration was to build the 'knowledge economy' in Bratislava. In terms of institutional building, the implementation of the programme was a painful exercise, however, with no clear institutional capital accumulated. Politically, the PHARE programme in Slovakia, especially in the 1994-1998 period, was often part of the problem than part of a solution, within the turbulent context of the 'vicious circle'.

However, there are also some positive signals. Most importantly, in 1996, the basis for a *trilateral* Austrian-Slovak-Hungarian Cross-Border Co-operation has been created. The programme was named *'Partnership 2000 - Vision and consensus for the 21st century'* and policy makers hope, that it will open 'new opportunities of co-operation' in the regional triangle Vienna-Bratislava-Gyor (ÚSRSVT SR, 1997a, p.2; PMU, 1997). Indeed, *Partnership 2000* was the only PHARE programme in Slovakia that received funding from the European Commission in 1996 and 1997. Within this programme, specific measures were proposed by the Slovak side to encourage the creation of a 'regional information society' in the border region, inspired by similar exercises in the EU. A move to promote a 'regional information society' within the trilateral programme, that could also be seen as an attempt by the Slovak policy makers to bypass the deadlock within the bilateral programme in advancing the idea of the 'knowledge economy'. The idea of the 'regional information society' was given the highest political support by the trilateral meeting of the Prime Ministers of Austria, Slovakia and Hungary respectively. However, it remains to be seen how premium political proclamations will be translated into concrete steps.

Indeed, any progress towards a Central European 'Silicon Valley' has to be measured against reality on the ground. Here, several contradictions have been emerging in the border region. On the one hand, the deepening of EU integration and the application of the *Schengen Agreements* made external EU borders (including the Slovak-Austrian one) less 'permeable', quite contrary to the spirit of the CBC programme. On the other hand, the late 1990s saw the further erosion of the academic and scientific base on which the regional 'knowledge economy' could be built in Bratislava[35]. An important part of the problem is a continuing process of 'brain-drain' the extent of which, however, is hard to estimate because such critical information is not collected by Slovak Statistics (interview ŠÚ SR, 2001). It could be safely said that Bratislava acts as a 'magnet' for skilled labour in Slovakia and therefore attracts 'brains' from within the national economy. At the same time, however, Bratislava experiences important leakages of a highly qualified labour force to neighbouring Austria (see Williams et al., 2001) and further afield. Despite this, Bratislava is doing relatively well in economic terms and is effectively the second richest region in Central and Eastern Europe after Prague (ES, 2000). However, rather that being the outcome of the institutional efforts described in this section, the economic position of Bratislava has probably more to do with the power of market forces and the effects of circular and cumulative causation. Indeed, the relative success of the capital city has to be placed in the context of growing domestic social and regional inequalities to which we now turn.

7.7 Social and spatial divides in Slovakia

The exploration of social and spatial divides in Slovakia has to start with re-emphasising the importance of pre-socialist and state-socialist historical legacies. Indeed, not only did Slovakia historically lag behind other industrial countries, it also displayed wide *internal* regional and social differences. In broad spatial terms, the western half of Slovakia was more industrialised, more urbanised and wealthier than the eastern half, reflecting an historical pattern of a wider continental divide (Sokol, 1999, p.5) and Slovakia's initial position at the periphery of industrial Europe. Indeed, the backward eastern parts of Slovakia historically suffered the most from poverty and emigration waves (see Ivanička, 1996, p.116). The imbalances between the east and the west were further exacerbated during the inter-war first Czecho-Slovak Republic, that favoured western Slovak regions closer to the Czech Lands, while the limited industrial base in eastern Slovakia was facing 'de-industrialisation' (Pavlínek, 1995;

[35] R&D expenditure in Slovakia further declined to 0.86 % of GDP in 1999 (Pišút and Kraus, 2000, p.640).

Selucký, 1991). The state-socialist regime after the Second World War, as pointed out earlier, was determined to overcome both social and spatial inequalities. Thus, besides attempting to equalise the economic position of Slovakia vis-à-vis the Czech Lands, there were also attempts to encourage economic development in lagging-behind corners of the country. Equality, however, was often achieved at the expense of efficiency. While Slovakia as a whole underwent massive 'forced industrialisation', the socialist planners targeted also its peripheral regions with a specific 'branch-plant' structure reflecting particular divisions of labour under state-socialism (Smith, 1998, 2000). Meanwhile, in social terms, Czecho-Slovakia displayed one of the most equal income distribution systems in Europe (cf. Cox and Mason, 1999). This pattern, however, came to an end in 1989.

Indeed, with the collapse of state-socialism and subsequent neo-liberal marketisation of the economy, regional and social divides have seen sharp increases. Independent Slovakia through its Constitution committed itself to the 'socially-oriented' market economy, though it is unable to halt the growing social inequality trend. Within the first years of transformation income inequality in Slovakia increased, measured by Gini coefficient, from 19.5 in 1989 to 22.5 in 1994 (Dunford and Smith, 1998, p.36) showing a propensity to rise further (see Garner and Terrell, 1998). This trend reflects the broader process of growing social polarisation in Slovakia and other 'transition' countries. On the one hand, political and entrepreneurial elites have been emerging (Williams and Baláž, 1999; see also Eyal et al., 1998), on the other hand, there is a growing army of disadvantaged and marginalised social groups, probably giving birth to a new social class structure (cf. Smith, 1998).

Alongside social differentiation, Slovakia has experienced spectacular *regional* fragmentation (Baláž, 1995; Buček, 1999; Finka, 2000; Gajdoš, 1997; Ivaničkova, 1996; OECD, 1996d; Rajčák, 1998; Smith, 1994, 1995, 1996, 1997a, 1998, 2000; Sirák, 1999; Sokol, 1999). This is most apparent in terms of the regional distribution of unemployment. Indeed, despite the economic recovery between 1994 and 1998 unemployment remained quite high and very unevenly distributed. In June 1998 when the national average unemployment rate was 13.5 %, joblessness remained relatively low in the capital city Bratislava whose five districts reported unemployment rates between 3.1 % to 4.7 %. At the same time, unemployment in most districts of the western half of Slovakia outside Bratislava reported rates between 7.2 % and 16.6 %. Meanwhile, the contours of the unemployment crisis were looming in the East and South-East of the country where the majority of districts reported joblessness ranging between 16.7 % and 27.9 % (ŠÚ SR, 1998a, p.35-36). The introduction of neo-liberal policy packages and the subsequent slowdown of the national economy in the post-1998 period has been associated with further dramatic exacerbation of the regional problem. By the end of 2000 when the national unemployment rate was approaching 18%, the figure remained as 'low' as 6.4% for the Bratislava region[36]. Meanwhile, joblessness in the worst hit districts of southern and south-east Slovakia jumped to an alarming 26% – 32% of their labour force (ŠÚ SR, 2001, p.40-41).

The geographical distribution of unemployment mirrored a deep fragmentation of the Slovak space-economy, reflecting the historical legacies of regional economies in question and the way they interact with the imperatives of the wider political economy. Bratislava, on the border with Austria, consolidated its position as an economic 'core' of Slovakia (Smith, 1998). The majority of industrial urban centres are clustered in the Western part of the country, forming together what could be called a 'centre' of the Slovak space-economy (cf. Ivanička, 1996, p.89). Thanks to their more diverse economic base, districts that are part of it, seem to perform better than their counterparts in the East and South-East of Slovakia. Indeed, more scarcely populated areas with traditional agricultural production or modernised/industrialised only recently under the state-socialism, appear to be clear losers of the 'transition' to the market (Smith, 1998; Smith, 2000). Thus, in the East, Prešov and Košice, the second largest industrial city of Slovakia, constitute the only two major 'islands of development' in an otherwise increasingly marginalised region. What (re)emerges then, is a clear West-East divide (see ***Figure 7.3***) that combines both urban-rural and core-periphery dimensions and fits into the broader east-west economic landscape of Central Europe (see ***Figure 7.2*** and ***Figure 4.2*** in Appendix).

This East-West disparity in Slovakia is further exacerbated by the economic weight of Bratislava, located on the very Western extreme of the country (Buček, 1999). The

[36] Five districts of Bratislava city plus districts of Malacky, Pezinok and Senec.

capital city produces 34% of the national value-added (ŠÚ SR, 1998b, p.13), accounts for more than 50% of the FDI inflow (Smith, 1998; Sirák, 1999) and accommodates the bulk of the country's expanding business and financial services (cf. ŠÚ SR, 1998b, p.9). The contrasting economic fortunes between Bratislava and the rest of the country are reflected in regional GDP levels. Measured at purchasing parity standards, GDP per capita of Bratislava reaches 99 % of the EU average making it the second wealthiest place in CEEC after Prague (EC, 2001). Meanwhile, the remaining Slovak NUTS II regions fall far below, with GDP levels ranging from 39 % to 44 % and contributing to the country's unimpressive average of 49 % in 1998 (ibid).

What we witness then, is the emergence of a highly fragmented picture of the Slovak space-economy under market conditions. And, despite the attempts of the Slovak policy makers reviewed earlier in the Chapter, the extent of the regional and social problem are showing a tendency to increase further. This reflects a highly uneven way people and regions are being integrated into the wider national and international divisions of labour and value chains (see also Smith et al., 2002). Exacerbation of the social and regional divides makes the fulfilment of the constitutional promise of being 'socially friendly' market economy and the requirement of the EU for socially and regionally balanced development an ever greater challenge. Indeed, a failure to address adequately regional disparities was one of the impediments to Slovakia's entry into negotiations for future accession to the EU (Smith, 1998, p.284). Ironically, with the further liberalisation of the economy that aimed at the acceleration of Slovak integration into the EU, the regional problem grew bigger. Thus regional and social polarisation seems to be just another important element of the 'vicious circle' of the country in 'transition'. With this concern in mind, we now approach the conclusions.

7.8 Conclusion

The case of Slovakia presented in this Chapter provides us with some valuable insights with regard to the processes of turbulent post-socialist socio-economic transformation and simultaneous attempts to emulate shift towards the 'knowledge economy' in CEEC. Empirical evidence mobilised through the Chapter allows us to formulate the following conclusions.

Firstly, the case of Slovakia strongly supports the view developed in earlier theoretical Chapters that institutions should be seen as being at the same time objects, subjects and outcomes of wider socio-economic struggles. Indeed, the emergence of an independent Slovak state can be seen as a 'product' of struggles that ensued in the former Czecho-Slovakia after the fall of state-socialism. The 'vicious circle' that emerged as a powerful interlocking of economic and social processes had to be resolved by dissolving the federation. Second, it could be argued that in 1993 Slovakia did free itself from the constraints of the federal 'nation-state' and gained full control over its economic policy and institutional landscape design. However, by becoming an 'independent' country, Slovakia did *not* free itself from its own historical legacies and a wider political economy. Indeed, after becoming a 'nation-state' on its own, Slovakia fully exposed itself to the power of the international political economy and imperatives of international divisions of labour and value chains. Slovak state institutions thus have to be seen as acting in the context of powerful 'external' forces. Moreover, thirdly, Slovakia's institutions themselves became part of the 'internal' socio-economic struggles. Instead of national 'coalition building', powerful interlocking of negative economic, political, social, ethnic and regional processes prevailed resulting in the 'vicious circle' tendencies in an independent Slovakia. Institutions are deeply implicated in such tendencies and thus could be seem as part of the problem.

The point emerging from this analysis is that turbulent socio-economic transformations create rather hostile environments for successful institutional building. Conversely, unstable, weak or incomplete institutional bases can be expected to provide only a limited impact on the economy and society. In this way, institutions are becoming a part of the problem.

This was demonstrated in the example of a slow and painful emergence of the regional tier in Slovakia and further highlighted in the case of specialised economic development institutions that could or should have assisted Slovakia in building a more competitive 'knowledge-intensive' economy. Indeed, the 1990s could be seen at best as years in the search for an 'animateur'. Efforts to create 'institutional thickness' were present, but given the turbulent political, economic and wider institutional environment, the outcomes (effects) are somewhat limited. ÚSRSVT SR was singled out as potentially a major 'animateur' but it failed to provide the needed institutional capacity and itself faced 'survival' problems. Consequently, this had negative implications for concrete measures that were aiming at capitalising on the academic and research-scientific potential of the capital city Bratislava and materialising the vision of the Central European 'Silicon Valley'. Bratislava, which was supposed to assist Slovakia's 'passage to a knowledge-based society' (Ivanička, 1996, p.91) meanwhile, emerged as the second wealthiest region in Central and Eastern Europe. However, rather than being the outcome of an institutional effort described in the Chapter, the relative success of Bratislava can be attributed more to the operation of market forces and the circular and cumulative causation process, and should be seen in the context of growing social and regional inequalities in Slovakia.

Ironically, market forces also contributed to the erosion of the R&D base on which long-term competitive 'knowledge economy' in Bratislava and Slovakia could have been built (cf. Myant, 1999a; Zajac, 1997). More recent attempts to secure competitiveness through further liberalisation, improved the country's political chances of joining the EU, but ironically, led to the further exacerbation of economic, political and social problems, highlighting one of the fundamental contradictions of the transformation process. Thus, in retrospect, the biggest direct impact Slovak institutions have made on the economic performance of Slovakia in the 1990s was a 'Keynes-inspired' growth between 1996-98 that, as demonstrated above, was not without problems.

At the turn of the millennium, Slovakia remains one of the most economically advanced countries of Central and Eastern Europe, but faces considerable challenges. With unemployment rising to 20% (one of the highest in Europe) it is no surprise that 'defensive restructuring' based on cheap labour becomes the norm for most Slovak regions (Smith, 2000, p.173). More broadly, it could be argued that stemming from the intersection of its historical legacies and imperatives of the wider political economy, Slovakia and its regions are progressively directly subjected to particular patterns of international divisions of labour and value chains (cf. Smith et al., 2002) increasingly dominated by West European capital. These processes firmly lock Slovakia and other CEECs into the emerging eastern 'super-periphery' of the 'New Europe'. Thus, in the face of powerful forces of the wider political economy and uneasy socio-economic legacies, the room for manoeuvre of Slovakia and its institutions in altering the country's economic fortunes is severely limited. This proposition brings us back to the larger discussion of the regional dimension of the emerging 'New Europe' to which we now return. The final Chapter will also provide a comparison between Slovakia and Scotland before formulating overall conclusions.

PART III

Chapter 8:

Conclusions

8.1 Introduction

This thesis has been concerned with the fall of state-socialism and the alleged rise of the 'knowledge economy', and the implications of these processes for regional change in the 'New Europe'. In particular, former industrial regions in both Eastern and Western Europe and the way they cope with the socio-economic transformations have been of prime interest. Particular attention has been given to their efforts to promote a transformation from the industrial economic paradigm to a 'post-industrial' or 'knowledge-intensive' one. In doing so, the thesis has engaged with concepts found more broadly in the social sciences, and in economic geography in particular, which suggest that the regions themselves are capable of mobilising their internal potential, to ensure economic prosperity by supporting learning, knowledge creation and innovation. In less-favoured regions, the regional development agency is often seen as a key institutional precondition to fulfil the function of an 'animateur' of economic change towards a 'learning region' where learning, knowledge and innovation are part of a 'virtuous circle' of economic success. Following a detailed theoretical examination of these concepts and a detailed empirical analysis of two case study regions, this Chapter aims to formulate overall conclusions.

Initially, section 8.2 will summarise the arguments emerging from the theoretical analysis. It will argue that the concept of the 'knowledge economy' and its regional dimension in the form of 'learning region' offer an appealing account of contemporary economic change; however, they also suffer from serious theoretical shortcomings. The need for an alternative analytical framework will thus be underlined and the contours of such an alternative will be briefly outlined. The focus will then turn to the empirical material mobilised in the thesis. Section 8.3 will summarise the findings from the two case studies, Scotland and Slovakia. It will point at the serious difficulties these two region-states – one in the Western European periphery, the other in the Eastern 'super-periphery' – face on their way to economic prosperity. The comparison will reveal striking similarities but also profound differences between Scotland and Slovakia and their attempts to promote the 'knowledge economy'. These findings consequently raise important policy questions for social and regional cohesion in an enlarging EU; these will be addressed in section 8.4 .

8.2 Regional dimensions of the 'knowledge economy'

The exploration of the regional dimensions of the 'knowledge economy' started in Chapter 2 by addressing the theoretical foundations of the 'knowledge economy'. It was argued that different or even conflicting accounts can be found in the literature on the subject, while different labels are used to capture the phenomenon, including 'post-industrial society', 'information society', 'learning economy' or 'new economy' (Bell, 1973; Castells, 1996; Drucker, 1993; Kelly, 1998; Leadbeater, 2000; Lundvall and Johnson, 1994; Webster, 1995; inter alia). Nevertheless, a broad consensus can be found among these concepts in terms of the centrality of knowledge in economic processes. Indeed, *knowledge* - in its various forms (tacit or explicit knowledge, formal or informal, knowledge embodied in technology, institutions, human/social capital, etc.) – is believed to have become the most important source of wealth creation. Consequently, it is claimed, the economy has become *knowledge*-driven, marking the emergence of the 'new era' with 'new rules'. For some observers this means that the contradictions and social conflicts of capitalism will be eased, if not replaced, by an emerging economic system based on networks of co-operation, trust and knowledge-sharing. These propositions are attractive, but have been subjected to critical scrutiny, from which an alternative view has emerged.

A critique of the 'knowledge economy' started by addressing two fundamental questions. First, 'are we really experiencing a transition to a knowledge-driven economy', and second, 'can an economy be *knowledge*-driven at all'? With regard to the latter, this thesis supports the view that there is no convincing evidence that (even the most advanced) economies have actually moved beyond the market economy. Therefore, it remains debatable whether contemporary economies can be seen as *knowledge*-driven. Rather it should be admitted that the market economy is, and always was, *profit*-driven. Within such an economy, the final goal is not knowledge but profit. In fact, the importance of the market imperative for profit is likely to increase with the advances of neo-liberal globalisation. This is not to say that knowledge does not play an important role; indeed, knowledge can be a part of a profit-seeking process (and probably always was). But it is neither the only nor necessarily the most important part of the process. Indeed, the crucial evidence of the *growing* importance of knowledge for economic development is still missing. Therefore, the notion that we are witnessing a transition towards a 'knowledge-driven' economy should be questioned.

Meanwhile, the frameworks for development that highlight knowledge as the main (if not the only) factor of economic growth need to be scrutinised. In fact, the very assumption that knowledge creates wealth (central to the 'knowledge economy' thesis) should be seen in a critical light. At best it is an oversimplification that does not take into account the influence of other factors (e.g. power). Moreover, it overlooks the possibility of a reversed causality (i.e. that wealth creates knowledge). Indeed, the cost of 'learning' or 'knowledge creation' is virtually ignored by the literature. Acknowledging the existence of the reversed causality, of course, means turning the logic of the 'knowledge economy' upside down. As the picture of a simple, one-directional relation between 'knowledge' and 'wealth' disintegrates, a more complex (but also more accurate) matrix emerges. This sees 'knowledge', 'wealth' and 'power' as being mutually linked through a web of complex, multidirectional, direct and indirect relations.

These criticisms open the way for an alternative conceptualisation of the current political economy. Building on parts of the 'radical' and 'institutional/evolutionary' approaches, this alternative starts by acknowledging that the economy should be conceptualised as an 'institutionalised social process'. As such, the economy is shaped by institutions that can simultaneously be seen as being objects, subjects and outcomes of struggles over knowledge, wealth and power[1]. This thesis supports the view that there are important continuities with the past in these struggles and that the current socio-economic transformations in the most advanced market economies are unfolding *within* the framework of a capitalist political economy. Consequently, the institutions of labour, state (local, regional, national, supranational) and capital (productive and financial), seem to have continuing salience in shaping socio-economic transformations where contradictions and conflict remain pertinent features. However, in what appears to be an increasingly neo-liberal *profit*-driven economy, it is global capital that is gaining momentum, supported by institutions of global economic governance (emerging as a category of institution of its own right). Indeed, global capital seems to play a pivotal role in shaping emerging global 'socio-spatial divisions of labour' accompanied by global 'socio-spatial value chains/networks' – two concepts proposed to capture the workings of the global political economy. Within such a political economy, the role of *knowledge* is indeed changing in that it is increasingly commodified. The commodification of knowledge in turn allows for the emergence of what could be seen as a 'knowledge-intensive sub-economy', but this has to be seen in conjunction with the growing socio-spatial division of labour within the overall *profit*-driven economy framework. Therefore, instead of a widespread knowledge-sharing process, what can be expected is a process of knowledge accumulation as part of a wider circular and cumulative causation mechanism, in which knowledge, power and wealth reinforce each other with significant social and spatial effects.

This situation places a question mark over the logic and the very existence of the '*knowledge*-driven economy', which has implications for economic geography concepts that see *knowledge* and *learning* as key explanatory factors of regional development (see Malecki, 2000, for a recent review). These concepts see regions as the basic organisational units of today's knowledge-intensive capitalism (Ohmae, 1993; Florida, 1995), which function as 'repositories and collectors' of knowledge, supported by regionally-based 'entrepreneurial cultures', 'untraded interdependencies' and 'institutional thickness' (Amin and Thrift, 1994; Saxenian, 1994; Storper, 1999). Such regions, we are told, are best described as 'learning

[1] Hence the use of terms such as 'socio-economy' or 'political economy' seems to be more appropriate.

regions' (Florida, 1995; Asheim, 1996; Morgan, 1997; Boekema *et al.*, 2000). Their learning capacity and ability to disseminate knowledge and innovation ensures their 'virtuous circle' of economic success. Less-favoured regions, meanwhile, are encouraged to emulate successful 'learning regions' by mimicking their 'institutional thickness'. Building regional 'animateurs' (Morgan, 1995, 1998) is considered as part of the process in which economic prosperity becomes a 'matter of choice' (Porter, 1998). Moreover, economic prosperity is expected to be shared by all within the given region. Such propositions certainly have their appeal, not least for former industrial regions, where they raise hopes for economic and social 'renewal'. However, the detailed analysis undertaken in Chapter 3 points to a much more complicated picture of the regional problem. Indeed, the possibility of the reversed wealth/knowledge causality sheds a suspicion on the validity of the above concepts. A fundamental question arises: are regions economically successful *because* they are knowledge-intensive, or are they knowledge-intensive thanks to the fact that they are economically successful?

An attempt to answer this question has to start with the acknowledgement of growing 'divisions of labour', accompanying 'value chains' (or 'value networks') and their spatial implications. Building on the conceptualisation of the current political economy presented earlier, this thesis supports the view that pockets of high-value knowledge-sub-economies can indeed be observed (seen by some as 'learning regions'). These, however, can only be found in the most-advanced countries, often within established economic 'hotspots'. Here, knowledge seems to function as yet another factor behind the circular and cumulative causation process. The striking feature of this process is that, with a handful of exceptions, it reinforces existing patterns of inequality. The effects of the 'circular and cumulative causation' process are well known (Myrdal, 1957). Extended to cover the circulation and accumulation of knowledge in the spatial context, this means that economically successful regions have resources to invest in quality education, training and costly research and development activities. The resulting innovations can be turned into profits and these re-invested back into the regional 'knowledge-base', attracting further investment and skilled workers and creating a possible 'virtuous circle' scenario. This can be accompanied by a build-up of their power base or political influence. Regional economic success potentially opens the way for a more socially cohesive pattern of development, although sharing regional prosperity is by no means automatic[2]. On the adverse side of the process, however, less-favoured regions (LFRs) can be trapped in a 'vicious circle', stripped of both investment and 'knowledge workers'. Their development trajectories are curbed by their own historical legacies ('soft' cultural, but also 'hard' structural), as well as the current wider political economy. Indeed, LFRs simultaneously face competition from other regions, while being affected by the power and mobility of global capital, the constraints of national, supra-national and global bodies, and the power(lessness) and (im)mobility of labour. As a combined effect of these forces, LFRs are being integrated into the wider political economy through particular 'socio-spatial divisions of labour' and 'value chains'. In addition to the economic subordination, LFRs may find their power influence being eroded.

It could be argued that such a conceptualisation is itself a simplification. It nevertheless raises the question of how much room for manoeuvre there remains for less-favoured regions to actively change their position within these 'divisions of labour' and 'value chains'. It is clear that regional actors do not necessarily sit idle vis-à-vis the economic challenges their respective regions face. However, the issue is how significant their actions are on the regional level, and what importance the role of specialised economic development agencies operating within regions has. Answers to these questions must begin by acknowledging that regions themselves are institutions and thus they are subjects, objects and outcomes of wider socio-economic struggles. This is also true for specific economic development institutions like regional development agencies, which are expected to act as 'animateurs' for their respective regional economies. Furthermore, the institutional power of these agencies has to be measured against the power of the wider political economy and the weight of the historical legacies of the regions in question. Thus, it could be argued that the room for manoeuvre of such regional institutions is limited. What is more, their efforts should be seen in the context of 'internal' regional 'divisions of labour', 'value chains/networks' and the accompanying social and spatial inequalities these produce *within* regions.

[2] Indeed, many economic leaders, be it regions or cities, display striking patterns of social inequality (Castells and Hall, 1994; Castells, 1996; Sassen, 2001; Allen et al., 1998; inter alia).

The constraints that regions are facing were highlighted in Chapter 4 during the examination of economic trajectories in the 'New Europe', with particular reference to its 'Eastern' half. The Chapter argued that the understanding of the fall of state-socialism in Eastern Europe and the subsequent 'transition to capitalism' is open to academic debate. A well-respected view suggests that state-socialism collapsed due to its inability to embrace the emerging 'knowledge economy', or as Castells (1996) calls it, the 'informational mode of development'. This proposition, however, has been assessed critically and put into the context of the knowledge-wealth-power triangle developed earlier. The thesis then moved on to explore the question of post-socialist transformation and uneven development in the 'New Europe'. It pointed to the fact that there are profound disagreements in the literature about the causes of the diverging economic fortunes of regions and countries in post-socialist Eastern Europe. Following a critical analysis of the neo-liberal approach and building in part on the strengths of 'institutional' and 'radical' approaches, the Chapter attempted to move in the direction of an alternative conceptualisation of uneven development in Central and Eastern Europe. This alternative is in broad agreement with the general conceptualisation developed earlier, while paying attention to the particular circumstances of countries in 'transition to capitalism'. The conceptualisation stresses the importance of historical legacies (both pre-socialist and state-socialist, 'soft' institutional as well as 'hard' structural) alongside the power of the wider international political economy (market forces and international organisations). It was argued that the combination of these historical legacies and the imperatives imposed by the international political economy creates powerful incentives and constraints for economic development in Central and Eastern European countries (CEECs). Part of the problem is the apparent paradox where the 'transition' to a market economy aimed at improving economic fortunes seems to have eroded the knowledge-base on which the long-term competitiveness of CEECs could have been built (cf. Myant, 1999a). The regions and countries of Eastern Europe are thus being integrated into the international political economy through particular socio-spatial divisions of labour and socio-spatial value chains, where value often flows in the East-West direction.

All these aspects are reflected in the growing fragmentation of the space-economy of the 'New Europe', which in turn reopens the issue over the extent to which the economic performance of individual regions or countries is a 'matter of their choice' vis-à-vis the wider political economy. What emerges from this line of inquiry is essentially a fundamental question about the relationship between *structure* and *agency*. Such relationships, the thesis suggests, are objects of social struggle and are therefore historically and locally contingent. To echo Massey (1995), contingent conditions can only be explored through empirical study of individual regions. Therefore, the theoretical discussion on the regional dimensions of the 'knowledge economy' was accompanied by a detailed empirical analysis of two regional cases, to which we now turn.

8.3 Evidence from Scotland and Slovakia (Comparison)

Reflecting the alternative conceptualisation outlined above, a framework for regional analysis was constructed first in Chapter 5. The main points of this analytical framework can be summarised as follows. First, regions cannot be treated in an ahistorical manner. Instead, regional processes should be seen and analysed as firmly rooted in historical struggles. Second, regions cannot be separated from the wider political economy context in which they operate, and regional analysis should fully reflect that. Third, the historical legacies and imperatives of the wider political economy are mirrored in the economic performance of regional economies, which should be seen in conjunction with their position within wider divisions of labour and value chains. Fourth, action at the regional level that aims at changing the position within divisions of labour and value chains requires due attention, but the power of regional institutions needs to be measured against the background of the historical legacies and imperatives of wider political economy. Finally, 'internal' struggles and socio-spatial divisions of labour within regions cannot be omitted from the analysis. Using such an analytical framework, two regional case studies of Scotland and Slovakia were undertaken. The remainder of this section will summarise their findings by comparing and contrasting the two cases.

It is believed that Scotland and Slovakia offer excellent material for such analysis. It could be said that the two regions display important similarities as well as fundamental differences. The most obvious difference relates to their respective levels of economic development. GDP per capita figures (measured at PPS) reveal a considerable economic gap, with Scotland reaching nearly 100% of the EU average, while Slovakia ranks below 50%. The difference measured at the current exchange rates would be even bigger. Beyond this crude macro-economic indicator, there are further important socio-economic dissimilarities. Scotland forms a part of the established market economy, and is part of the European Union and the European Single Market. Meanwhile, Slovakia is experiencing a turbulent 'transition' from state-socialism to market capitalism and its simultaneous attempts to join the EU. One of the outcomes of the turbulent transformation, was the recent emergence of Slovakia as an independent nation. This constitutes a further difference in that Scotland, for the time being, remains a region firmly anchored within a wider 'nation-state'. At the same time, this latter area offers some commonalties nevertheless. Indeed, both Slovakia and Scotland were for the long period of their history 'stateless nations' incorporated within larger 'nation-states', but both recently experienced a process of nation-building accompanied by an important institutional build-up. As a result, it could be argued, they both recently emerged as 'regional states' with varying degrees of autonomy, but both with a significant 'institutional thickness'. In addition, these two small nations (of similar population size) had important industrial pasts and both are attempting to move towards 'post-industrial' or 'knowledge economy' futures. For these and other reasons outlined in Chapter 5, a comparison between Scotland and Slovakia remains invaluable and can offer some important insights into the regional processes studied. Based on the material gathered in Chapters 6 and 7, a step-by-step comparison of individual analytical areas (historical legacies, wider political economy, economic performance, institutional responses, the role of an 'animateur' and intra-regional socio-spatial divides) will be now undertaken before formulating overall conclusions.

Historical legacies

History is one of the areas of comparison where interesting similarities between Scotland and Slovakia emerge, including the already mentioned industrial past and a shared history as 'stateless nations'. Indeed, both the Scots and the Slovaks see themselves culturally as *nations* and this is remarkable given the fact that they were both dominated by bigger nations and absorbed into larger 'nation states' for much of their history. However, a closer examination also reveals fundamental differences between the two cases that are often hidden in the 'detail'.

The first important difference between Scotland and Slovakia lies in their position and engagement within their respective 'nation states'. Scotland appears to be more fortunate in this respect. Indeed, although the 1707 'marriage of convenience' with England was probably not welcome, it nevertheless gave the Scots the recognition of being a (junior) partner with England in Great Britain, a position they continue to enjoy. Thus, despite the fact that the relationship with the English may have not been easy, it allowed the Scots to exercise a limited influence over British affairs, while keeping several elements of their own autonomy intact. These surviving elements of Scottish autonomy kept the Scottish identity alive through the centuries and helped to lay the foundations for the autonomy of modern Scotland, eventually culminating in devolution in 1999. Slovakia, in contrast, lost its autonomy much earlier and went through a much tougher and more turbulent historical period. It first completely disappeared from the map of Europe after being absorbed into Hungary. The Slovaks had to fight for their 'survival' for 1000 years while any attempts to establish autonomy were actively suppressed. Only by a 'miracle of endurance', the nation survived. It was then given a lifeline through the 1918 'marriage of convenience' with the Czechs. The 'marriage' was uneasy, but the struggle for Slovak autonomy continued, eventually resulting in a 'velvet divorce' in 1992. Throughout history, then, in comparison to Scotland, Slovakia's opportunities to influence its own destiny were much more limited.

The second important difference is hidden behind the industrial past of the two cases. Indeed, in terms of economic legacies Slovakia was again much less fortunate and spent much of its history as a backward agrarian region on the periphery of industrial Europe. Limited industrialisation in the 19th century changed little. By contrast Scotland was very much in the economic heart of the industrial Europe. It was part of the British 'workshop of the world' and in the 19th century was one of the important industrial 'hubs' of the world economy. Among the factors that helped Scotland to achieve such a privileged position were large deposits of coal and iron ore, as well as the possibilities that arose for Scotland through the expansion of the British Empire. None of these factors were present in Slovakia, where a major development boost came only with industrialisation after the Second World War. Meanwhile, Scottish economic trajectories in the 20th century were marked by the gradual erosion of the country's competitive position culminating in the crisis of the 1970s, after which the position of Scotland within the international divisions of labour changed dramatically. Slovakia was not spared dramatic socio-economic change either. Following the collapse of state-socialism the Slovak industrial structure was eventually also tested. Built under the particular conditions of a centrally planned economy, it now constitutes an uneasy legacy for the country's post-socialist development.

One way or another, for both Scotland and Slovakia their respective historical legacies (political, cultural, economic) represent an important element of understanding their current development trajectories, which cannot be omitted from the analysis. Indeed, these legacies are heavily reflected in the current position of the two nations vis-à-vis the wider political economy to which we now turn.

Wider political economy

For Scotland, the United Kingdom remains the most important element of the wider political economy. Indeed, even after devolution, the UK provides the overall economic and policy framework in which Scotland operates. Thus in many ways, the fate of Scotland depends on the fate of its relations with the UK. The link with the UK is vital and could be said to provide powerful constraints for Scotland. However, thanks to a particular combination of historical legacies and more recent arrangements, it seems that Scotland also benefits from significant incentives and enjoys in a way a privileged position. Importantly, this is reflected in the favourable fiscal arrangements (including the controversial Barnett formula) that appear very generous, especially when compared with other less favoured regions in the UK. In part, the Scots achieved this position through their active engagement in the relationship with the wider nation state, in which the (real or exaggerated) 'threat' of Scottish independence played its role.

For Slovakia, the 'threat' of independence also played a role. However, the Slovak situation is different in that once the Czech political elite was ready to sacrifice the common state, Slovak nationalists 'lost their bargaining chips'. By exiting the federation, Slovakia 'liberated' itself from both federal constraints and incentives. However, the country did not free itself either from its historical legacies or from the constraints of the wider international political economy. Indeed, the European and global political economy is now a major element of Slovakia's wider environment. While the UK to a large extent mediates the Scottish position within the international political economy, Slovakia is fully exposed to its imperatives, and has to 'negotiate' its position directly. In many ways, this proved to be difficult. The intertwined powers of international organisations (including the EU) and market forces (foreign direct investment, trade, financial capital) acted as powerful constraints on Slovakia's development and contributed to the reworking of the socio-spatial divisions of labour and value chains through which Slovakia is subjected to international flows of value. This in turn is reflected in the country's economic performance.

Economic performance

Indeed, the recent economic performance of Slovakia can be characterised as problematic, reflecting the dramatic socio-economic change the country has been going through. Initially, Slovakia experienced a deep 'transitional recession' in the early 1990s reflecting the disintegration of the state-socialist industrial economy. Subsequently, the country surprised by a period of dynamic growth, giving some grounds for the claims of a 'Slovak economic miracle'. Behind this 'miracle', however, was a strong domestic (government) consumption that created its own problems. The economic imbalance was growing (trade balance, indebtedness) and unemployment remained high. Subsequent attempts to fully liberalise the economy had further immediate negative effects, including unemployment, which reached historic highs of 20 % in 2001. After a decade of painful transformation, Slovakia surpassed its 1989 economic level, but catching-up with Western Europe remains a challenge. Indeed, the Slovak GDP per capita figure remains below 50 % of the EU average and under current conditions a quick improvement seems unlikely. Foreign capital now controls key sectors of the economy; however, the overall volume and impact of FDI on Slovak economic fortunes remains limited. The role of EU pre-accession programmes meanwhile seems to be small. Amid the turbulent transformation, the Slovak economy did experience a process of 'tertiarisation', but this was not accompanied by an overall increase in value-added knowledge-intensive production. Instead, 'defensive restructuring' on the basis of cheap labour has become the norm. Slovakia is thus firmly entrenched in the 'super-periphery' of the 'New Europe'.

It could be argued that some parallels may be found when comparing the Slovak situation with the Scottish one. The Scottish economy experienced an even more dramatic 'tertiarisation', while several of its key sectors could be said to compete on the basis of factor costs. However, owing in part to different historical legacies and different engagement with the current political economy, the overall economic performance of Scotland is entirely different. Initially, the economic crisis of the 1970s marked the end of Scottish industrial superiority, and subsequent 'de-industrialisation' was accompanied by high unemployment. However, after the late 1980s Scotland saw a recovery with a remarkable acceleration of growth in the 1990s. The factors behind this recent growth were entirely different to those found in Slovakia. In Scotland, expanding business and financial services were an important element of the recovery, while a significant boost came from inward investment. Importantly, much of the foreign investment was concentrated in 'new economy' (manufacturing) sectors contributing to the surge of the 'Silicon Glen'. An additional contribution to the economic performance of Scotland was provided by the North Sea oil industry. Continuing relatively favourable public expenditure levels and the effects of EU structural funds should not be discounted either. In addition, Scottish economic performance has to be seen in conjunction with the overall positive growth of the UK economy. Simultaneously, in further contrast to Slovakia, economic growth in Scotland was accompanied by a major reduction in joblessness. Indeed, unemployment was reduced to an unprecedented low of around 6% in 2001. With its GDP per capita at close parity with the EU average, Scotland is probably one of the best performing LFRs in the European 'periphery'. However, high structural dependence on FDI and external markets makes Scottish fortunes vulnerable to global economic volatility. In this respect, attempts to move the Scottish economy up the value chain is of critical importance. Slovakia faces a similar challenge, although probably of much bigger proportions. The question is to what extent Scottish or Slovak institutions can make a difference to their respective regional economies.

Institutional responses

A comparison of the institutional responses of Scotland and Slovakia reveal further interesting similarities but also important differences. These are related to both general institution building and the operation of specialised economic development agencies. In both cases, it is useful to remember that regions themselves and their institutions are at the same time subjects, objects and outcomes of wider socio-economic struggles. To take the example of general institutional building first, both regions displayed a similar propensity to push towards greater autonomy within their larger 'nation states'. In part, this process can be seen as a response to economic difficulties experienced and the perception of a 'threat to a nation' more generally. The realisation of this autonomy, however, occurred under different historical circumstances.

Slovakia, as demonstrated in Chapter 7, has a long record of rather unsuccessful attempts to establish its autonomy. More recently, however, Slovak nationalism thrived in the early 1990s on the political turbulence and economic stress wrought by the collapse of state-socialism and the subsequent neo-liberal 'transition'. The latter was seen as an immediate threat to the economic, political and cultural survival of the nation and the push towards more solid autonomy was seen as an answer. The fact that Slovakia eventually achieved independence, however, could be attributed to both the Slovak 'push' and the Czech 'pull' factors, in a complicated 'vicious circle' situation. Importantly, the Slovak nation and polity did not stand united behind the step toward independence. This in turn contributed to 'vicious circle' tendencies in post-independence Slovakia, in which economic difficulties, political polarisation, ethnic and social tensions and regional fragmentation are omnipresent. As argued in Chapter 7, this created a rather hostile environment for institution building and the conceiving of coherent development strategies. The resulting institutional instability and 'piecemeal' policy approaches seem to further aggravate the pain of transformation. In retrospect, the biggest impact Slovak institutions left on the economy were associated with a Keynes-inspired demand-side macro-economic manoeuvre in the mid-1990s. The subsequent return to a neo-liberal project brought a very different understanding of the role of the state and its institutions.

The situation in Scotland was in many respects both similar and different. Scotland, as Slovakia, also displayed a long-term tendency towards autonomy. The recent strong drive for autonomy can be seen in the context of, or as a response to, perceived major economic and political threats associated with the imposition of a neo-liberal economic order since the 1970s. This is not dissimilar to the Slovak response described above. However, unlike Slovak independence, Scottish devolution eventually materialised within conditions of relative economic prosperity. The Scottish case is also different in another respect. In contrast to Slovak institutional 'jumps' and the 'bumpy' road to autonomy, the Scottish institutional landscape seemed to build up rather gradually. Indeed, 'political' devolution followed decades of incremental 'administrative devolution'. Consequently, Scottish institutions seem to enjoy more stability and continuity, needed for longer-term projects. This is in contrast to Slovakia, where the discontinuity and instability of the institutional environment is often found, in turn affecting the institutional capacity and efficiency to act in the interest of the country.

This is not to say that Scottish institutions were exempt from socio-economic struggles. The evidence presented in Chapter 6 proves that they were very much at the centre of these struggles. In addition, some difficult dilemmas and struggles may lie ahead. However, importantly, Scottish institutions have seemed strong enough to pursue a rather successful strategy of defending Scottish interests vis-à-vis the British state. Indeed, getting the 'best possible deal for Scotland' appears to pervade the entire Scottish agenda. A striking example of such a 'deal' is the aforementioned generous funding arrangement that the Barnett formula seems to perpetuate. This could be seen as part of a much broader 'refined imbalance' that Scotland enjoys within the UK. In retrospect, the long-term lobbying power Scottish institutions exercised within the UK is probably their biggest contribution to economic development in Scotland.

For such an outcome, however, a united front is needed, where national actors pull in the same directions. This area constitutes a further difference between Scotland and Slovakia, probably best illustrated by the example of the recent achievement of political autonomy and independence respectively. Indeed, Scottish political autonomy would be unthinkable without the spectacular 'coalition-building' among major actors in Scotland who unite behind the project perceived as being in the common national interest. In contrast, such 'national consensus' was largely missing in Slovakia. Instead, a deep split over the critical issue of independence occurred in Slovak society and polity and this was further recycled in policy struggles in the post-independence period and hampered the formulation of the Slovak 'national interest'. This has direct implications for the overall institutional and policy framework. The different institutional dynamics of Scotland and Slovakia can be highlighted by the example of specialised economic development agencies, which will now be compared in turn.

The role of an animateur

Indeed, the situation with regard to *animateurs* displays striking differences between Scotland and Slovakia. However, before examining these in more detail, it is important to notice interesting similarities in terms of strategy discourse and concrete suggestions for regional action. Indeed, both Scotland and Slovakia displayed explicit strategy orientation towards the 'knowledge economy'. In addition, in both cases, concrete local projects for promoting the 'knowledge economy' were found. Coming under the form of a designated campus or park, these projects can be seen as attempts to support a nascent 'knowledge economy' in particular regional contexts. Thus Scotland went ahead with its Alba Campus project, situated between Edinburgh and Glasgow, at the heart of the 'Silicon Glen'. The project is a showcase initiative within a broader 'cluster' approach and is seen as a part of the 'Smart Scotland' strategy. In Slovakia, the creation of a Science and Technology Park in Bratislava was proposed as a means of materialising the Central European 'Silicon Valley' and fitting in a broader vision of transforming Slovakia into a 'knowledge society'.

However, a more detailed analysis reveals significant differences in terms of building consensus around these strategies and implementing relevant projects. In relation to the former, it could be said that proposals related to the 'knowledge economy' in Slovakia were rather isolated and had only limited and/or short-term impact on policy formulation. Amid fundamental policy and political struggles and overall socio-economic turbulence, the understanding of the 'knowledge economy' remains limited, its importance underestimated and its promotion neglected. Meanwhile, in Scotland the 'knowledge economy' discourse was fully embraced within the mainstream economic strategy, and could be seen as being part of a longer-term policy-thinking development. There appears to be a broad consensus across the Scottish institutional landscape about the need to develop a competitive 'knowledge-based' Scotland (although differences should not be overlooked).

Stemming from these differences, the implementation of 'knowledge economy' projects in Scotland and Slovakia was very different. It could be argued that the presence of a strong *animateur* in one case, and the lack of it in the other, played an important role. As seen in Chapter 7, Slovakia faced serious difficulties in materialising the vision of the Central European 'Silicon Valley'. In part, these difficulties have to be seen in the context of wider socio-economic struggles and 'vicious circle' tendencies, to which economic problems, political turbulence and institutional instability were contributing factors. In Scotland, in contrast, the Alba Centre was successfully launched, potentially creating a base for a 'virtuous circle' between 'education, innovation and enterprise' within a narrow but important 'new economy' sector. Apart from several other favourable factors, this was made possible thanks to dedicated time, human and financial resources and the concerted efforts of Scottish Enterprise. This well-resourced and well-organised development agency was able to bring together leading Scottish universities and various other Scottish partners, to attract foreign investors and to deliver a prestigious development site.

More broadly, Scottish Enterprise could probably be seen as the *animateur* for the Scottish economy. Besides its generous budget[3], the particular strength of Scottish Enterprise comes from the integration of all major economic development functions covering areas from skills and training, to SMEs and support for indigenous companies, to property management, FDI attraction and export promotion. Such a body, on the other hand, was lacking in Slovakia. Instead of a strong national *animateur*, several bodies were emerging, each covering a particular function with no apparent co-ordination mechanism between them. Moreover, the agencies themselves displayed 'survival' problems amid overall institutional instability, lack of resources

[3] The adjective 'generous' is of course a relative term when considering budgets, but in comparison to other RDAs in Britain, let alone to those emerging in Slovakia, Scottish Enterprise is doing very well.

and know-how. Instead of being the local *animateurs*, mini-RDAs emerging in crisis regions, for instance, risk being labelled 'amateurs', while the plans for the establishment of the strong National Development Agency never materialised. In the meantime, the knowledge-base around which the Slovak contribution to the envisaged 'Silicon Valley' in Central Europe could have been built was largely eroded by neo-liberal 'transition', furthering the sense of a 'vicious circle'.

In this context, the Scottish Alba project stands-out as a marked success. However, the progress of the Scottish Enterprise in transforming Scotland into a world-class competitive 'knowledge economy' will have to be measured against the power of the global political economy. It is too early to say what impact a prime-site development like the Alba Centre will make to the Scottish economic performance in the longer term and to what extent it will contribute to the process of improving the position of Scotland within global socio-spatial divisions of labour and flows of value. Ultimately, the question is to what extent a project like this will improve living standards for people in Scotland. This question cannot be separated from the context of 'internal' socio-spatial divisions of labour and accompanying inequalities *within* the given region.

Socio-spatial divides

Intra-regional disparities, both social and spatial, constitute the final area of comparison. Here, one can find interesting parallels between Scotland and Slovakia. Indeed, both countries experienced a reduction in socio-spatial differences in the aftermath of the Second World War, while the end of the century was in both cases associated with growing social and spatial inequalities. The factors behind this pattern are broadly similar. In the post-war period, both Scotland and Slovakia benefited from the redistribution policies of their respective 'nation-states'. Scotland saw the fruits of the generous Keynesian redistribution within the UK 'welfare state' (further enhanced by the bargaining power of successive Scottish Secretaries), while Slovakia received massive fiscal transfers from the Czech Lands as part of the state-socialist planning deal. These policies had both social and spatial effects. The post-war period saw

In part this reflects the relative strength of the Scottish block grant from which the agency is mainly funded.

Scotland and Slovakia converging quickly with their economically stronger partners. In Slovakia an additional effort aimed to reduce intra-regional disparities. At the same time, greater social coherence was actively encouraged in both countries. In the post-war UK, this was in part due to the relatively strong bargaining position the working class enjoyed. In the former Czecho-Slovakia, the state-socialist experiment was attempting to achieve a classless society. However, in both Scotland and Slovakia, the trends toward greater social and spatial coherence came to an abrupt end after the corrective intervention of the state was dramatically reduced. In Scotland, the gap between the rich and the poor has been growing and intra-regional disparities seem to be on the increase since the collapse of the 'post-war compromise' and the introduction of the 'free market revolution' in late 1970s. In Slovakia, the collapse of state-socialism in the late 1980s and the subsequent neo-liberal marketisation had similar effects. The decade of the 1990s was associated with a growing social divide amid emerging new class relations and a sharp increase in Slovak intra-regional disparities.

A more detailed observation of the recent regional disparity patterns within Scotland and Slovakia highlights further interesting similarities. In both cases, capital city-regions and major urban areas account for much of the economic weight while sparsely populated and remote areas face increasing marginalisation[4]. This corroborates the view that the alleged arrival of the 'knowledge economy' era seems to exacerbate rather then mitigate existing patterns of uneven development. Cities continuously act as 'engines' of growth and their strong performance proves that the process of circular and cumulative causation remains a salient feature of economic geography. Indeed, both Edinburgh and Bratislava could be seen as 'magnets' within their respective national economies where both investment and knowledge workers tend to gravitate, leaving peripheral areas without both investment and human capital. This trend is exacerbated further by 'external' market forces, most notably FDI, which appears to favour the most vibrant economic spots. At the same time, Edinburgh and Bratislava are probably part of wider circular and cumulative causation processes and 'value chains' through which both can be 'brain-drained' and 'capital-drained' to

[4] Exceptions to the rule are peripheral areas of Scotland benefiting from the oil industry, somewhat undermining the claims that natural endowments in the 'knowledge-driven economy' do not matter anymore.

more dominant centres of the national/international political economy. Despite this, there is little doubt that both cities enjoy considerable prosperity. They function as ICT hubs, accommodate knowledge-rich activities and could be seen as the 'learning' or 'knowledge-intensive cities' of their national economies.

However, even these economic 'hotspots' are not spared of contradictions and problems. Importantly, their prosperity is clearly *not* shared by everybody and due to their social divide they can also be seen as 'dual cities'. This echoes views in which cities are engines of progress and at the same time breeding grounds of social injustice, inequality and poverty. This also highlights the relativity of 'prosperity' and a complex the pattern of inequality that may lie behind it. Meanwhile, socio-spatial divides in both Scotland and Slovakia suggest that neither of the two region-states resembles a caring, socially and spatially harmonious society posited by various 'knowledge economy' enthusiasts. In fact, the problems are growing bigger despite explicit commitments and efforts in both Scotland and Slovakia to deliver social and economic well-being for all their citizens. This in turn leads us back to the fundamental issue about the ability of regions to deliver both prosperity and equality. On the basis of the available evidence, the lessons from Scotland and Slovakia on this issue can be summarised as follows.

What lessons can be learnt from Scotland and Slovakia?

A comparison between Scotland and Slovakia revealed many interesting similarities as well as profound differences, in terms of their historical legacies, engagement with the wider political economy, economic performance, institutional responses and socio-spatial divides. Perhaps the most remarkable feature found in both Scotland and Slovakia is the mobilisation of their identity as a nation, their persistent drive towards autonomy or self-government and accompanying significant institutional build-up. Despite this, however, the message transpiring from the above analysis of the two regional states is that regional economic prosperity is hardly a 'matter of choice' and that regional 'institutional thickness' cannot be simply equated with economic success (cf. Amin and Thrift, 1994b, p.17).

Indeed, the emergence of regions and regional institutions is in itself a contested matter, open to negotiation and socio-economic struggles (both 'internal' and 'external'). The cases of Scotland and Slovakia demonstrate this point rather well. It may well be that amid these struggles, some regions manage to 'negotiate' a better deal or to develop more powerful institutions than other regions (in this sense the differences between Scotland and Slovakia are instrumental). Ultimately, however, the power of regional institutions has to be measured against the power of the wider political economy and historical legacies. Indeed, the economic performance of both Scotland and Slovakia show just how much history and wider socio-economic environment matter. The combination and interplay of the two factors heavily impact on the position of the two regional economies within broader socio-spatial divisions of labour. These divisions of labour in turn determine places of regions within accompanying inter-regional and international flows of value and ultimately account for much of their prosperity. The example of Slovakia shows that even a region or a small nation achieving formal political independence cannot wrench itself free from the power of the wider political economy. Indeed, its economic performance is to a large extent dependent on factors outside its control.

This is not to say that regions or small nations have no room for manoeuvre. Indeed, both Scotland and Slovakia showed the ability (with varying success) to construct specific institutions and policies to address economic challenges. The Slovak case, however, shows how difficult it may be to build consensus around appropriate economic strategies and how a fragmented and unstable institutional landscape can be part of the problem rather than solution. Scotland, in comparison, offered a picture of a more coherent strategy and more solid economic development institutions. Indeed, the active engagement of the Scottish Enterprise within the Scottish economy provides an example that a regional *animateur* can create tangible outcomes. However, it is important to realise that Scottish Enterprise is an institution that does not operate in a void and whose very existence is hardly a 'matter of choice'. Rather, the agency is nested in, and cannot be separated from, a wider context of wider political, institutional and financial arrangements and continuous socio-economic struggles of Scotland and the UK. Another important point to emphasise is that the overall economic impact of the agency has to be measured against the backdrop of the wider political economy. In particular, the power of wider divisions of labour and value chains provides powerful constraints for the regional economy within which the agency has to operate. In the light of this, even for a well-organised and well-resourced agency like Scottish Enterprise, shaping international socio-spatial divisions of labour may prove to be a challenge. Commenting on the ability of regional *animateurs* for the changing fortunes of LFRs, it is hard to disagree with Morgan (1995, p.38) that

> '... to do nothing, on the grounds that only "little victories" are possible in the short term, is to foreclose all possibility of less favoured regions becoming something other than they are today'.

However, in the larger scheme of things, it is highly questionable whether a strategy based solely on regional initiative and mobilisation of 'internal' assets will bring about balanced regional development and address internal socio-spatial divides (cf. Morgan, 1997, 1998). Thus, from a wider point of view, the role of economic development agencies in inducing 'regional renewal', 'learning' new development trajectories, and achieving social cohesion has to be seen in a critical light (cf. Chapter 3). The significant limits that regions face in emulating regional prosperity have in turn important implications for the debate on uneven development and these limits also raise serious questions about strategies for a socially and regionally cohesive 'New Europe' (cf. Rhodes, 1995a, 1995b), that will be discussed below.

8.4 Towards the 'New Europe'?

In the light of the above, what are the prospects for regional cohesion in the 'New Europe'? Can efforts to build 'institutional thickness' in regions and countries in Eastern and Western Europe provide a basis for more balanced economic development across the continent? Can 'learning region' strategies help LFRs to enter a 'higher road' of development and overcome the social and economic difficulties they face? Can specialised economic development agencies provide a crucial role in the process? On the basis of the theoretical discussion and empirical evidence offered above, this thesis supports the view that such strategies need to be seen in a critical light. The 'learning region' approach may seem attractive; however, its expected effects may prove illusionary. Indeed, the ability of regions to 'learn' new development trajectories and to 'improve' themselves economically within the current political economy may be limited.

This is not to argue that action on the regional level is unimportant or insignificant. Indeed, if we acknowledge that an economy is an 'institutionalised social process', and conceptualise region as a particular form of institution within a wider socio-economic context, then it follows that regions both shape, and are shaped by, socio-economic processes. However, the *power* of regions and their institutions in shaping these processes needs to be critically assessed. First, it is important to take into account that the wider political economy and legacies of the past may provide powerful constraints on regional economic development. Even regions or 'region states' with strong 'institutional thickness' and powerful governance structures may find the ability to alter their regional economic fortunes severely circumscribed. Second, it has to be recognised that the power of regional institutions is not given. Instead, it is subject to socio-economic struggles within and outside regions, and thus historically and spatially contingent. It is therefore not surprising that a huge diversity of the regional institutional landscape in Europe can be observed. As Rhodes (1995c, p.329) noted:

> '...regions have the capacity to influence, if not shape, their futures [but] this capacity varies enormously across the European Community. ...[T]he range of that diversity [is] spanning the cohesive and highly organised region of Baden-Württemberg, the much less organised but nonetheless proactive regions of Scotland and Wales, the fragmented and strategically divided region of North West England, and the weak and disadvantaged regions of southern Europe, with their inadequate institutional and associational structures.'

This diversity, however, goes beyond the question of 'organisation' or evolving institutions of regional governance. The difference is manifested also through the very presence or absence of a broader set of institutions such as high-tech firms, research centres, technical colleges, service centres, universities, training centres, technopoles, industrial information and knowledge networks, etc. All these are claimed to be crucial for competitiveness in the new 'knowledge economy'. But as Amin and Tomaney (1995b, p.32) argued,

> '[t]hese new competitiveness factors are not the ready properties of Europe's less favoured regions, given their dependence on traditional industries (especially Objective 2 regions) or the absence of the institutional density, diversity and interdependence characteristic of learning-based competition (especially Objective 1 regions)'.

Fundamentally, this means that in contrast to successful regions, many LFRs may be short of quality assets or elements around which to 'organise' their economic strategies. In addition,

> '[a] market-led approach to European integration will compound these deficiencies as skills and other resources are drawn to the prosperous regions, leaving an insurmountable gap in development potential between the "islands of innovation" and the European economic periphery' (Amin and Tomaney, 1995b, p.32).

This latter observation is also of particular interest to regions and countries within the Eastern European 'super-periphery'. There, a decade of market-led 'transition' wrought political, economic and institutional turbulence and eroded the knowledge-base on which long-term competitive economic growth could have been built. The problems experienced in the Eastern half of the 'New Europe' could be seen as being part of a wider set of contradictions in which neo-liberal 'transition', efforts to join the European Union and attempts to build a competitive and at the same time socially palatable 'knowledge economy' can undermine each other. One of the outcomes of such contradictory processes is that social and spatial inequalities in Europe appear to be growing. Indeed, quite contrary to the original expectations, the crucial gap between Western and Eastern Europe has increased. Thus, not only was the 'challenge of cohesion' (Amin and Tomaney, 1995b) not addressed, the challenge in fact grew bigger. Indeed, with the forthcoming Eastern enlargement the EU will embrace quantitatively and qualitatively a new dimension of inequality (Dunford and Smith, 2000) with most candidates displaying unprecedentedly low regional economic levels.

Consequently, the 'regional dilemma in a neo-liberal Europe' (Amin and Tomaney, 1995e) became more pronounced than ever before, with competitive pressures growing precisely at the time when the need for action on the cohesion side is the most pressing. The tension between the two dimensions does not seem to have been smoothed-out by the alleged arrival of the 'knowledge economy', quite the opposite (cf. Hudson and Williams, 1999).

Meanwhile, through the Maastricht Treaty, the European Union remains committed to social and economic cohesion and has to act accordingly. However, thus far the response to the growing problems has been rather lukewarm. It is a well known fact that the Structural Funds, the main financial instrument of the EU to promote cohesion, are probably insufficient considering the nature and scale of the problems in the Western European LFRs (Amin and Tomaney, 1995e, p.179). Amounting to only 0.24 % of EU GDP, the Funds are very small indeed especially when compared to the alleged welfare gains derived from the Single European Market (ibid, p.179). However, rather than raising substantial *additional* resources, the planned response to the growing challenge of cohesion in the enlarged EU is to shift *existing* funding from Western LFRs to the countries and regions of Central and Eastern Europe (see Armstrong and Taylor, 2000, p.315) that face significant challenges (see Bachtler et al., 2000b). There is a risk that this manoeuvre will further erode the position of LFRs in the West while probably not being enough to offset social and economic problems in the Eastern part of the 'New Europe'.

In the context of the financial constraints the EU is facing, the 'learning region' approach emerges as very attractive strategy to follow (cf. Landabaso, 2000, p.75). It holds a promise to address both the competitiveness and cohesion side of the dilemma and implies greater impact for less money (cf. Chapter 3). Unsurprisingly, it is favoured by both the European Commission and the member states (Lagendijk, 1999; Lagendijk and Cornford, 2000) and is seen by many policy makers as a suitable replacement for old and costly regional policies that are largely considered to have failed (cf. Malecki, 2000). At the same time, for LFRs in both Eastern and Western halves of the continent, the 'learning region' approach raises hopes that the mobilisation of 'hidden potentials' and better organisation of 'internal assets' will bridge the economic gap and put them on the 'higher road' of economic development

(Cooke, 1995a; inter alia). Thus in Western Europe, the 'learning region' paradigm entered 'mainstream policy' thinking (Armstrong and Taylor, 2000, p.300) and Scotland is a good example of this. Meanwhile, 'cluster' and 'learning region' recipes are gaining ground in CEECs (see Radosevic, 1999; Dyker and Radosevic, 1999; inter alia). In truth, it is hard to discount a strategy that emphasises learning, knowledge and innovation and, at the same time, shows a great deal of sensibility for, and recognition of, the importance of the regional tier. Indeed, learning, knowledge and innovation are important factors of economic and human development. The emphasis on regional level institutions should also be welcome, as it seems that there is a scope for enhanced co-ordination of policy delivery at the regional level (Tomaney, 1996, 2000; Rhodes, 1995b, p.10). Building institutional capacity and experimenting with new forms of regional governance, therefore, should be encouraged. It this respect this thesis is sympathetic to those voices within the 'new regionalist' camp that see the greater involvement of actors at the regional level not only as a mean of making regions more 'competitive', but also as a way of strengthening democratic accountability and encouraging greater social cohesion.

However, it is difficult to see how these objectives can easily be achieved within the current profit-driven political economy. Indeed, policy models such as 'learning region' uncritically embrace the mantra of the 'knowledge economy' and often unjustifyingly consider the creation and the use of knowledge as unencumbered by market forces. From a more critical perspective, as demonstrated in this thesis, knowledge, learning and innovation have to be seen as part of the more complex picture, where knowledge, power and wealth partake in a circular and cumulative causation process within which knowledge can be at the same time cause and outcome of economic development. The *regional* side of the equation also displays significant limits, as emphasised through the thesis. Importantly, the 'associational' power of regional institutions (Amin and Thrift, 1995) has to be measured against the power of the wider political economy, in particular that of international capital (cf. Lovering, 1999; inter alia). Thus, LFRs cannot hope for a substantial change in their position on the map of inequality without dramatically re-shaping inter-regional and international divisions of labour and the 'flows of value' (cf. Smith et al., 2002) that accompany them.

In this context, the potential contribution of the 'learning region' strategy to the eradication of current patterns of uneven development in Europe is questionable. In an optimistic scenario, moderate improvements can be achieved in some cases. Some regions can indeed benefit from a better co-ordinated institutional framework and whose 'little victories' could be hailed as being 'better than nothing'. A more realistic view, however, suggests that this strategy will the leave broad pattern of inequality intact, turning 'learning region' into an empty policy slogan. Indeed, many regions may discover that mimicking 'institutional thickness' may simply not be enough to emulate economic success while regional development strategies that rely on strengthening local learning capacities may misread outcomes for causes. In the worst case scenario, the strategy can contribute to the aggravation of regional imbalances by supporting a self-defeating army of 'learning regions' competing against each other (Sokol and Tomaney, 2001). Besides reproducing an unhelpful set of regional winners and losers, such competition may also have ramifications for intra-regional inequalities. Indeed, heightened competition will require the concentration rather than redistribution of resources at the regional level. The concentration of resources in a small number of 'prestigious' projects (such as the Alba Centre in Scotland) carries the risk that the 'development *in* the region' rather than 'development *of* the region' (cf. Lovering, 1999) will be achieved, to the detriment of intra-regional socio-spatial equality.

In addition, there is a danger that the 'learning region' discourse may further undermine the cause of LFRs by obscuring the causal mechanisms of uneven development under capitalism. This may have unfortunate policy ramifications. Indeed, over-emphasis on the *endogenous* factors of economic growth may create the misleading impression that the 'knowledge economy' is essentially a collection of 'learning regions', where each of the regions is responsible for its own economic success. Inevitably, the 'failure' of some regions can be ascribed to 'pathological' factors. This weakens the case for inter-regional (let alone inter-national) redistribution and plays into the hands of the neo-liberal orthodoxy (Lovering, 1999) that will not hesitate to transfer the responsibility for economic failure from the nation-state to the regional level (Vigor, 2000) without addressing the real causes of uneven development. As has been made clear in the thesis, the fortunes of regions are inextricably linked through socio-spatial divisions of labour and therefore regional economic trajectories have to be seen within a wider socio-economic environment. From this point of view, a 'learning region' strategy is simply not good enough as a tool for addressing broad patterns of regional inequality.

Therefore, in order to provide more socially and spatially cohesive and sustainable models of development, a search for policy alternatives should be encouraged. Such a search will have to start with the acknowledgement of the deep regional differences wrought by decades of historical development, and how these are translated into the patterns of uneven development across the continent. It will have to take into account how these historical legacies interact with the power of the wider political economy and recognise that the room for manoeuvre of regions and regional institutions within the given constraints is limited. In addition, alternative policy frameworks will have to give due attention to social and spatial inequalities *within* regions. When considering an appropriate policy action, they will have to recognise the limits of supply-side solutions and perhaps explore anew the possibilities of demand-side strategies over and above supply-side measures (cf. Smith and Pavlínek, 2000, p.237; Amin and Tomaney, 1995d). There is little doubt that this will require policy-makers to move beyond neo-liberal based models of development, and to open a debate on an alternative regulatory structure of a future political economy (cf. Michie and Grieve Smith, 1995) if more sustainable, and socially and spatially more equitable models of development are to be identified.

The inspiration for such an alternative framework can be drawn from a recent work of European Economists for an Alternative Economic Policy in Europe (EEAEPE, 2002). Their 2002 Memorandum, *Better Institutions, Rules and Tools for Full Employment and Social Welfare in Europe*, outlines a policy approach that is likely to be more successful in mitigating social and regional imbalances. A cornerstone of their approach for a more cohesive 'New Europe' is based on a 'European Social Model', in which more democratic and efficient macroeconomic policy should be strengthened alongside greater commitment to social welfare. Among the policy measures to achieve the above, EEAEPE (ibid.) suggest that the mission of the European Central Bank should be broadened to include full employment and sustainable growth; that the European Parliament and national parliaments should be more involved in economic policy co-ordination; and that tax competition within

Europe should be eliminated through harmonisation of corporate taxation and mutual information about foreign capital income.

They also suggest that all members of society should have the unconditional right to decent living resources, and that minimum standards for social expenditure should be introduced. In addition, public services should be withheld from the 'neo-liberal logic of unfettered competition' while financial market regulation must be enforced in public interest. Importantly, EEAEPE (ibid., p.2) also call for an increase of the EU budget to 5% of European GDP by 2007 and suggest that greater attention be given to problems in Europe's eastern periphery which is, in their words, 'subordinated to the rules of the internal market but excluded from the benefits of the social model' (ibid, p.10). Thus, an *all-European development approach* is advocated in the pursuit of full employment, social welfare and equity and ecological sustainability across the continent.

It could be argued that such an alternative regulatory architecture in the 'New Europe' should recognise the regional tier as one of its important building blocs (cf. Amin and Tomaney, 1995e) and the pursuit of regional cohesion as one of its major aims. Regardless of the shape of such a regulatory framework, however, the discussion in this thesis supports the view that a major change in the current inequalities in Europe is probably unachievable without the *active and sustained redistribution of knowledge, power and wealth to marginalised people, communities, regions and countries*. It is a matter of further inquiry whether such a project could be instituted from within Europe, or whether a much broader socio-economic change will be required.

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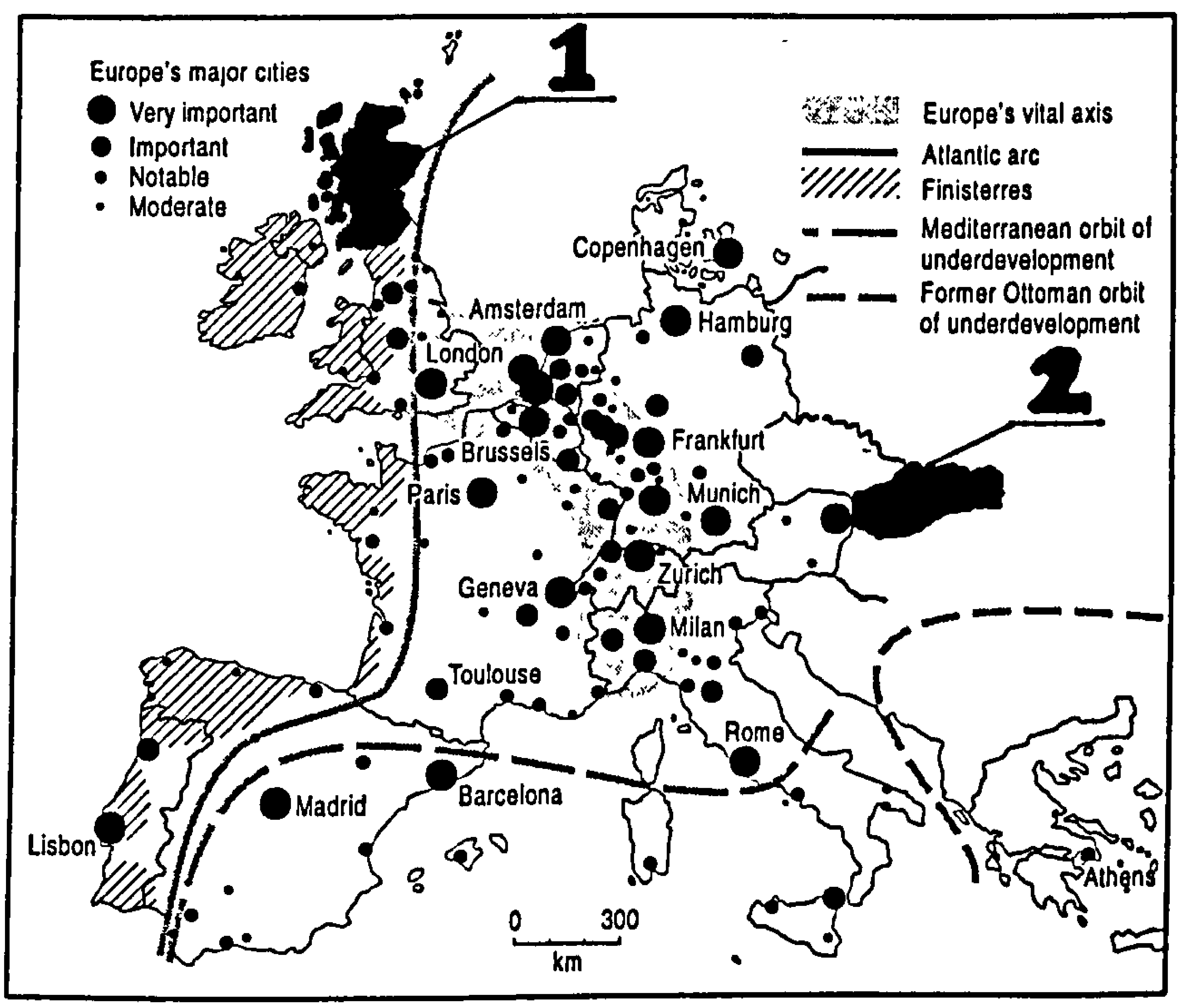
The position of Scotland and Slovakia within the European space-economy (1 – Scotland; 2 – Slovakia)



Source: adapted from Dunford and Hudson (1996, p.12)

Figure 2.1: The 'knowledge economy'

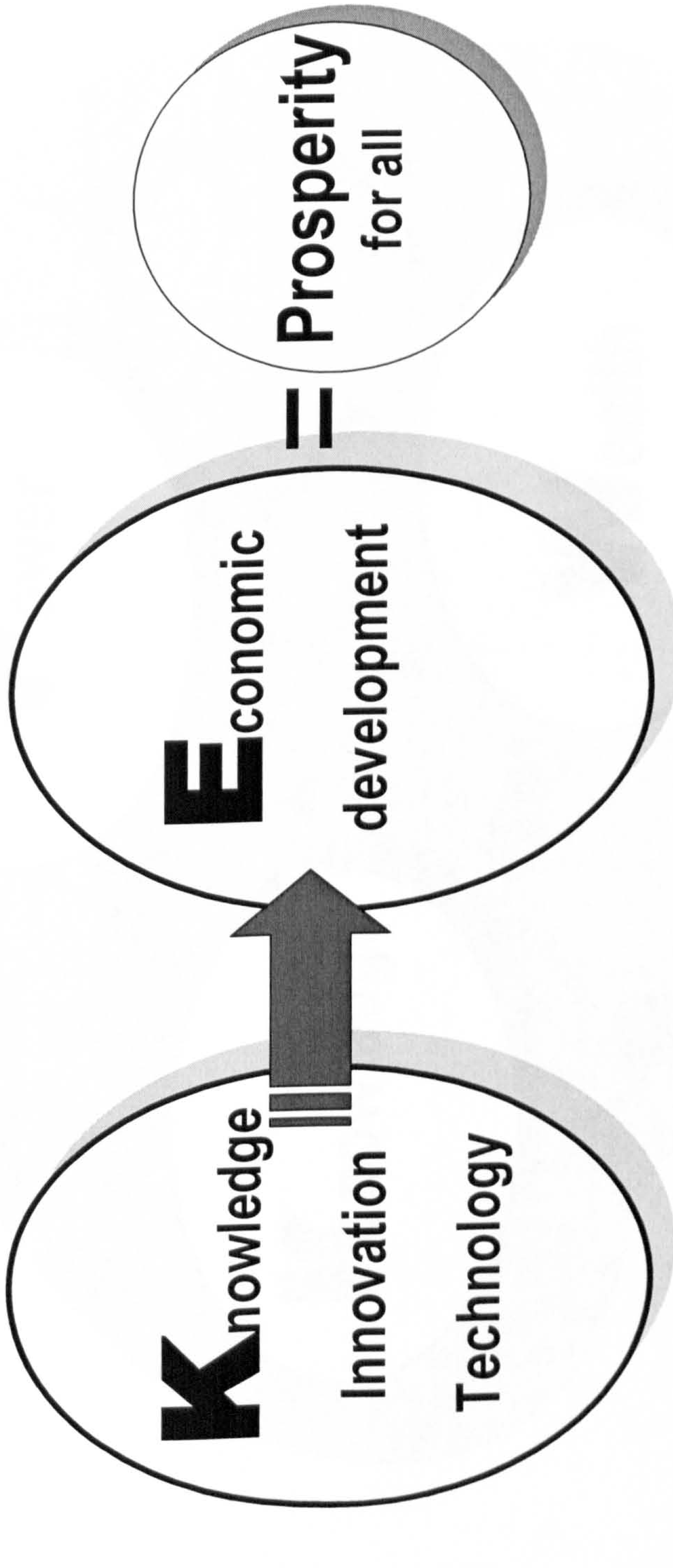


Figure 2.2: *The simplified 'knowledge-power-wealth' matrix*

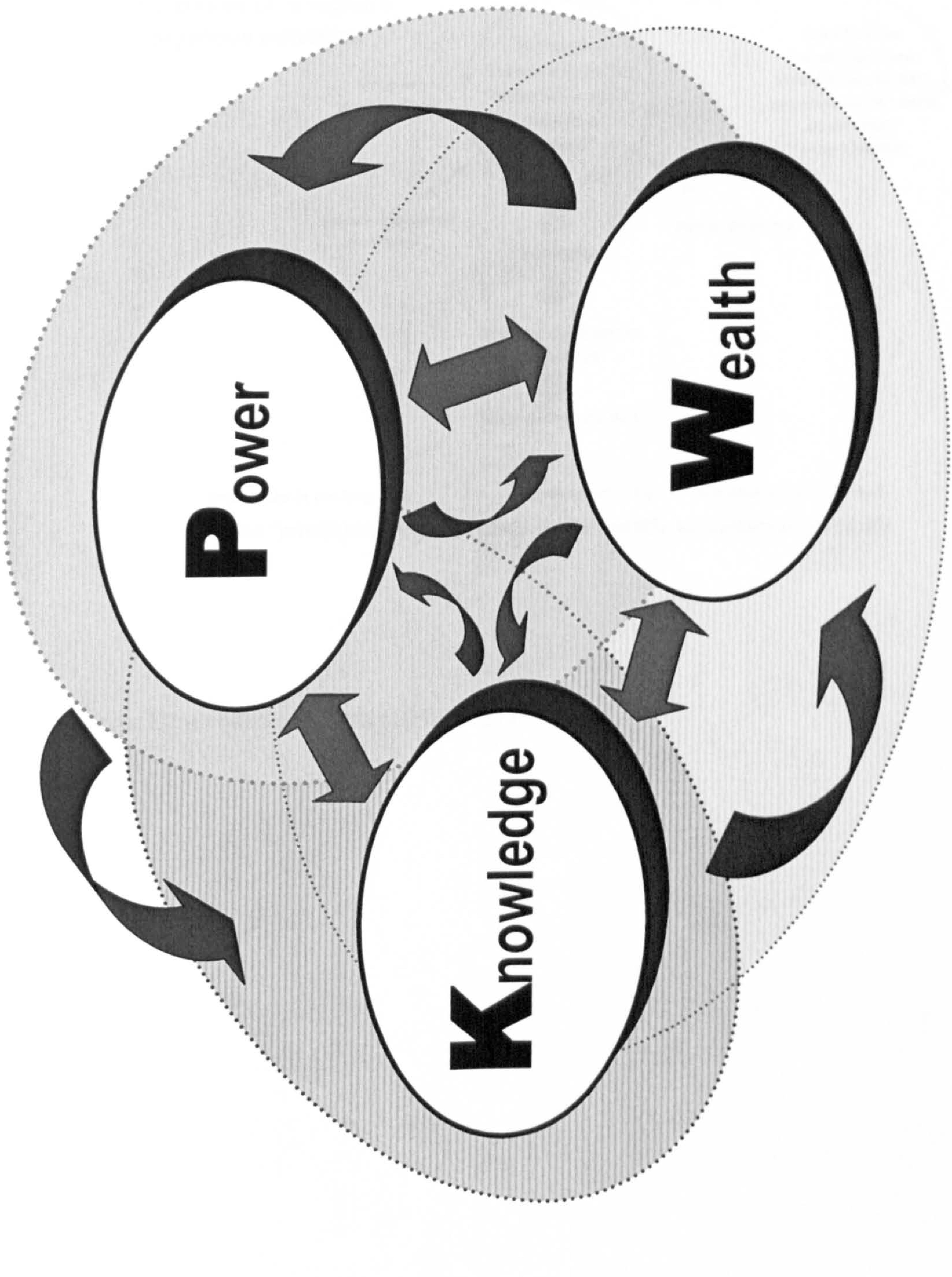
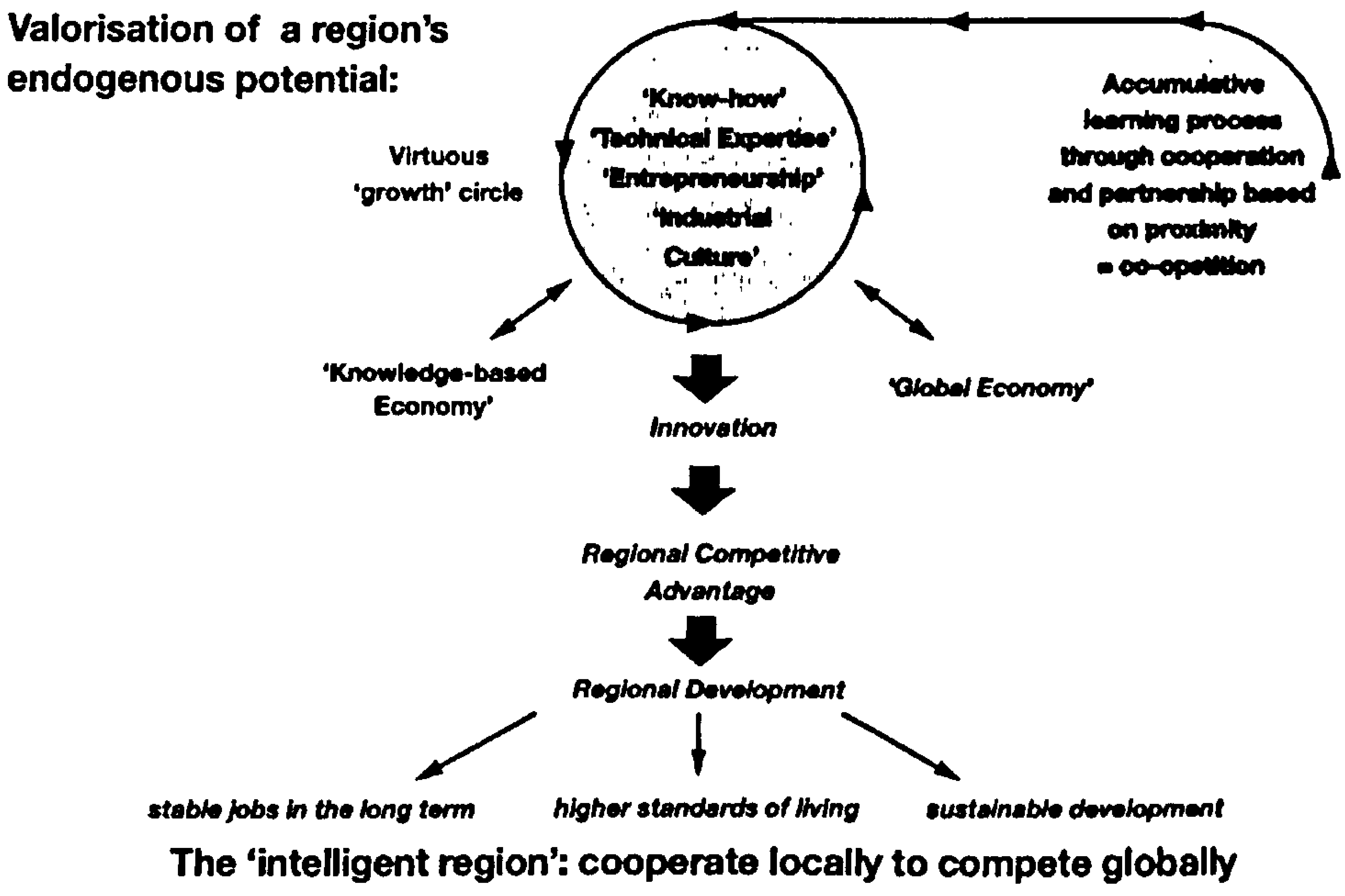


Figure 3.1: The 'learning region'



Source: Landabaso and Reid (1999, p.27)

Figure 3.2: The 'learning region'

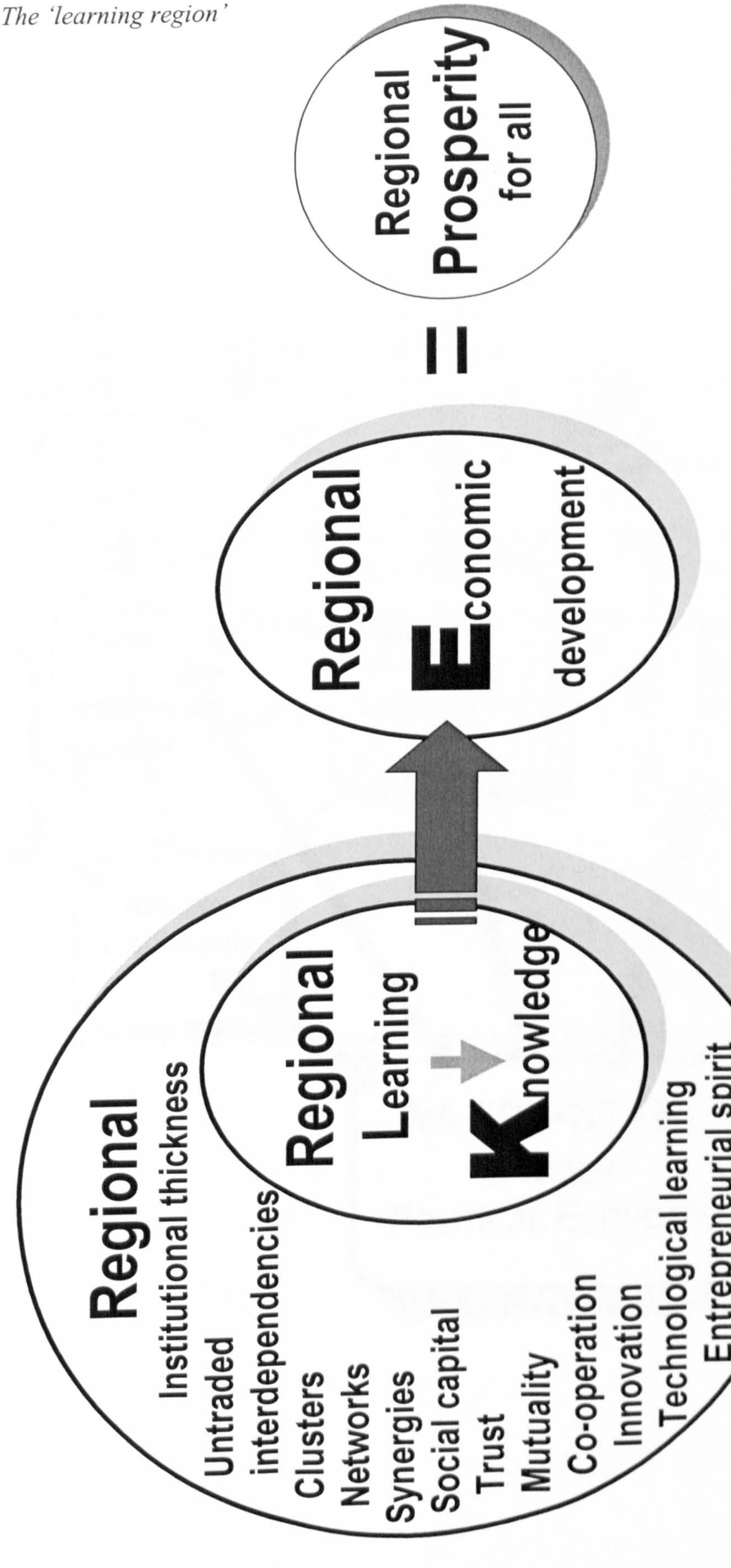


Figure 3.3: Region in the wider political economy

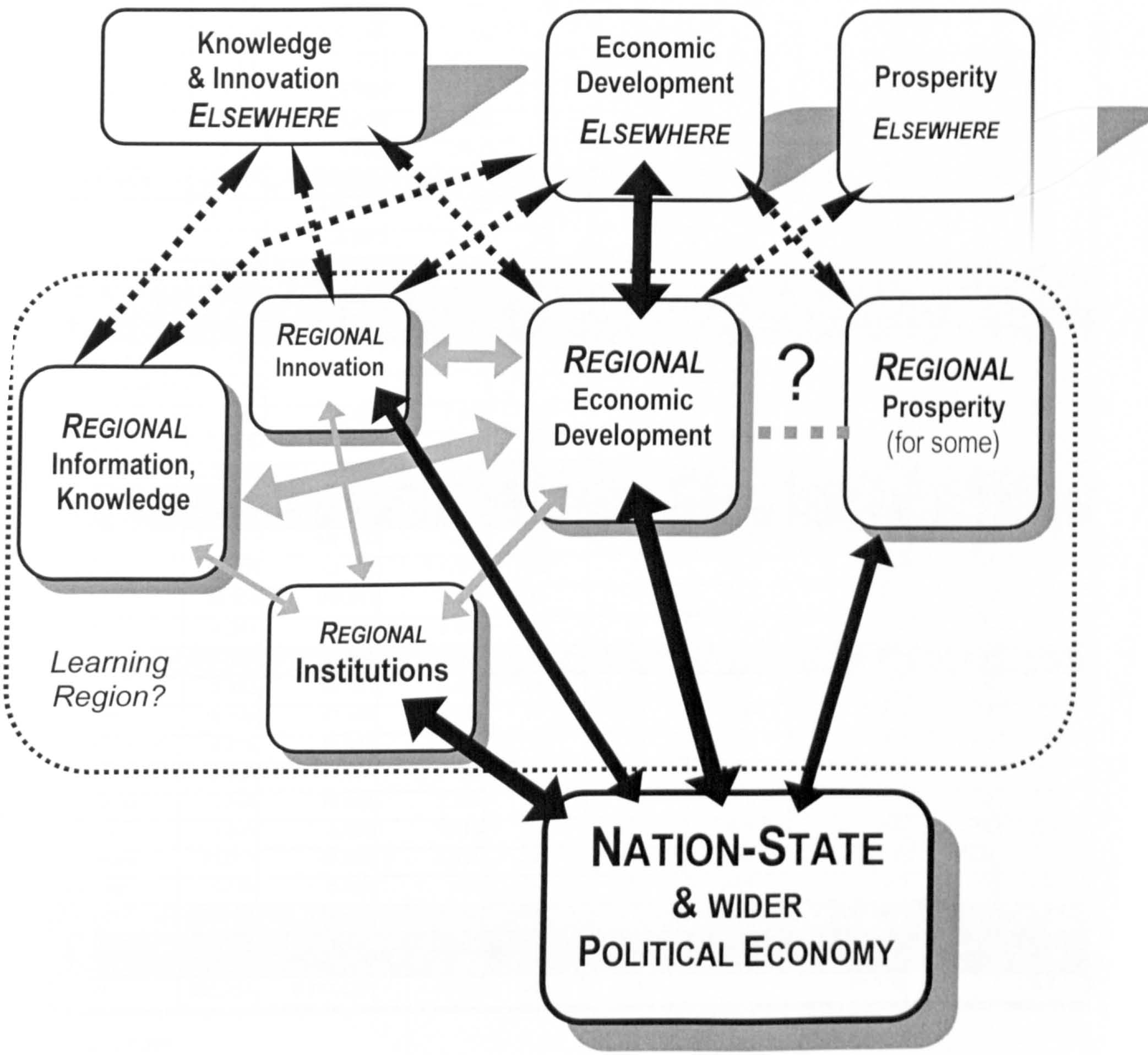


Table 4.1: Super-Periphery of the 'New Europe'

Indicator:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Country:	Population (thousands)	1999 GDP PPP (millions of international dollars)	1999 GDP PPP per cap (international dollars)	1999 GDP per capita in PPS (EU=100)	1997 Real GDP in 1997 (1989=100)	1999 Real GDP/NMP (1989=100)	1989-1998 FDI inflows cumulative (millions of US dollars)	1989-1997 FDI inflows cumulative (US $ per capita)	Unemployment in 1998 (%)
Slovenia	1,981	31,198	15,749	71	99	105.3	1,274	639	13.8
Czech Rep	10,280	126,951	12,349	59	98	95.3	8,473	823	6.7
Zone *a+*	**12,261**	**158,149**	**12,899**	**60**	...	...	**9,747**	**793**	**7.8**
Hungary	10,068	108,872	10,814	50	90	99.4	16,903	1,667	8.7
Slovakia	5,396	55,360	10,259	49	95	101.7	1,223	227	13.0
Poland	38,695	308,788	7,980	37	112	121.8	12,442	321	9.6
Estonia	1,442	11,144	7,728	36	73	78.3	1,010	695	5.3
Croatia	4,464	30,562	6,846	32	76	77.9	1,422	297	14.4
Lithuania	3,699	23,275	6,292	29	61	64.2	1,271	344	5.8
Latvia	2,430	15,152	6,235	29	56	59.6	1,358	543	7.3
Zone *a+/a*	**66,194**	**553,153**	**8,357**	**39**	...	...	**35,629**	**534**	**9.7**
Romania	22,458	127,195	5,664	27	82	75.8	3,370	149	10.5
Bulgaria	8,216	40,553	4,936	22	63	70.7	1,222	147	14.0
Zone *a*	**30,674**	**167,748**	**5,469**	**25**	...	...	**4,592**	**148**	**11.4**
Super-Periphery A (without a-)	**109,129**	**879,050**	**8,055**	**37**	...	...	**49,968**	**455**	**10.0**
Bosnia-Herz.	*(3,881)*	...	...	...	...	...	...	...	...
Yugoslavia, FR	*(10,616)*	...	...	...	...	*(41.6)*	...	...	*(24.0)*
Macedonia, FYR	2,021	8,901	4,404	20	56	76.8	124	59	30.0
Albania	3,375	9,340	2,767	13	80	95.7	473	148	13.8
Zone *a-*	**5,396**	**18,241**	**3,380**	**16**	...	...	**597**	**115**	**19.9**
Super-Periphery A	**114,525**	**897,291**	**7,835**	**36**	**96**	...	**50,565**	**439**	**10.4**
Russia	146,512	918,820	6,271	29	58	57.6	9,201	63	9.8
Belarus	10,208	62,337	6,107	28	71	81.4	346	34	2.3
Ukraine	49,908	159,847	3,203	15	37	39.3	2,696	53	4.0
Moldova	4,281	9,497	2,218	10	35	31.3	342	80	1.7
Zone *b*	**210,909**	**1,150,501**	**5,455**	**25**	...	...	**12,585**	**60**	**7.9**
Georgia	5,452	28,561	5,239	24	32	31.5	512	95	2.6
Kazakhstan	15,438	67,496	4,372	20	63	62.0	5,729	365	14.5
Turkmenistan	4,779	12,570	2,630	12	42	74.0	762	162	3.0
Azerbaijan	7,980	19,139	2,398	11	40	46.8	3,233	425	2.6
Kyrgyzstan	4,744	10,580	2,230	10	57	66.2	309	67	7.5
Armenia	3,809	8,435	2,214	10	38	60.3	265	72	10.8
Uzbekistan	24,600	47,258	1,921	9	87	93.9	423	18	0.7
Tajikistan	6,218	5,804	933	4	40	33.1	87	15	5.7
Zone *b-*	**73,020**	**199,843**	**2,737**	**13**	...	...	**11,320**	**157**	**5.5**
Super-Periphery B	**283,929**	**1,350,344**	**4,756**	**22**	**57**	...	**23,905**	**85**	**7.3**
TOTAL	**398,454**	**2,247,635**	**5,641**	**26**	**73**	...	**74,470**		**8.2**

(1) World Bank (2000)
(2) World Bank (2000)
(3) Calculations by author based on World Bank (2000)
(4) EC (2000, p.3) and calculations by author
(5) EBRD (1998, p.50); Value for super-peripheries is a weighted average; 'Super-Perihery A' excludes Yugoslavia and Bosnia-Herzegovina
(6) ECE (2000, p.225)
(7) EBRD (1998, p.81) and calculations by the author.
(8) EBRD (1998, p.81) and calculations by the author.
(9) Kolodko (2000); Figures for Macedonia, Belarus, Moldova, Georgia and Kyrgyzstan are for year 1997, figure for Turkmenistan is for year 1995
Note: Totals for zone 'a-' and 'Super-Periphery A' exclude Bosnia-Herzegovina and Federal Republic of Yugoslavia (Serbia and Montenegro) due to non-availability of relevant data.

Figure 4.1: Transition: 'model' scenario

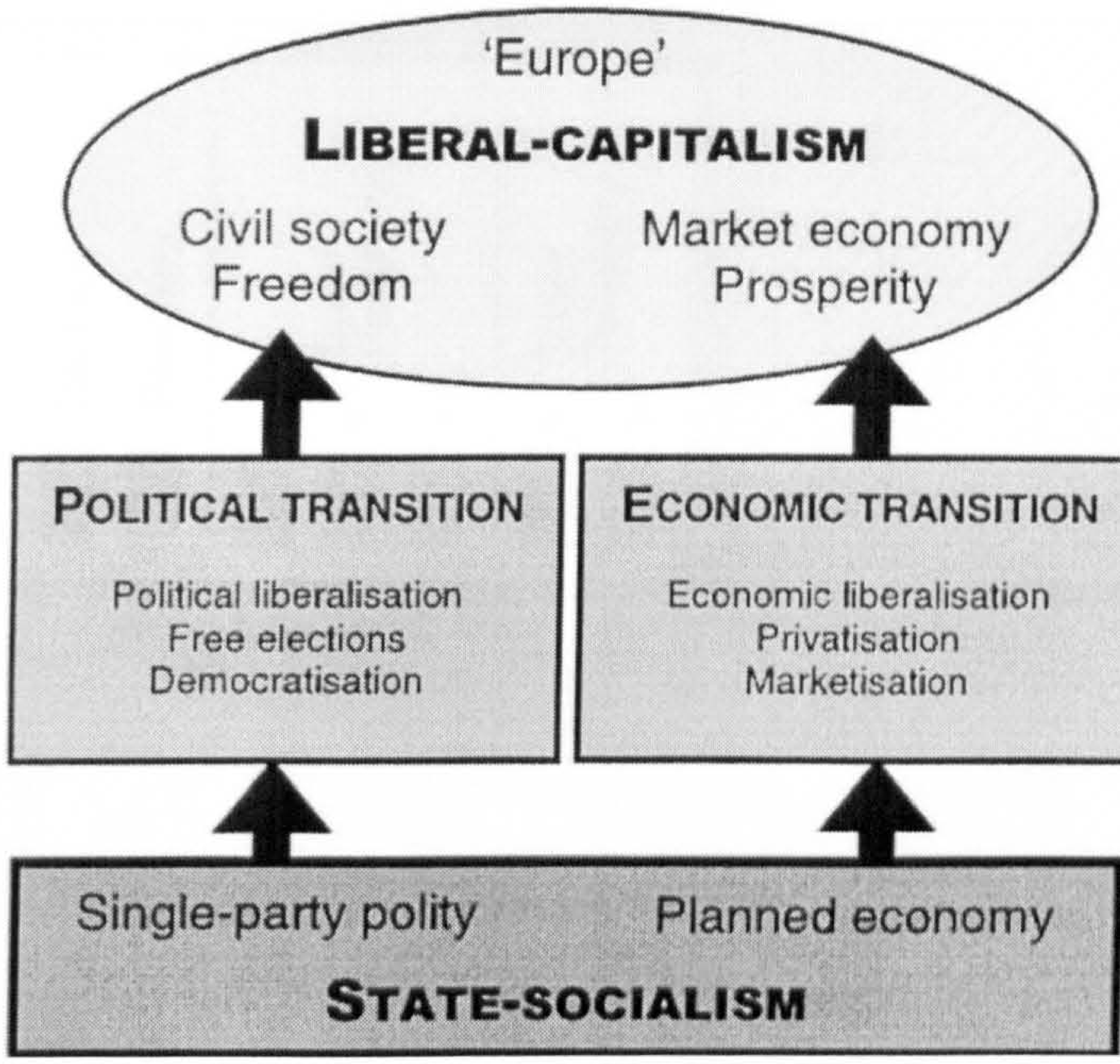


Figure 4.3: Transition: 'vicious circle' scenario

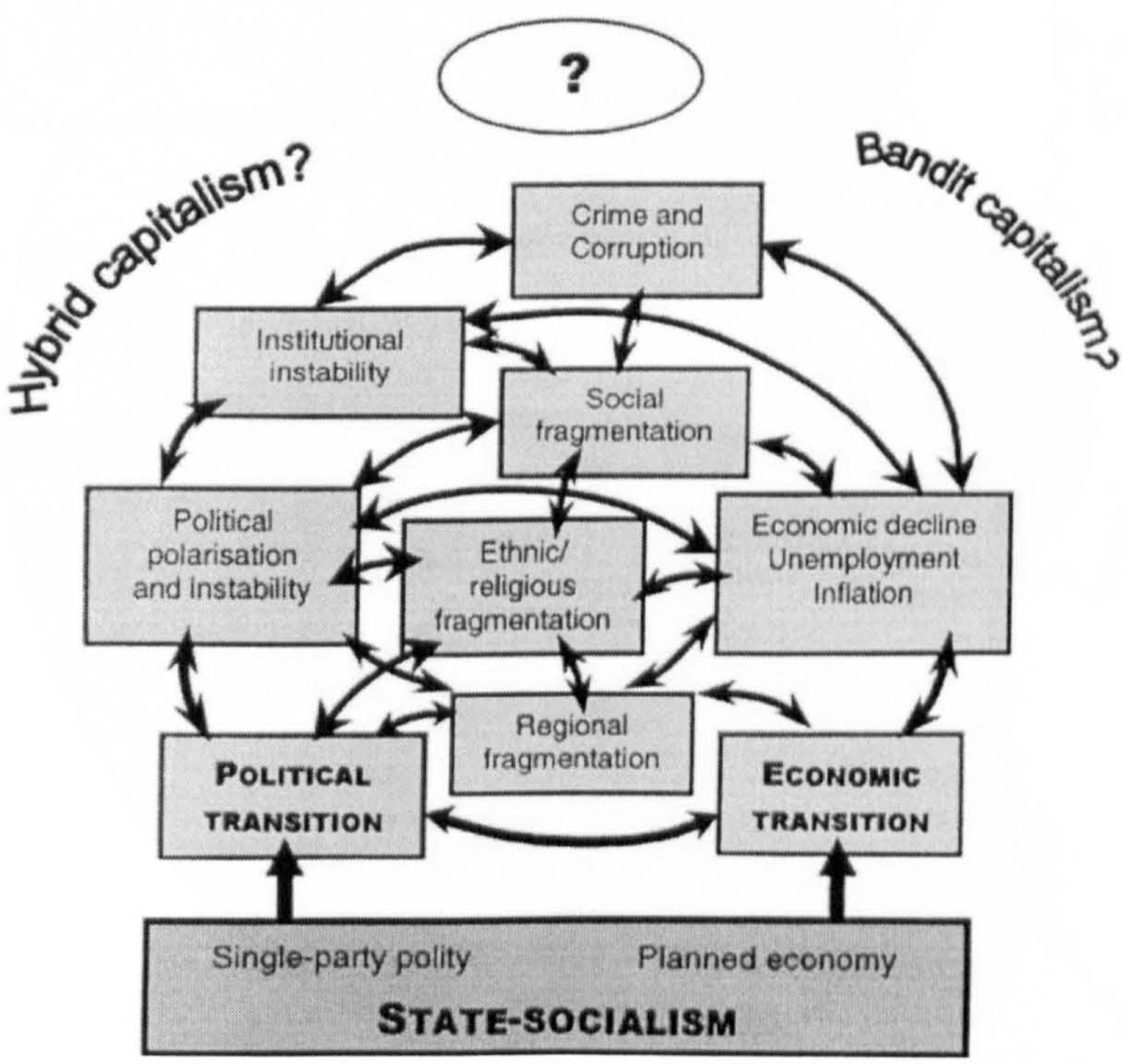


Figure 4.2: Space-economy of the 'New Europe'

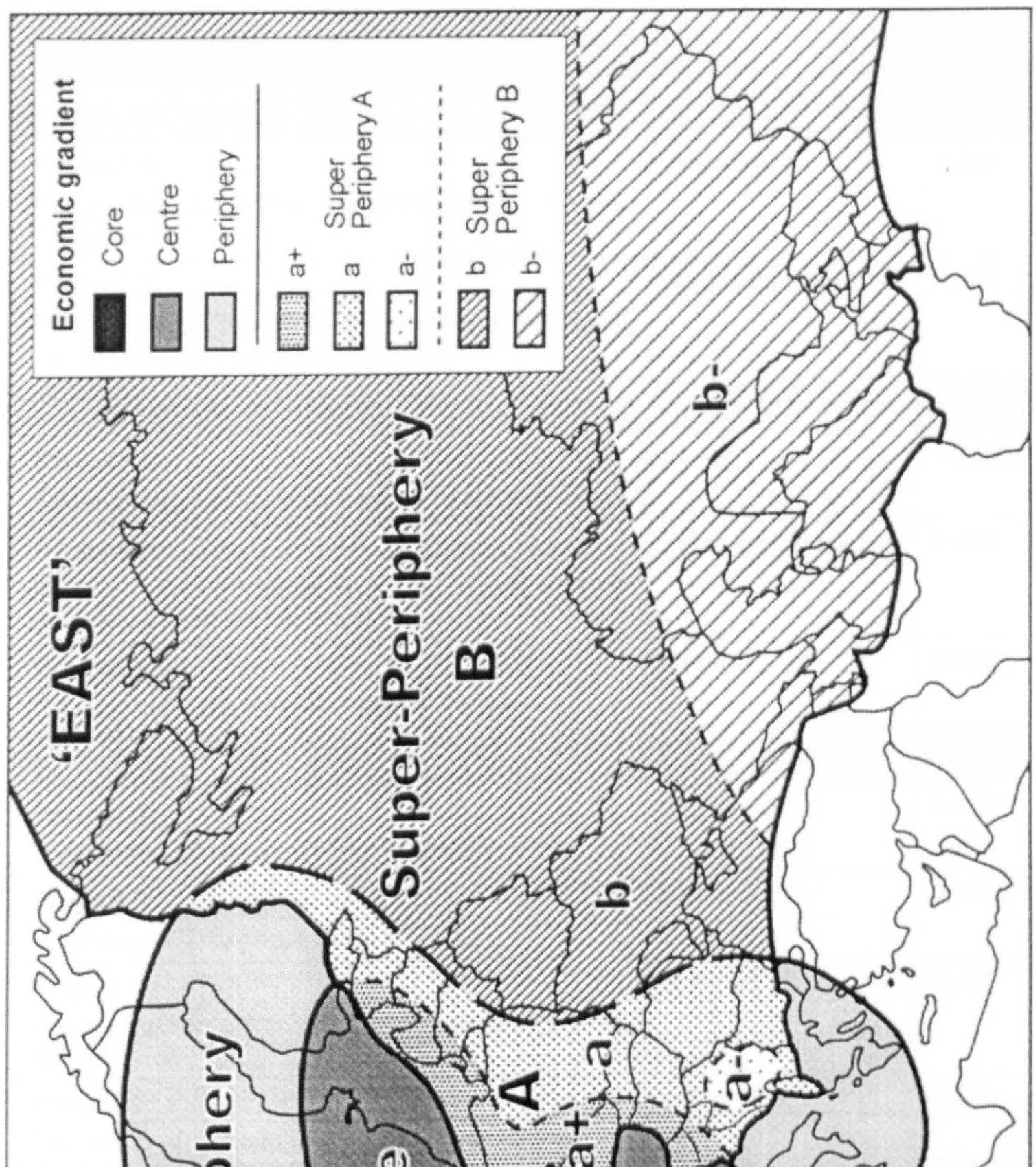
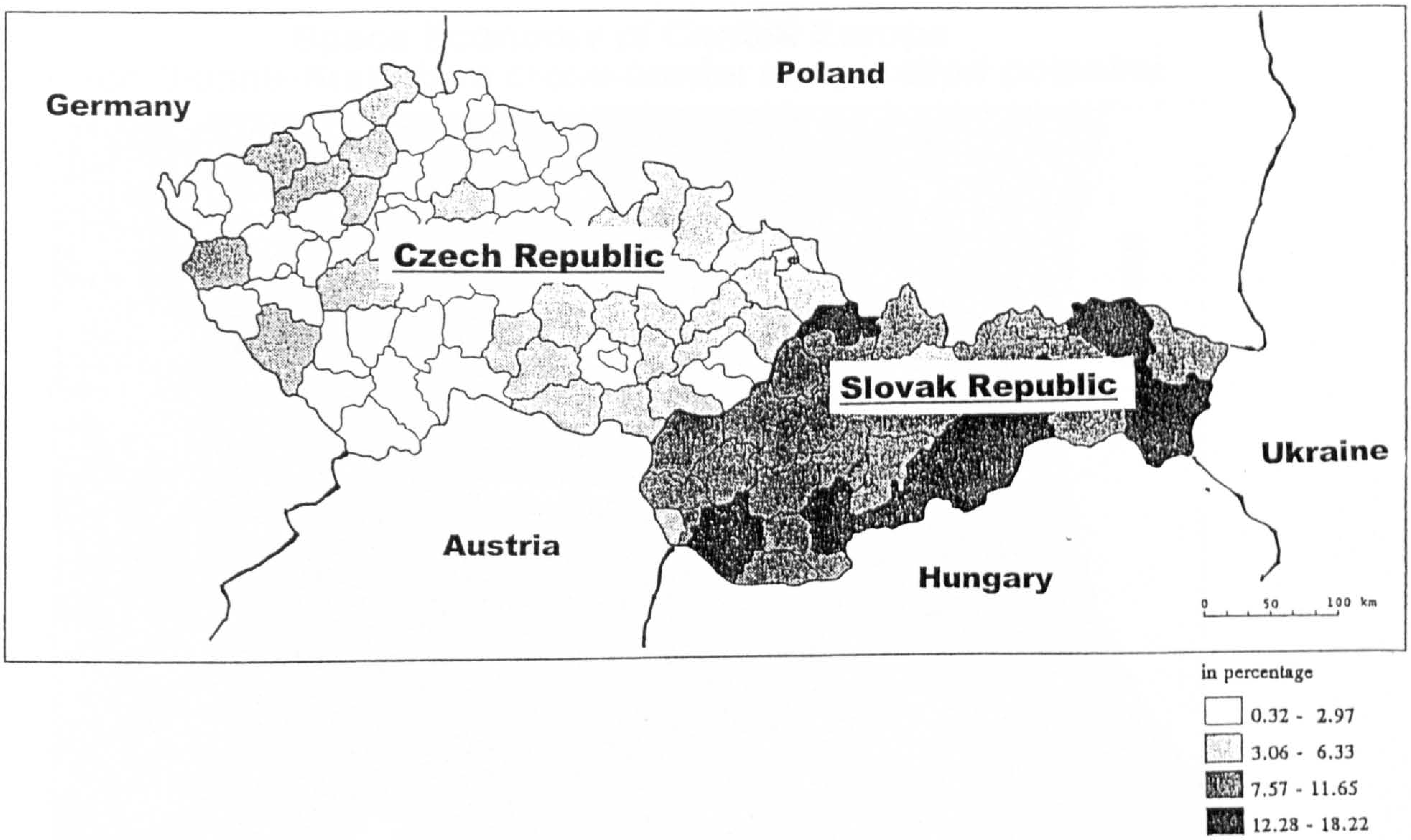


Table 7.1:
Slovak-Austrian PHARE Cross-Border Co-operation Programme (CBC), Financial Memorandum 1995

Priority / Project	Type of Project	Budget (MECU)
Priority: *Infrastructure*		
Project 1: Ferry Boat Zahorska Ves (Slovakia) - Angern (Austria)	investment	0.339
Project 2: Bridge across the Morava river Moravsky Svaty Jan (Slovakia) - Hohenau (Austria)	study and project	0.200
Priority: *Economic Development*		
Project 3: Science and Technology Park in Bratislava region	study	0.245
Project 4: Industrial Park (Special Economic Zone) Jarovce (Slovakia) - Kittsee (Austria)	study and project	0.500
Project 5: Development Study of Bratislava Region	study	0.300
Priority: *Environment*		
Project 6: Wastewater Treatment Plant in Gajary	investment	0.315
Project 7: Wastewater Treatment Plant in Zohor	investment	0.644
Project 8: Reconstruction of Wastewater Treatment Plant in Malacky	investment	0.442
Project 9: Reduction of emissions in South West Slovakia	study	0.350
Priority: *Small Projects Fund, Management of the Programme*		
Project 10: Studies, Small Projects Fund, Management, Training	mixed	0.665
TOTAL		**4.0**

Figure 7.1: Unemployment in Czecho-Slovakia (August 1992)



Source: Pavlínek (1995, p.363)

Figure 7.2:
Space-economy of Central Europe and Vienna-Bratislava cross-border co-operation potential

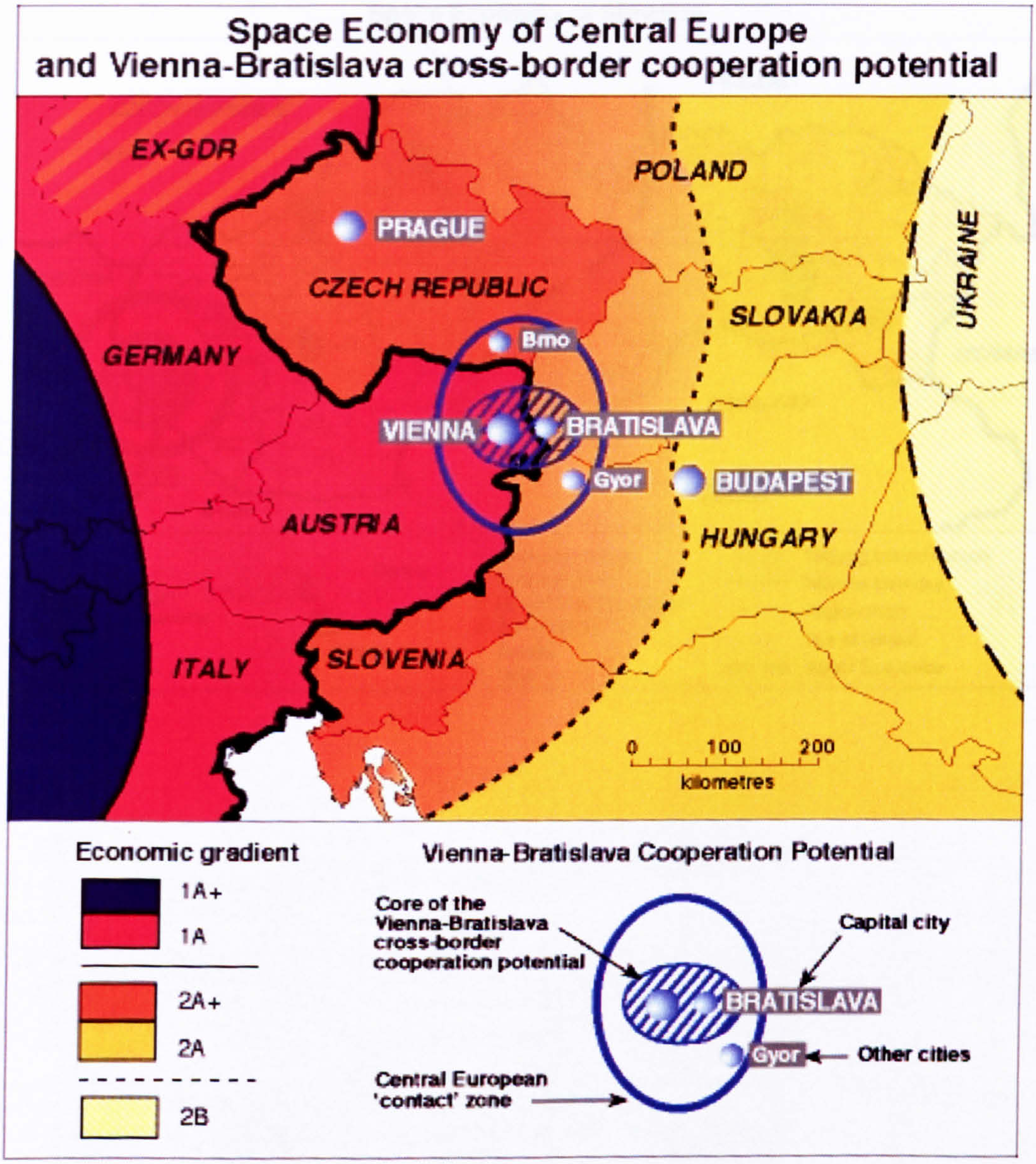
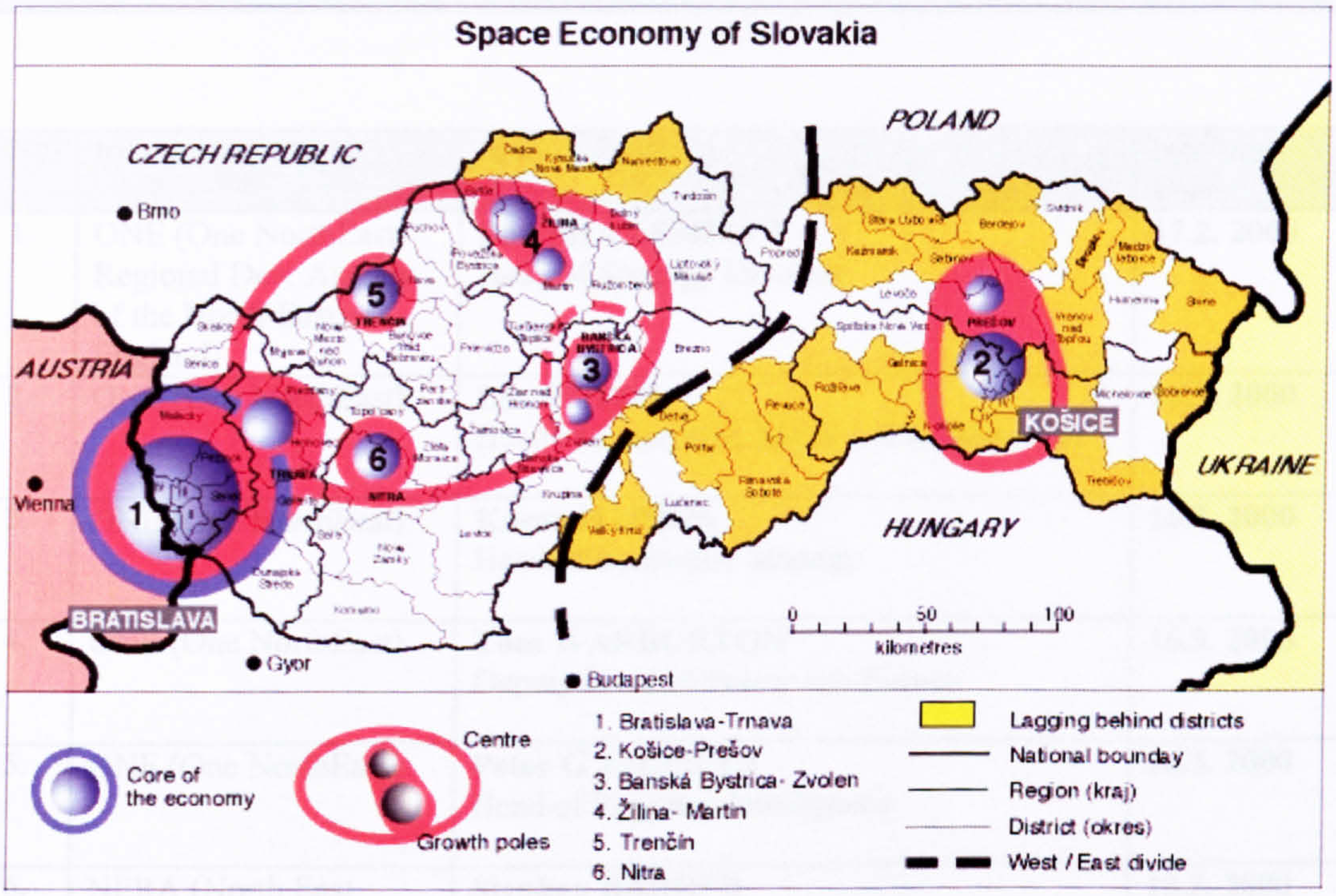


Figure 7.3: Space-economy of Slovakia



List of interviews undertaken in the North-East of England (Pilot Study)

No	Institution	Name, Position	Interview Date
1.	ONE (One NorthEast - Regional Dev. Agency of the North-East of England)	**Phil SHAKESHAFT** Head of Strategy Division	**17.2. 2000**
2.	ONE (One NorthEast)	**Len SMITH** Head of Enterprise, Skills and Employment	**16.3. 2000**
3.	ONE (One NorthEast)	**Karen HARRIS** Head of Economic Strategy	**16.3. 2000**
4.	ONE (One NorthEast)	**Tom WARBURTON** Deputy Head of Policy and Europe	**16.3. 2000**
5.	ONE (One NorthEast)	**Peter G JACQUES** Head of Regional Intelligence	**16.3. 2000**
6.	NERA (North East Regional Assembly)	**Stephen BARBER** Director	**10.2. 2000**
7.	NERA +Association of North-East Councils	**Greame REID** Policy Officer	**10.2. 2000**
8.	GONE (Government Office for the North-East)	**Bob DOBBIE** Director	**11.2.. 2000** **(17.2. 2000*)**
9.	TUC (Trade Union Congress)	**Gill HALE** Chair of Regional TUC; Regional secretary of UNISON	**21.2. 2000**
10.	TEC (Training and Enterprise Council)	**Kevin RICHARDSON** Regional coordinator North-East TECs	**29.2. 2000**
11.	University of Newcastle upon Tyne	**Ian JONES** Research Associate	**11.2. 2000**
12.	University of Newcastle upon Tyne	**David CHARLES** CURDS	**21.1. 2000**

13.	North-East Chamber of Commerce	**Bill MIDGLEY** President	**7.2. 2000**
14.	University of Newcastle upon Tyne	**Prof. Mike COOMBES** CURDS	**20.1. 2000**
15.	University of Newcastle upon Tyne	**Paul BENNEWORTH** Research Associate	**31.1. 2000**
16.	University of Newcastle upon Tyne	**Peter O'BRIEN** Geography Department	**16.2. 2000**
17.	University of Newcastle upon Tyne	**Simon BISHOP** Planning Department	**25.1. 2000**
18.	Durham University	**Prof. David SADLER** Geography Department	**14.3.2001**

List of interviews undertaken in Scotland

N	Institution	Name	Interview Date
1.	Scottish Parliament	**Mike WATSON, MSP** Finance Committee convenor	**29.3. 2000**
2.	Scottish Parliament	**Scott BARRIE, MSP** Member of Audit Committee	**6.4. 2000**
3.	Scottish Executive	**Angela CAMPBELL** Economic Adviser	**23.2. 2000**
4.	SEEL (Scottish Enterprise Edinburgh and Lothian - Regional Development Agency)	**Paul LEWIS** Director of Projects	**29.3. 2000**
5.	SEEL	**Linda GOSDEN,** Lothian Business Shop Manager	**23.2. 2000**
6.	SEEL	**Steven McGARVA** Project Manager	**23.2. 2000**
7.	Scottish Chambers of Commerce	**Lex GOLD** Director	**11.4. 2000**
8.	Industry/ Electronics sector	**Graham STEPHENSON** Human Resources Manager, Cadence Design Systems Limited Livingston, West Lothian	**5.4. 2000**
9.	Edinburgh Local Authority	**Garry STURGEON** Senior Economic Development Officer City of Edinburgh Council	**10.4. 2000**
10.	The Alba Centre	**Lorna EDWARD** Scottish Case Executive The Alba Centre, Livingston, West Lothian	**5.4. 2000**
11.	Media	**Kirsty MILNE** The Scotsman	**10.4. 2000**

12.	Media	**Peter JONES** The Economist	**23.3. 2000**
13.	Think-tanks	**Pat HERD** Centre for Scottish Public Policy	**6.4. 2000**
14.	Scottish Council for Development and Industry	**Iain DUFF** Economist, SCDI	**11.4. 2000**
15.	University of Edinburgh	**Prof. Lindsay PATERSON,** Faculty of Education	**23.2. 2000**
16.	SHEFC (Scottish Higher Education Funding Council)	**Prof. John SIZER, CBE** Chief Executive	**11.4. 2000**
17.	Scottish Enterprise HQ	**Rob POLLOCK** Manager Cluster Development Team	**25.4.2000**
18.	Scottish Enterprise HQ	**Fergus C McMILLAN** Strategic Futures Team Strategy Executive	**25.4.2000**
19.	Scottish Enterprise HQ	**Carl TOGNERI** Director Semiconductors	**8.5.2000**
20.	Scottish Enterprise Glasgow	**Simon PARSON** Property Advisor	**25.4.2000**
21.	Scottish Enterprise Glasgow	**David DONALD** Chief Executive's Office	**8.5.2000**
22.	Scottish Enterprise Grampian, Aberdeen	**Fiona O'BRIEN** Customer Relations & Marketing Manager	**1.12.2000**
23.	Scottish Council for Development and Industry	**Gerry HASSAN** Head of Communications	**8.5.2000**
24.	Scottish Trade Union Association (STUC)	**Tracey WHITE** Policy Officer	**25.5.2000**
25.	EPRC, Strathclyde University, Glasgow	**Ruth DOWNES** Researcher	**25.5.2000**
26.	Fraser Institute of Economics	**Gary GILLESPIE**	**25.5.2000**
27.	Scottish Enterprise HQ	**Kenny RICHMOND**	**7.6.2000**
28.	Fraser Institute of Economics	**Prof. Brian ASHCROFT**	**7.6.2000**
29.	Scottish CBI	**Matthew FARROW** Head of Policy	**13.6.2000**
30.	Locate in Scotland HQ Glasgow	**Claudia TRIQUART**	**13.6.2000**

List of interviews undertaken in Slovakia

December 1999 - January 2000,
June 2000,
December 2000 - January 2001,
June - July 2001

N	Institution	Name	Interview Date
1.	Slovak Ministry for Regional Development	**Mr. Roman ŠÍPOŠ** State Secretary	**31.12.1999***
2.	Slovak Ministry for Regional Development	**Ing. Peter ŤAPÁK** Head of Regional Policy Section	**31.12.1999**
3.	Slovak Ministry for Regional Development	**RNDr. Ivan ZEMKO** Head of EU-Slovakia negotiation team for regional policies	**28.12.1999**
4.	Slovak Ministry for Regional Development	**Mgr. Darinka OBORILOVÁ** Policy Officer	**27.12.1999**
5.	National Bank of Slovakia (NBS)	**Mr. Branislav SODOMA** Head of Statistics Section	**29.12.1999**
6.	National Bank of Slovakia (NBS)	**Mr. Peter BALÁŽ** Head of Section Foreign Exchange Liabilities Administration	**30.12.1999**
7.	Office of the Government of the Slovak Republic	**Mgr. Zuzana SAVITSKÁ** Policy Officer	**27.12.1999**
8.	Office of the Government of the Slovak Republic	**Ms. Nataša HRISENKOVÁ** PHARE Officer	**29.12.1999**
9.	Office of the Government of the Slovak Republic	**Ms. KOSTOLNÁ** PHARE Officer	**3.1.2000**
10.	SNAZIR (Slovak Agency for Foreign Investment)	**Ing. Miroslav ŠIPIKAL** Officer	**3.1.2000**
11.	Government of the Slovak Republic	**Ms. Eva SLATINSKÁ** Office for the Public Administration Reform	**30.12.2000**
12.	Slovak Regional Society	**RNDr. Ivan ZEMKO** Member; Comenius University Lecturer	**6.7.2000**
13.	National Agency for SMEs Development (NARMSP)	**Ing. KELEMBERGEROVÁ** Section Director, and **Mgr. Ľubica HALUŠICOVÁ**	**10.7.2000**
14.	Ministry of Foreign Affairs	**Mgr. Mirka VLACHOVSKÁ** Policy Officer	**10.7.2000**
15.	Ministry of Construction and Regional Development	**Mgr. Zuzana SAVITSKÁ** and **Mgr. Darinka OBORILOVÁ**	**11.7.2000**

16.	Slovak Chamber of Commerce and Industry (SOPK)	**Ing. KURIŠOVÁ**	**13.7.2000***
17.	Ministry of Economy of the Slovak Republic	**Ing. Štefan TURAN** Director Regional Development Section	**14.7.2000**
18.	Ministry of Economy of the Slovak Republic	**Ing. Vladimír MRAČNA** Director SME Development Section	**14.7.2000**
19.	Ministry of Economy of the Slovak Republic	**Ing. Peter ONDREJKA** Director Economic Policy	**17.7.2000**
20.	Ministry of Economy of the Slovak Republic	**Ing. Milan PAVČEK** and **Mgr. Lívia LIPTÁKOVÁ**	**17.7.2000**
21.	Office of the Government of the Slovak Republic	**Ing. Jozef VALÉRA** Director and **Mgr. Jarmila HAVLÍČKOVÁ** Economic Policy Section	**17.7.000**
22.	Slovak Agency for Investment and Trade (SARIO)	**Mgr. Miroslav ŠIPIKAL** Director Regional Section	**18.7.2000***
23.	Ministry of Construction and Regional Development	**Ing. Peter ŤAPÁK** Head Regional Policy Department	**19.7.2000**
24.	Ministry of Construction and Regional Development	**Mgr. Ivana HACAJOVÁ** Director Regional Strategy Section	**19.7.2000**
25.	Office of the Government of the Slovak Republic	**RNDr. Milan RAJČÁK** Development of Regions Section	**18.7.2000**
26.	Ministry of Construction and Regional Development	**Ing. Július SLOVÁK** Director Regional Management Section	**20.7.2000**
27.	Slovak Chamber of Commerce and Industry (SOPK)	**Ing. VLČKO** Secretary to the President	**20.7.2000**
28.	University of Economics, Bratislava	**Ing. Martin SIRÁK**	**19.7.2000**
29.	Office of the President of the Slovak Republic	**JUDr. Eva HRUŠKOVIČOVÁ** Legal advisor	**21.7.2000**
30.	MESA 10 (think-tank)	**Mr. Miroslav KNAŽKO** Researcher	**26.7.2000**
31.	Slovak Ministry of the Economy	**Ing. Štefan TURAN** Director Regional and environmental policy division	**11.1.2001**
32.	Slovak National Agency for SMEs Dev. (NAPRMSP)	**Mgr. L. JANIČKOVIČOVÁ** Regional Division	**11.1.2001**

33.	University of Economics, Bratislava	**Prof. Milan BUČEK** Head of Department Economic Geography	**11.1.2001**
34.	Slovak Confederation of Trade Unions (KOZ)	**JUDr. Mária SVOREŇOVÁ** Legal Advisor to the Vice-President	**12.1.2001**
35.	Slovak Ministry for Regional Development	**Mgr. Darinka OBORILOVÁ** Policy Officer Section of Regional Policy	**18.6.2001**
36.	Slovak Ministry for Regional Development	**Ing. Anna SOKOLIKOVÁ** Policy Officer Section of Regional Policy	**18.6.2001**
37.	Slovak Ministry for Regional Development	**Mgr. Zuzana SAVITSKÁ** Policy Officer Section of Regional Policy	**22.6.2001**
38.	Slovak Ministry for Regional Development	**Mr. Zsolt LUKÁČ** General Director Section of Regional Policy	**6.7.2001**
39.	Slovak Ministry for Regional Development	**Mgr. Monika GUNDOVÁ** PHARE Regional Development Implementation Agency	**6.7.2001**
40.	Slovak Ministry for Regional Development	**Ing. Monika JAVORKOVÁ** Policy Officer	**17.7.2001**
41.	National Council of the Slovak Republic (NR SR)	**JUDr. Miroslav ČÍŽ** Secretary - Committee for public administration; Member of the *SMER* (political party) Executive	**17.7.2001**
42.	Slovak Ministry for Regional Development	**Ms. Lenka ČEČETKOVÁ, MPhil** Director, Bureau of Regional Development Programmes and Co-ordination of the Structural Funds *	**18.7.2001**
43.	Statistical Office of the Slovak Republic	**Ing. Peter HEIDINGER** Information Service Division	**18.7.2001**
44.	SARIO (Slovak Agency for Investment and Trade)	**Ing. Miroslav ŠIPIKAL** Director Regional Section	**18.7.2001**
45.	Slovak Ministry of Interior	**Ing. Jozef HALCIN** Advisor to the State Secretary (Responsible for Public Administration Reform)	**19.7.2001**
46.	National Council of the Slovak Republic (NR SR)	**Mr. Sergej KOZLÍK** Member of Parliament (*HZDS*), Chairman of the Council for Economic Development of Slovakia; Former Deputy Prime Minister/Minister of Finance.	**19.7.2001**

* Note: telephone interview

APPENDIX A3 – QUESTIONNAIRE

Case Studies: Scotland and Slovakia

Questions

A. Institution itself (identification)

Basic info:	legal form, structure and management, staff power, budget (revenues and expenditure), date and background of establishment, previous history?
Comments:	advantages/disadvantages of such institutional setting, what future changes expected, what challenges ahead?

B. Policies of the institution

Basic info:	**mission** of the institution (legal responsibilities /chart); how much autonomy in shaping the mission; how the mission relates to other organisations and institutions in the region/country
	what **strategies** are pursued to fulfil the mission; who defines; who approves; who is responsible for implementation; input of other institutions?
	detailed **policies** of the institution (vis-à-vis the strategy); exactly what policies/projects are pursued; how they are implemented; size of budget for individual policies/projects; what exactly is financed; what conditions; target groups?
Comments:	How 'your' policies **differ** from previous one(s) / policies of other institutions?; **evaluation** of the policy outcomes?; mission/strategy/policies **revision**?; good points/challenges of current mission/strategy/policies?; **future changes** expected?; **improvements** proposed (in your view)?

C. Relations with other institutions within/outside region

Basic info:	**formal and informal** relationships (regulated by law/contracts/...?); **subject/quality/frequency and degree** of these relationships?; **dynamics** of these relationships?; **changes expected** in a future?
Comments:	**good points/challenges** of current relationships (in your view)?; **future changes** expected (+your comments); What should be **improved** (in your view)?

D. Strategic knowledge and learning of the organisation

Basic info:	sources of **strategic knowledge** of your organisation for design of policies (internal/external; consultants/think-tanks...?); **Monitoring of economic situation/trends** in your *region*: internally/externally?; **Monitoring of situation/trends** in *European/World economy*: internally/externally?
Your comments:	

E. Past, present and future of your region / Any other important business

Discussion:	what are the **weaknesses and strong points** in economic development of your region?; How the **knowledge-driven agenda** will help your region?; How do you see the **future of the region**?; What **should be done** in your view? What general or specific policies / actions / arrangement?; Any other important business?
	DOCUMENTATION...? / Further CONTACTS...?

Contact:

C·U·R·D·S CENTRE FOR URBAN & REGIONAL DEVELOPMENT STUDIES

Martin SOKOL, Centre for Urban and Regional Development Studies (CURDS), University of Newcastle upon Tyne, NE1 7RU, England. Tel: 00-44-191-222 8510;
Fax: 00-44-191-232 9259; http://www.ncl.ac.uk/curds/
E-mail: Martin.Sokol@ncl.ac.uk

APPENDIX A4 – LIST OF ABBREVIATIONS

BAZ	Bratislava Automotive Plant
BIC	Business and Innovation Centre
CBC	Cross-Border Co-operation
CBI	Confederation of British Industry
CEECs	Central and Eastern European Countries
CMEA	Council for Mutual Economic Assistance
CPU	Central PHARE Unit (Slovakia)
CSŠ	Centre for Strategic Studies (Slovakia)
EC	European Commission
ECU	European Currency Unit (now Euro)
EU	European Union
EUR	Euro (currency)
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GNP	Gross National Product
GO SR	Government Office of the Slovak Republic (ÚV SR)
HIE	Highlands and Islands Enterprise (Scotland)
HZDS	Movement for Democratic Slovakia
ICT	Information and communication technology
IMF	International Monetary Fund
INTERREG	EU cross-border co-operation programme
IS	Information society
IT	Information technology
KE	Knowledge economy
KOZ SR	Confederation of Trade Unions of the Slovak Republic
KSČ	Communist Party of Czecho-Slovakia
KSS	Communist Party of Slovakia
LE	Learning economy
LEC	Local Enterprise Council (Scotland)
LFRs	Less-favoured regions
LIS	Locate in Scotland

LR	Learning region
M.E.S.A.10	Think-tank (Slovakia)
MECU	Million ECU
MH SR	Ministry of Economy of the Slovak Republic
MNC	Multi-national company
MSP	Member of Scottish Parliament
MVaRR SR	Slovak Ministry of Construction and Regional Development
NARD	National Agency for Regional Development (Slovakia)
NASRMSP	National Agency for Development of Small and Medium Enterprises (Slovakia)
NATO	North Atlantic Treaty Organisation
NBS	National Bank of Slovakia
NEZES	Independent Association of the Economists of Slovakia
OECD	Organisation for Economic Co-operation and Development
PHARE CBC	PHARE Cross-Border Co-operation
PHARE	Initially 'Poland, Hungary - Aid for Reconstruction of Economy', the main financial instrument of the EU assistance to all CEEC candidates in 1990s
PIS	Post-industrial society
PMU	Programme Management Unit (PHARE programme)
PPP	Purchasing Power Parity
PPS	Purchasing Power Standards
R&D	Research and development
RDA	Regional development agency
RPIC	Regional Advisory and Information Centre (Slovakia)
RSA	Regional Selective Assistance (UK)
SARC	Centre for Development, Science and Technology (Slovakia)
SARIO	Slovak Agency for Development of Investment and Trade
SCDI	Scottish Council Development and Industry
SDA	Scottish Development Agency
SDI	Scottish Development International
SDK	Slovak Democratic Coalition
SDĽ	Democratic Leftwing Party (Slovakia)
SE	Scottish Enterprise

SEN	Scottish Enterprise Network/National
SFE	Scottish Financial Enterprise
Sk	Slovak Koruna (currency)
SMEs	Small and Medium Enterprises
SNAZIR	Slovak National Agency for Foreign Investment and Development
SNDC	Scottish National Development Council
SNP	Scottish National Party
SNS	Slovak National Party
SOP	Party of Civic Understanding (Slovakia)
SR	Slovak Republic
STUC	Scottish Trade Union Congress
ŠÚ SR	Statistical Office of the Slovak Republic
UK	United Kingdom
USA	United States of America
USD	US dollars
ÚSRSVT SR	Office for the Strategy of Development of Society, Science and Technology of the Slovak Republic
ÚV SR	Government Office of the Slovak Republic
VW	Volkswagen