Core Cities: Key Centres for Regeneration

Final Report

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# 1.	Introduction

Britain's major cities face a number of problems and challenges. Policy in recent years has tended to treat these problems as highly localised (as in inner areas) or as narrow vertical concerns (such as education). It is our view that this has obscured many of the real problems of the city, which need to be examined at the level of the city-region. We argue that unless policy is developed at the city-region level then the provincial cities of Britain cannot be expected to play the role they should play as regional economic motors, and Britain as a whole will continue to suffer from economic under-performance and social polarisation.

The report which follows was commissioned by the Core City Group within a study to examine the interaction between cities and their regions as a way to understand what roles the core cities play in their regions and how the strengths and weaknesses of the cities affect processes of regional competitiveness and social cohesion in the UK. The focus of the study is on the largest English cities, other than London, and also recognises a distinct regional dimension in that most of these cities lie within regions that are economically ailing. We focus on five key challenges to be met by the cities and by national policy if the problems of the cities and the regions are to be effectively addressed.

This report shares the vision of the Core Cities Group that the major cities in the UK have an important role to play in national and regional life. We feel that the roles played by these cities in their regions are critical to regional competitiveness, but that this fact is poorly understood within government. Structures of governance, funding frameworks and national policy regimes have restricted the potential of UK cities to 'punch their weight' relative to comparator cities in other European countries.

Section 2 of the report provides a theoretical background to the concept of the city-region as a geographical area comprising a central city with a hinterland of urban and rural areas. This section sets out the concept of the city region as a foundation for analysis of the dynamics of city economies, and as a basic unit for developing city strategies. A key to understanding the role of core cities is that they and their regions are socially and economically interdependent.

We need to recognise that city-regions exist at different scales, of which those based on the core cities are among the UK's largest. Although our concern here is with a specific set of city-regions, many of the lessons learnt will be extendable to a much wider set of cities.

Section three of the report briefly sets out the main policy challenges faced by the Core Cities, placing this within the context of an overview of the role of city-regions in the construction of local competitive advantage within a context of globalisation and the knowledge economy.

The first challenge, addressed in section 4 is of competitiveness in a knowledge-based economy. Here we explore the dynamics of economic

development within core cities and their city-regions, the processes of agglomeration and inter-relationships that shape city performance, and the specific roles of the core city within these processes.

Within this framework we examine specific urban attributes and roles in their contribution to the competitiveness process, especially:

♦ the role of core cities as centres of knowledge based industry and R&D,

♦ cities as centres of learning,

♦ key sectoral dynamics, especially in terms of business services and manufacturing,

♦ the nature and role of urban property markets, and

♦ transport and communications linkages.

Section 5 addresses the second of our challenges, image and cosmopolitanism. We argue that core cities are the cosmopolitan centres for their regions, and that this cosmopolitanism is central to their success and key to the wider success of their regions. However, there are tensions between the development of this image and its role in attracting new investment into the city, and other images and identities within the city and city-region. The core cities are able to attract various cultural services as a result of their image, with some diversionary effects in the wider region, but with costs also. Nonetheless the regional benefits of an international profile for a core city are considerable.

The third challenge is social polarisation. It is clear that core cities carry a significant social burden for their regions in terms of their higher risks of social polarisation, homelessness, crime and racial conflict. Core cities are not always the most disadvantaged areas within city-regions, but together with other predominantly urban districts exhibit a scale of social disadvantage that is not seen in districts of mixed rural and smaller settlements. It is our view that the current dynamics of core cities and their city-regions are inexorably leading to greater polarisation in the core city areas, as city centres become interlinked centres of higher order business services and knowledge work with cultural and consumption activities aimed at the more affluent. Meanwhile the traditional manufacturing functions of the city are being pushed outwards, leaving fewer jobs for the less skilled and manual workers, resulting in high unemployment among these groups. Yet the affluence and critical mass of cities act as a magnet for the disadvantaged from all areas – the homeless, migrants, young unemployed etc. – as opportunities for marginal existence can be found in cities that do not exist in small towns. The anonymity and flexibility of the city is an attraction which leads to a further reinforcement of social polarisation. Faced with this, city authorities are legally obliged to provide support services which then underpin the attractiveness of the cities for these same groups. Section six deals with these issues.

Challenge four relates to sustainability. The core cities all face considerable environmental problems, both arising from the current concentration of polluting activities, especially due to car use, and from a legacy of industrialisation and abandonment of inner urban sites. The future sustainability of the UK depends upon the core cities taking a key

role in absorbing future housing and employment growth, whilst transferring more of the transport burden back onto public transport. Further moves towards a decentralised and car-based economy would work against both a policy of sustainability and against the revival of the cities: the linkage is clear.

The final challenge is one of governance and arises from the difficulties of meeting the previous challenges across a fragmented city-region. Not only is there a need to see joined-up governance across the different policy domains outlined above, but also a need to ensure that the different areas within a core city-region are linked and integrated within a holistic and unified strategy.

The final section of the report examines the roles potentially to be played by core cities within their city-regions and within the UK as a whole, with a focus on the limitations and barriers arising from the UK system of local governance and government.

2.   City-Regions

2.1   The Concept of the City-Region

Urbanisation is one of the most established characteristics of modern societies. The European city-states of the 16th and 17th centuries act as templates for the idea of the modern city. Modern life is now largely urban, with 80% of the EU population living in towns and cities. Yet our main understanding of what a city is comes from the monocentric or compact city form. With increasing levels of urban population, different forms and concepts are emerging and it is important to understand the dynamics of city economies in this wider context.

Such an understanding can be achieved through the concept of the city-region. Put simply, this can be understood as a functionally inter-related geographical area comprising a central, or core, city with a hinterland of smaller urban centres and rural hinterlands. A key to understanding the role of core cities is that they and their regions are socially and economically interdependent.

The concept of the city-region embraces a variety of potential inter-connections between core cities and their hinterlands: social, economic, and environmental. These inter-connections are underpinned by factors which change over time and reflect the dominant social and economic form of a society. In modern Europe the key linkages within city-regions include commuter patterns, common language use, and natural features such as watersheds. In the UK the term functional urban region (FUR) was developed in the late 1970s as a variant of the city-region concept.

Urban area   Core city centre

Secondary city/town centre
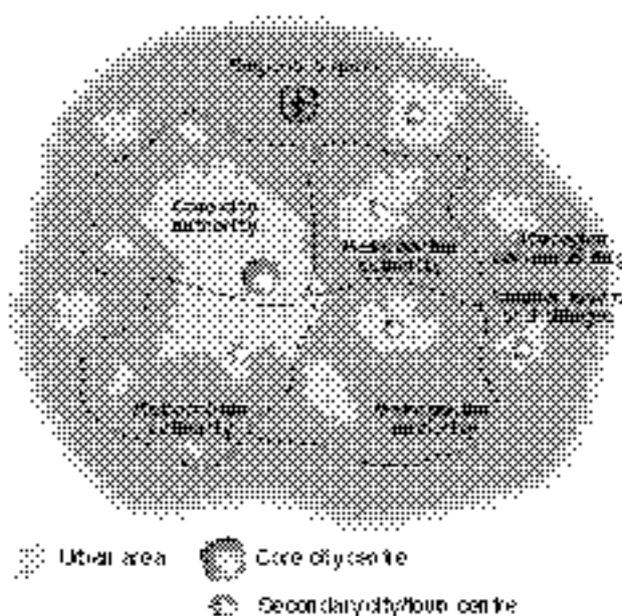
On a European scale Hall and Hay (1980) were among the first to undertake comparative analysis on the basis of defined functional urban regions.

'Working from the basic idea that a national territory is composed of a set of contiguous functional regions, the urban region is defined as having a core containing a minimum level of population or workplaces, and one or several peripheral fringes or rings that differ from the core by the density and number of workplaces and by the length of home-work commuting journeys.' (ESDP, 1997)

Such city-region definitions have considerable advantages over local authority boundaries when it come to understanding the dynamics of cities. Local authorities or municipalities are often shaped by historical and in some cases anachronistic factors which limit their scale. As a result core cities are only a small part of their wider city-regions, and as such represent only a part of a complex system. The evolution of local government rarely reflects the pace of evolution of the inter-relationships between areas, especially the growing influence of core cities over larger territories. The boundaries of the seven Core Cities here are as a consequence varied in their scope. Leeds has a very extensive local authority area including a substantial hinterland whereas Newcastle and Manchester by comparison are much more tightly defined with other districts reaching very close into the centre of the city. In such situations to define a city by its local authority area only is plainly a nonsense.

In terms of this report then, the city-region acts as the foundation for analysing the dynamics of city economies, and is seen here as the functionally coherent unit for developing city economic development strategies.

Map1: The core cities and their city-regions
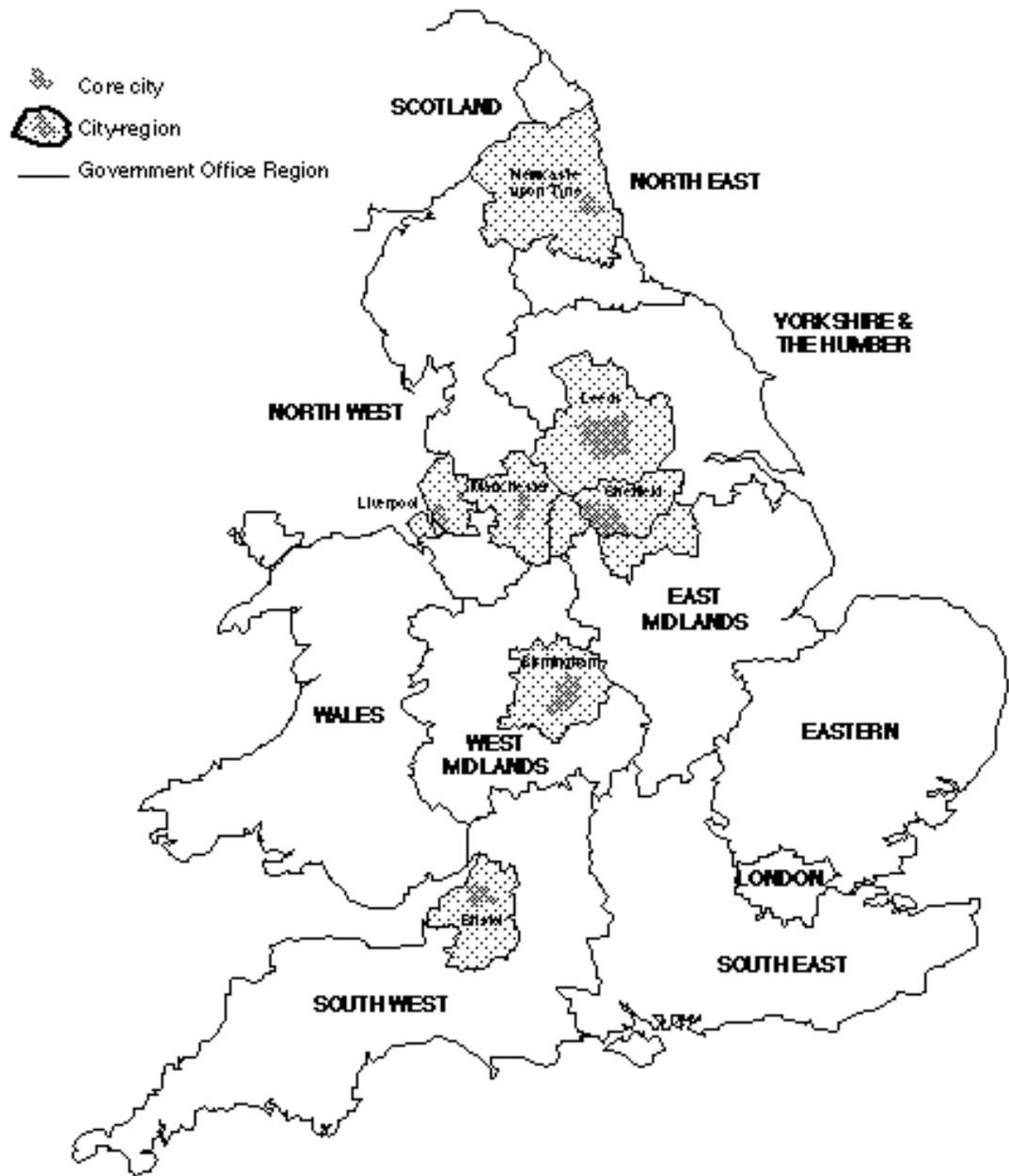
2.2   Historical development of city-regions

City-regions are receiving growing policy attention as a result of current trends towards the both the globalisation and the localisation of economies. However, a historical perspective would suggest that in many countries city-regions have always been an important element of economic and social development and also of governance structures. The history of Europe until relatively recent times has been a history of city states, whether the ancient Greek polis, or the mediaeval city states of Italy, Germany and the Netherlands. In these city states the 'city' encompassed not only a tightly defined defensible urban core but also a rural hinterland which serviced the city, even where the city economy was founded on trading and port functions (Hall, 1998).

The city-region is part of the evolution of urban forms which have emerged with the growth of industrial capitalism over the last two hundred years. Historical antecedents include the British 'industrial conurbation' (Geddes, 1915) and the largely car-based 'regional city' (Mumford, 1964) which emerged in the USA over the 20th century.

Building upon these nodal urban forms, more recent trends have pointed towards the emergence of polycentric or polynuclear urban forms and functional urban regions. Polycentrism can be defined as the presence within a region of more than one centre, with strong networks between them. Whilst more common in continental Europe, (for example the Flemish Diamond, the Rhine-Ruhr area and the Randstad) it does have resonance in areas such as Southern Lancashire where previously distinct towns have become highly integrated with each other as well as with the nearby core cities of Manchester and Liverpool.

Polycentric urban forms are associated with the emergence of the post-industrial city. As manufacturing activity becomes a less significant component of the employment and productive base of western cities, new urban forms emerge. The post-industrial polycentric city contains multiple centres for employment, services and residential locations. However, in contrast to the city-region, polycentric urban regions may not necessarily be functionally inter-related units. Polycentrism can develop to such an extent that urban fragmentation occurs. In the USA, widespread decentralisation of economic activity and people has led to what have been termed 'edge cities' which some argue will lead to the dissolution of metropolitan cores (Garreau, 1991), with associated problems such as the functional monotony and sameness of small suburban centres. Others have pointed to the intensification and extensive growth of urbanisation and the emergence of the very broad urban field and the megalopolis rather than the city.

To summarise: there is an open debate about the more likely future development of urban systems in modern economies – but there is an effective consensus that successful cities adapt to changing forms of interdependence between themselves and their city-regions, and so remain vital to the future success of their national economies.

2.3   Core cities and their city-regions in Europe

2.3.1   Trends in the European urban system

A number of trends are evident within the European urban system such as increasing integration of the system of European cities, the emergence of clusters of cities, the reshaping of the economic potential of cities, the continued expansion of cities, growing social segregation and the declining quality of urban life. Healey et al. as part of evolving work for the ESDP have provided a more detailed examination of transformations in urban forms, identifying a number of spatial trends in national and European city-systems. These include

1. long-term adjustments in core-periphery relationships;

2. tendencies towards formation and dispersal of boundaries;

3. the emergence of functional interdependencies between transnational nodes/regions;

4. processes associated with globalisation creating new locational advantages and the potential for sustainable forms of development;

5. demographic and socio-cultural evolution – leading to changes in household structures, lifestyles, and attitudes towards the city and locality;

6. technological developments – reinforcing core and peripheries;

7. changing patterns in environmental risk and pollution and societal attitudes to the environment; and

8. evolving forms of governance and collective/civic identity.

Territorial disparities and spatial imbalances have been a longstanding feature of the EU and have been well documented (Europe 2000, Europe 2000+). Within the European territory, there is evidence of a 'two-speed' society, especially at the level of the city-region. Regions can either enter into an upward or downward cycle of growth relative to the European average. For example, whilst some regions face problems of migration and loss of skilled labour, others have high and growing populations and high levels of in-migration.

The major European Union response to such developments is the European Spatial Development Perspective which focuses upon the need for urban complementarity.

> The interaction between the city and its hinterland has to be rethought, unnecessary urban sprawl contained and a new relationship between cities and rural areas has to be defined. Well-tailored responses should help diversifying rural economies now confronted with new challenges. This also implies the development of new and higher functions in the cities that are the weaker nodes of the European network. (ESDP, 1997, 46)

> Regions as a whole can become competitive only if their towns and cities are motors of economic growth. The competition in which they engage now takes place in an economy which is becoming increasingly global and liberalised. This competition could result in a polarisation between successful cities and less successful ones, which would not be remedied by co-operation alone. It also requires the internal development of those cities which are less well prepared for dealing with this new challenge. (ESDP, 1997, 48).

Some European cities (London, Paris, Amsterdam) have become connected to a global system of major cities and function as high technology industrial or service centres or head quarter locations connected to high speed communication and transport corridors. Others

display high levels of intra-European networking and have developed specialised functions for European and national markets, whilst others face problems of peripherality and poor connections and the need to modernise and restructure their economic infrastructures. What is clear is that certain cities are able to adapt to changing circumstances and become competitive within the European urban hierarchy:

> The rapidity of technological, political, social and economic change is bringing about a change of orientation in the hierarchical functional relationships of this urban system. Whereas these relationships have been the result of the development of national territories, they are now adapting to the new more competitive demands and challenges of the European Territory, the opening up of middle and eastern Europe and to globalisation. Barcelona was a major regional centre in Spain; it is now an emerging metropolis in southern Europe. Lille was a regional centre in the periphery of France; it is now emerging as a major node in the development corridor between the British Isles and continental Europe. (ESDP, 1997, 19).

The task of the Core Cities is to establish themselves as competitive urban centres within this emerging European urban system.

2.3.2 Categorising cities in Europe

It is also important to recognise the different city systems which co-exist at a European level. Broadly speaking, each European state contains cities which undertake international, national or regional functions. The European urban system contains several different city system types.

- The Paris/London model is founded on centre-hinterland dependency.
- The Rhenish model comprises a large number of major urban centres of relatively similar size with smaller areas of influence. Within this model, large cities can develop international standing based upon functional specialisation in one area as is evident with Frankfurt, Antwerp, Amsterdam, Cologne, and Zurich.
- There remain a number of diverse but peripheral regional metropolises which can provide high level services due to their remoteness from the national capital.
- Finally there are other regional capitals within a national territory which display low levels of networking on a European level (e.g. Palermo).

A number of studies have attempted to categorise cities using a variety of economic and social indicators, with an emphasis on the internationalisation and specialisation of the city. Two approaches with the benefits of a comprehensive approach and a classification framework are the RECLUS study (Brunet, 1989) and the Equipe PARIS (1993) study.

The RECLUS study developed a set of 8 classes of city determined by a numeric value in which the top 3 categories comprised major international cities ranging from London (with the highest score) to Amsterdam, and

including some non-capital cities such as Milan, Munich and Barcelona. The Core City Group were scattered across the remaining categories.

♦ Manchester in class 4 with Berlin, Copenhagen, Athens and Lyons
♦ Birmingham in class 5 with Lisbon, Glasgow, Duesseldorf, Marseilles
♦ Bristol and Leeds in class 6 with Dublin, Oporto, Hanover and Essen
♦ Liverpool and Newcastle in class 7 with Malaga, Dortmund, Nancy and Palma
♦ Sheffield in class 8 with Duisberg, Alicante and Cannes

The Equipe PARIS study plotted cities onto a matrix representing the type of metropolitan area and categories representing the basis of urban attraction. The city types were:

A. Dominant international metropolis

B. International metropolis with specialised functions

C. International metropolis with incomplete range of functions

D. Regional metropolis with strong international orientation

E. National metropolis moving towards internationalisation

F. Isolated national metropolis

G. Regional peripheral metropolis with weak international orientation

H. Regional metropolis with weak international orientation and highly specialised

Three of the core cities were classified in D as regional metropolises with strong international orientation, with Bristol characterised also as having a specialised economic base, whilst Manchester and Birmingham were characterised as having a weak tertiary sector and poor quality of life. Newcastle and Leeds had similar characterisation and were in groups G and H respectively. Sheffield was omitted from the listing.

What does this tell us? Compared with other European cities of a similar scale, the UK Core Cities tend to be less international in scope (not all of the international cities were capitals), and tended to be economically specialised and weak in services. Since the time of this survey the specialisation indicator may be expected to have changed somewhat, especially given the rise of financial and business services, and also leisure and tourism, in the last few years. But they are still likely to lag on multinational headquarters, international institutions, and even on national level institutions. They also tend to lag on R&D as an indicator of innovation.

Such categorisations by various indicators are of course notoriously crude and can give very misleading impressions depending on the choice of indicators and their weighting. However they do point to certain issues to be investigated further in terms of the differences between the core city group and similar sized provincial cities in other European countries.

3. The challenges facing the core cities and their regions

Competition and competitiveness are growing in importance as policy concerns among European cities. Cities compete in the sense that they engage in rivalry in creating or attracting activities that generate wealth for their citizens (Jensen-Butler, 1997, 3). This ability to provide the wherewithal to be successful in these terms is commonly described by the concept of competitiveness.

We define territorial/place competitiveness as the ability of places to add value to the activity of business through the interaction of a set of framework conditions (such as wage costs, the quality of labour, infrastructure endowment, etc), with a set of inter-business and local institutional relations, in such a way that business can become more successful against international competition. But, in addition, in order to be reproducible in the longer term, the benefits of wealth generation must be redistributed within the region to enhance social equity and quality of life without compromising sustainability.

Competitiveness is likely to emerge as an outcome of both regional and city level processes and attributes. Framework conditions may be set largely at a regional level in terms of wage costs, or of regional position determining property costs, although with overlays of high quality service availability in some urban areas such as for specialist telecommunications. Business clustering and consequent benefits from supply chains and inter-firm learning are also often regional in nature, although the concentration of service and strategic functions in cities both lends them special status and ties them inextricably to their regions. Moreover, in the international sphere cities have traditionally performed the role of organising node for both formal institutions of government and business associations but also informal networks whether based in business or leisure activities. Cities thus play a key role with respect to the competitiveness of the broader regions within which they are situated.

The competition between city-regions is also increasing. Production systems are becoming more international, flexible and footloose as a consequence of the development of ICTs, globalisation is leading to the decoupling of some cities from their national economies, the development of a single market is based on comparative and competitive advantage and hence specialisation, place specific advantages are being created on the basis of innovation and pools of skilled labour, different institutional cultural environments offer subtle distinctions in operating environment, and new infrastructures and gateway functions are developing. In all these areas cities offer the opportunity for differentiation and hence produce a multi-layered and complex mosaic of competitive factors in the winning of investment.

Cities play a crucial role in the development of their region. The open and globalised nature of economic activity encourages competition between places to secure local competitive advantage. Increasingly, achieving such

local competitive advantage is based upon the ability to access and generate knowledge. Of particular importance to securing competitive advantage is access to knowledge networks. Many examples exist, such as the Third Italy, where certain institutional frameworks and cultural values have acted as engines for economic and social development. The 'Foundation Europe of Cultures 2002' has created a 'EuroCultures' model which suggests that there is a strong relationship between cultural values (such as trust, civic morality, tolerance) and economic achievements and that cultural diversity is an asset which enhances innovation, economic growth and job creation. The city-region is a useful framework for observing the role of cultural values and institutions and their effect on competitiveness. In sum, a fair, equitable and tolerant city-region is likely to be an economically prosperous city-region.

At the heart of this model of competitiveness is the question of business performance, drawing on our discussion of the cluster-based advantages realised for various manufacturing and service sectors. Our emphasis is not on the performance of the individual firm, although much public support goes into assisting individual firms. Rather the emphasis should be on the competitiveness of the sector or cluster. Firms may come and go, but if an industry remains, creates employment and generates increasing value added, the city will prosper.

The performance of business will be enhanced by the knowledge base of the city, its knowledge infrastructure and the institutions and conventions that support interaction and collective learning. An policy to promote urban competitiveness must focus on rebuilding the learning dynamic in the cities, and much of this relates to research and development, institutional development and inter-firm networking. Individual learning and training is important, but is not sufficient, and much more needs to be done to stimulate the demand for learning at all levels and in all aspects of urban society. *This is the first challenge – achieving competitiveness in a knowledge-based economy*

In understanding the special contribution of a city to its region, one important aspect is its cosmopolitan nature. Cities are in essence places where different groups of people meet and mingle: people of different classes, different occupations, different cultures and different races. Such co-mingling contributes to the cosmopolitan nature of the city and to innovation. Cosmopolitan cities are also centres of cultural consumption, and the mix of cultures leads to opportunities for great diversity. In the UK, cities tend to have a negative image however, even if more cosmopolitan than their surroundings, and this contributes to the exodus of middle class families and possibly also to their lack of competitiveness in attracting certain kinds of investment. *This then is the second challenge – of cosmopolitanism and image*.

Competitiveness also depends on the question of redistribution. The business of a city can generate wealth underpinned by a favourable environment, but unless that wealth is distributed in a way that is broadly equitable the social tensions of the city threaten to erode the qualities that make it attractive. Success breeds polarisation, and has probably always

done so. The way in which the negative consequences of success are managed within the city, such that whole communities are not trapped and stigmatised is a condition for long term success. *This is the third challenge – social polarisation.*

Despite a variety of measures undertaken in major urban areas to tackle the environmental problems of noise, air pollution, water pollution, traffic congestion and water consumption, there is little evidence yet that of sufficient progress to ensure longer-term sustainable urban development. The negative effects of these environmental problems extend from their impacts on the quality of life and human health to the economic viability of the cities: polluted cities are unattractive to mobile people and investors, and the costs of coping with the problems can take a heavy toll on municipal financial resources. *This is the fourth challenge – sustainability.*

Finally there is the problem of the governance of the city and its region. The English city-regions are fragmented between local authorities, with the core city having to carry significant costs of its regional role without an adequate tax base. Co-ordination between elements of the city-region has been limited or non-existent, and new governance structures such as regional development agencies overlay city-regions and in at least two cases separate parts of the hinterlands from their core cities. Central government relations with urban areas tend not to differentiate between the roles and responsibilities of core cities, and the regional dimension is absent from urban policy. *Governance is therefore the fifth challenge.*

Each of these five challenges need to be addressed at the level of the city-region – policy on each will have city-region wide consequences, and without a holistic and integrated approach the potential for success will be limited.

4. City-regions and competitiveness in the knowledge-based economy

4.1 Core cities as centres of knowledge and learning

Much has been made recently of the move to a knowledge or information-based economy. Many commentators (Florida, 1995; Lundvall, 1992; Knight, 1995 etc.) have focused on the role of successful cities as pools of knowledge, where technological spillovers occur and where business can benefit from place-specific tacit knowledge. Knight argues that cities are the places where knowledge as a 'strategic resource' is created and achieved, and indeed throughout history cities have tended to be the focus for knowledge activities whether in the form of universities, entrepreneurial networks or the knowledge centres of firms.

Because of the high concentration of higher education and public institutions in major cities, they can be considered as knowledge centres, but we need to view knowledge more broadly than in terms which only refer to science and technology and their application to manufacturing.

Knowledge may also be considered with regard to other industries such as financial and business services, retail, tourism, cultural industries and media. The continued success of a city depends on the strengthening of the knowledge base for all dynamic growth industries, whether they are manufacturing or service, addressing local or national/international markets. What is relatively under-researched in general is the way in which local service provision and external markets are linked in the generation of knowledge assets - can cities within weakening regions contrive to pull away from their local base or does the move to export orientation face diminishing returns? And to what extent and in what ways does a region benefit from having located within it a centre of knowledge generation if that knowledge is increasingly externally oriented?

Another key issue in the vitality of the knowledge base is the ability of a city to attract mobile knowledge workers. The success of a city depends on its people and successful cities will attract talented and creative people. Quality of life is often cited as a factor in competitiveness (Rogerson, 1999) but we would argue it plays a marginal role in the location decisions of individuals. However, people do choose between work opportunities and here cities are in competition, and increasingly at a European level. Linked to this are the connections between such cities - road, rail and air. Again, cities tend to be the main hubs for such networks but success depends also on the volume of traffic generated by the wider region, and this relates to the attractiveness of the city and region for those individuals that generate business traffic.

Current economic development theory on knowledge and territorial competitiveness stresses the interaction between access to global sources

of knowledge (often represented as "best practice") and localised knowledge arising from the concentration of sectorally or cluster specific tacit knowledge. Such local knowledge is developed and shared within a socialised process involving groups of knowledgeable workers learning-by-doing, moving between firms, and learning through firm-to-firm interactions (Lundvall, 1992). The local specificity of the knowledge and associated customs and practices does not mean it is parochial however, as the cases of Silicon Valley and other high technology complexes demonstrate (Saxenian, 1994). Indeed it is the ability to derive global advantage from highly localised knowledge that is the cornerstone of competitiveness (Scott, 1988). Sustaining such competitiveness implies that the city or region should be aware of the need to modify behaviour to retain advantage – a process termed reflexivity. As one leading theorist puts it:

> 'Cities thus contain communities of reflexivity workers who insert geographically generic skills into geographically (and otherwise) specific conventional and relational contexts, such that they are made effective under conditions of uncertainty. These groups of actors engage in a kind of cognitive "translation" between geographical levels: national-regional, national-international, and city-regional hinterland' (Storper, 1997, 248

Given the needs for scale of expertise and knowledge, for dense interactions between firms and their supply chains, the need for knowledge infrastructure such as universities, research centres, and the need for connectivity, whether by ICTs or air transport, cities are the logical places where knowledge-based clusters of expertise can emerge. But only some cities are successful in creating and then combining the mix of assets in a way that creates a growth dynamic.

How do the core cities compare with these ideal models? To what extent do they have the right kinds of assets even?

4.1.1 Knowledge work

At the core of the concept of the knowledge-based economy are those activities which are highly intensive employers of knowledge workers: the symbolic analysts as Robert Reich describes them (Reich 1990). Typically in the past studies have been undertaken of the distribution of high technology manufacturing jobs, although these are numerically quite small and there are considerable conceptual difficulties as many high technology products are manufactured by relatively low skilled workers, whilst there are knowledge based activities in so-called low technology industries. By contrast the growing knowledge-based service sectors are more internally homogeneous, and represent genuine concentrations of knowledge workers, usually highly graduate-based, and with an important role in supporting and encouraging innovation in other sectors also.

We have therefore developed a Knowledge Intensive Services (KIS) indicator which incorporates a group of service sectors which are either heavily professionalised or dependent on applications of advanced

technologies. In this we exclude mass consumer services such as high street banking or call centres, focusing on sectors such as legal services, software, R&D, media, advertising and consultancy.

Using this group of services we can see that the core cities are generally good performers with location quotients in excess of 1 and with Bristol, Birmingham and Leeds seeing significant growth during the early 1990s (Table 4.1a). Birmingham is the biggest centre and shows the greatest absolute and relative growth, whilst Bristol is the most specialised in these sectors. It should be borne in mind that these location quotients are heavily influenced by the massive concentration of such jobs in London and the South East, so all scores of over 1 are relatively good performances. In addition, all of the core cities exhibit a relative concentration of these activities relative to their city regions, especially Newcastle and Manchester.

Table 4.1a: Knowledge intensive services for the Core Cities, 1991-1996

	1991	**1996**	**Change**	**LQ 1996**	**City in Region LQ**
Bristol	43000	47800	11%	1.88	1.37
Birmingham	55800	70900	27%	1.27	1.37
Leeds	38500	46400	21%	1.11	1.33
Liverpool	24000	22200	-8%	1.04	1.34
Manchester	45800	42500	-7%	1.42	1.57
Newcastle upon Tyne	21700	19600	-10%	1.05	1.81
Sheffield	19700	20400	4%	0.82	1.20

Table 4.1b: Knowledge intensive services for the Core Cities and their city-regions, Change 1991-1996 and 1996 location quotients

	Core city		**Hinterland**		**City region**	
	Change	**LQ 1996**	**Change**	**LQ 1996**	**Change**	**LQ 1996**
Bristol	11%	1.88	24%	1.13	18%	1.37
Birmingham	27%	1.27	30%	0.72	28%	0.93
Leeds	21%	1.11	13%	0.69	17%	0.84
Liverpool	-8%	1.04	3%	0.64	-2%	0.77
Manchester	-7%	1.42	25%	0.76	11%	0.90
Newcastle upon Tyne	-10%	1.05	-13%	0.42	-11%	0.58
Sheffield	4%	0.82	3%	0.63	3%	0.68
Great Britain			15%			

Source Annual Employment Survey

Comparing the core cities with their hinterlands and regions (Table 4.1b) a more complex picture appears. Although all core cities are more specialised in these activities than their hinterland, in Bristol's case the hinterland is itself a better performer than some of the other core cities with a location quotient of 1.13. This illustrates a 'Southern' effect in

which Bristol can be seen to share in the London overspill effects of the wider South East with extensive service employment in semi-rural areas. Bristol also shares with Birmingham, Manchester and Liverpool a tendency for growth to be faster in the hinterland of the city-region than in the core city itself. In the case of Manchester strong outer growth is combined with decline in the core city as a consequence of the tight city boundary and the release of large areas of office development land in areas such as Trafford. Liverpool also sees city decline and outer area growth, although this appears to be a consequence of modest relative shift against an overall pattern of decline.

Two cities show a continued growth in the core with slower growth in the hinterland: Leeds and Sheffield. In the case of Leeds there is a strong growth dynamic which is partly a consequence of concentration within its region, and part a result of cluster synergies and competition on a sub-national level. Sheffield has a much more sluggish urban economy as the decline in manufacturing has not been replaced by a high level service complex. In both cases there is a poorer performance in the surrounding districts as the core city districts are themselves quite extensive and many of the surrounding areas are marked by severe industrial decline and are less attractive to knowledge-based services than the core cities.

Finally Newcastle stands out in terms of the overall decline in both core and hinterland, although the core city is declining slower and has a much higher location quotient. This is again illustrative of the structural weakness of the North East region as a whole, with the core city providing the only serious location for such knowledge based services within the region. The peripherality of the North East within England presents special difficulties, but it is clear that an economic development strategy for this region must build upon the service function of Newcastle.

4.1.2   Research and development

A particular form of knowledge based service within the above analysis is research and development, and this is a key indicator of innovative capacity in an area. Statistics on the location of R&D have been traditionally problematic and employment based estimates tend to understate that employment linked to production sites. Recent ONS publications of R&D indicators based on expenditure restrict analysis to the new English regions only, so up-to-date information on the R&D intensity of the core city-regions is not available, but county level data was produced for the report of 1995.

This shows that many of the former metropolitan counties which form the basis of the core city-regions, had a relatively poor performance on R&D, although other parts of their standard regions performed even worse. Overall R&D performance in the UK is heavily shaped by investment by government R&D facilities and by relatively few major corporations (Glaxo-Wellcome accounts for over 10% of UK private sector R&D for example) and much of this is concentrated in the South East. Many of these decisions were essentially made in the immediate post-war period, and in some cases even before, and analysis by Carole Heim of records of

that time revealed a reluctance by government to insist on a policy of dispersion to the core cities and other locations outside the South East. The legacy is a weakened knowledge base in the core cities at a time in which they need to compete with European cities in which government has encouraged R&D investment.

Despite this there are some important R&D centres in the core cities – in Bristol, BAe and Hewlett Packard; in Birmingham, Rover; in Manchester, ICL; and in Liverpool, GPT.

4.1.3   Higher education

The universities by contrast are much more equitably distributed, and the core cities have a significant share of UK higher education. Just taking employment in higher and further education, the core cities all have high location quotients, representing a specialisation or concentration in such activities. Liverpool, Manchester, Newcastle and Sheffield have between two and three times as many jobs in HE and FE as their population would suggest. Even the city-region hinterlands are in many cases well represented and so the location quotients for the city-regions as whole are above average with two exceptions; Birmingham and Manchester (but only just).

Table 4.2: Employment in Higher and Further Education by City, City-Region, and LQ (1996)

	Employment			LQ		
	City	Hinterland	Region	City	Hinterland	Region
Birmingham	12,000	7,500	19,500	1.42	0.53	0.86
Bristol	6,100	7,700	13,800	1.60	0.93	1.14
Leeds	10,400	14,800	25,200	1.65	1.23	1.38
Liverpool	8,100	3,100	11,200	2.52	0.48	1.16
Manchester	11,900	8,500	20,400	2.63	0.53	0.99
Newcastle-upon-Tyne	8,500	8,000	16,500	3.02	1.00	1.52
Sheffield	8,200	12,100	20,400	2.19	1.36	1.61
Great Britain	418,400			1.00	1.00	1.00

Source Annual Employment Survey

However whilst the Core Cities do well in terms of university employment, their research activity is slightly less successful. Table 4.3 shows the contract research income for the universities in the city-regions, totalling almost 24% of the UK figure. This total for all the core cities should however be compared with that for London (without consideration of whether Guildford or Reading is in the city-region) which has a research contract income total of £435 million or 26.5% of the UK total. Indeed none of the core city-regions can match either of London's top two colleges on their own on this indicator – University College London on £97 million and Imperial College on £80 million. Oxford and Cambridge also achieve around £100 million in contract research income each.

Table 4.3: University Contract Research Income by City 1996/97

City-Region	Universities	Research Income	%UK total
Birmingham	Birmingham, Aston Central England, Wolverhampton	50469	3.1%
Bristol	Bristol, West of England, Bath	56592	3.4%
Leeds	Leeds, Leeds Met, York, Bradford, Huddersfield	75417	4.6%
Liverpool	Liverpool, Liverpool John Moores	35590	2.2%
Manchester	Manchester, Manchester Met, UMIST, Salford	77537	4.7%
Newcastle-upon-Tyne	Newcastle, Northumbria, Sunderland, Durham	54114	3.3%
Sheffield	Sheffield, Sheffield Hallam	41097	2.5%
All core cities		390816	23.8%
UK		1642336	100%

Source Higher Education Statistics Agency

This overwhelming advantage in research resources, bolstered by long term investment in research infrastructure and the ability to attract high quality academics is revealed also in the outputs from research. A recent analysis of the production of scientific knowledge in European cities (Matthiessen and Schwatz, 1999), measured the publication of scientific papers by each city. Out of the 39 most significant cities (measured by publication, not city size) the core cities were all represented except Newcastle, although all except Birmingham were combined with another city in the definition of urban area used in the study. Manchester-Liverpool was tenth biggest by publications, followed by Sheffield-Leeds, Bristol-Cardiff and Birmingham (see table 4.4).[1]

Although the list includes some higher scoring small cities such as Oxford-Reading (8th), Cambridge(11th) and Mannheim-Heidelberg (21st), the performance of the core cities is respectable, ranking alongside Rome at 16th, Brussels-Antwerp at 23rd and Barcelona at 25th.

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[1] Newcastle was missing from this particular study as a consequence of its relative isolation from other major cities. It is likely that if each of the core cities were included individually, rather than as pairings, some others might not have made the top 39.

Table 4.4: Research centres in Europe, based on published papers, 1994-1996

Rank	City	Number of papers
1	London	64742
2	Paris	45752
3	Moscow	39903
4	Amsterdam-Hague-Rotterdam-Utrecht	36158
10	Manchester-Liverpool	18653
19	Sheffield -Leeds	13484
27	Bristol-Cardiff	10633
29	Birmingham	9882

Source: The Science Citation Index, analysis by Matthiessen and Schwartz, 1999.

Analysis of scientific papers inevitably reflects the strength of the universities in an area although other forms of public research centre or even large private sector basic research centres also publish in the scientific journals. Knowledge activities tend also to draw upon institutional infrastructures, where knowledge can be passed on, in addition to the universities. In the past many such institutions were concentrated in the core cities, especially the technical libraries, mechanics institutes and scientific associations that were so important to the spread of knowledge during the industrial revolution. Some relics of those days survive still in the form of the great civic libraries, the Literary and Philosophical Society in Newcastle etc. However, during the twentieth century the new knowledge infrastructures were concentrated away from the great provincial cities, notably in the outer South East. There have been a few exceptions such as the National Computing Centre in Manchester, but the reassertion of the dominance of London and the South East has been an inevitable consequence of the rise of state-sponsorship of knowledge infrastructures.

In this the UK stands apart from many other advanced economies where a more equitable distribution of knowledge infrastructure has been achieved. In Germany for example the much greater investment in state-backed R&D has been distributed across the major cities. The structure of co-funding between state and region has ensured that all regions have benefited from the location of Fraunhofer Institutes or Max Plank Institutes, usually with the added element of synergy between an institute and local industrial specialisations. This model of co-operation between national and regional scales is one which can be built upon in a number of policy areas.

4.2   Cities and business services

Within our classification of knowledge based activities certain forms of business service played a key role, and such services seem to typify he idea of a core city. For business services, there is a clear relationship

between the scale and external orientation of the service sector and the position of the city within global trading networks. So as the financial service industry has become a fully globalised system, spanning the major economies of the world, so an interlocking system of financial corporations and service industries has developed, with command and control centres in a small number of key global cities (Sassen, 1991, Castells, 1989). This global network has had profound implications for the growth of the financial and business service sectors, and for their patterns of locations across the hierarchy of cities in national economies.

The centralisation of control, unparalleled at this global level, has coincided with a spreading of telecoms technologies that maximises interactivity and contact. Although such technologies are used intensively for control purposes within the firm, and for commodity transactions, the centralisation of command functions shows a separate dynamic arising from the continued importance of face-to-face contact, of the building of trust, and securing deals. Indeed much of the research of the 1960s and 1970s on the communications advantages of large cities for office-based services still has strong relevance. Daniels in 1985 for example summarised the advantages of the city for office clustering as follows:

♦ Accessibility and proximity to customers
♦ Readily accessible inter-urban and international transport facilities
♦ A competitive market environment, maintaining the quality of services and providing the basis of exports elsewhere
♦ Availability of high quality telecommunications infrastructure
♦ High quality labour, especially that trained and experienced in business and financial skills
♦ Ample supplies of clerical and administrative workers
♦ Ample supply of quality office accommodation, increasingly offering 'smart' facilities, and in some cases a prestigious, highly visible site.
♦ High quality urban environment including cultural, social and shopping facilities.

To these traditional factors there are additional cluster benefits at the level of the main global centres, which relate more to the specifics of international trading of services and finance. The City of London can be seen as an archetypal global service cluster, spatial proximity reinforcing relationship building, ensuring fast communication in volatile markets, generating and disseminating 'collective beliefs, stories about what world production filières are like' (Amin and Thrift, 1994), and creating a point at which knowledge can be collected and new networks formed.

In such global cities as London the focus on the global therefore becomes dominant and can lead to a partial disconnection from the national territory. The needs of the domestic economy become secondary and require less sophisticated support. In addition given the very different economics of global cities in terms of land and factor costs only those activities that need to be in the core are retained there. Decentralisation of routine activities provides opportunities for regional cities which can therefore grow as 'command and control centres' for domestic economies - interlocked with global networks but with a main focus on servicing

local clients and branches of MNCs. In a sense this may seem like a reversal of history as provincial cities take back responsibility for regional markets from the national core service centre, but there is a difference from the hierarchical structures of the past.

Firstly, some new niches are opening up for national or international operations where presence in the global city is not necessary. In this sense regional cities have been able to develop specialist services that link into the global economy but can exist without the benefits of the cluster in the global city. By capturing these activities a city can build a unique set of advantages reinforcing its position in the national hierarchy relative to other cities. Some of these functions are routine activities specifically decentralised from London in the form of data centres or customer service centres, but in some cases the services relocated are strategic such as support for building society customers.

Secondly, and perhaps more significantly, the nature of change in ICTs and transport technologies has transformed the basis of regional markets. Where once most firms in a region looked to the regional centre for specialised services, now the more fragmented structures of multi-site firms maps unevenly on the urban system, and smaller firms may be prepared to look to neighbouring regions for services as accessibility increases. Fast journey times outside of cities coupled with congestion in the city itself evens out the benefits of proximity, whilst in many cases the customer now expects the service firm to do the travelling. If the service firm offices are control centres and touchdown points for an essentially car-borne field force then some cities may win a greater share of the market than their own region can provide.

Thus not only do cities continue to centralise services at the regional level, both agglomerating within the region and attracting the lion's share of relocation from London, but a successful service city can attract business and hence employment that relates to business in surrounding regions. A few leading cities therefore compete for the business in much larger and increasingly overlapping regions. Thus a historical pattern of hierarchical service territories focused on regional capitals is becoming replaced by a new variable geometry of cities which compete over the same ground on the basis of specialisation.

Related to the concentration of business services is the geography of headquarters locations in the UK. BWD Rensberg produce a quarterly review which provides financial details of all PLCs in the North and Midlands of England, and which are quoted on the London Stock Exchange Official List or the Alternative Investment Market (AIM).

Out of 459 PLCs in the North and Midlands, 174 or almost two fifths are located in post code districts that correspond to the 6 core cities covered by the data (Bristol firms are not included). Over 60% of PLCs are located in one of the six core city-regions. Not surprisingly Leeds and Birmingham, followed by Manchester are the city-regions with the most PLCs. This concentration of PLCs in Leeds and Birmingham is however greater than would be predicted from the size of their economies. With 78

PLCs each, both Birmingham and Leeds have more PLCs than Liverpool, Sheffield and Newcastle city-regions put together.

The relative dominance of Birmingham, Leeds and Manchester is further emphasised when the size of PLCs is considered. Of those with a market value of over £100 million, almost half (57 out of 116) are located in one of these three city regions and over half of those valued at over £1 billion. Interestingly Nottingham, Coventry, Leicester, Warrington and Derby have more PLCs with an estimated value of over $100 million than Sheffield or Liverpool.

The relationship of these headquarters with major business service companies is worth noting. The number of PLCs served by local legal or local accountancy practices has declined significantly as supra-regional legal practices and global accountancy practices have increased their market share. The vast majority of the PLCs located in the North and Midlands are now audited by the 'big five'. Most PLCs are serviced from practices located in either Leeds, Manchester or Birmingham. PWC and KPMG together serve over 60% of PLCs with a market value of over £100 million.

However we should note that this analysis only covers the North and Midlands, and that the overwhelming proportion of PLCs are headquartered in London and the South East, especially the larger multinationals. Whilst the core cities dominate the corporate geography outside of the South East, London dominates the UK absolutely and achieves a concentration of economic and financial power that is unparalleled anywhere else in Europe with only Paris as a near rival.

4.3   The continuing position of manufacturing

Analysis of supply chains as a foundation for the construction of regional advantage has a long intellectual history (dating back to regional economic growth models of the 1950s), however has had a more recent resurgence through the concept of clusters as promulgated by Michael Porter of Harvard Business School, and in other notions of the advantages of agglomeration and interaction developed by economic geographers. Some of these theories move beyond the immediate supply chain to consider so-called 'untraded interdependencies' in the form of knowledge spillovers and labour pool advantages, to which we will return in a later section, but for now we will focus on the nature of the supply chain and the potential interactions between the city and region in promoting competitiveness.

As noted earlier, we are considering competitiveness to be simply a set of characteristics whereby an area may prosper economically without the accumulation of negative externalities in the form of social or environmental stresses. In this sense then we are concerned that there is an effective transmission of growth dynamics from successful businesses in a region to a wider potential supply base and also that the advantages of proximity between trading partners enhances the competitiveness of those businesses relative to rivals elsewhere.

What are the mechanisms for such cumulative advantage? Two types may be identified - general economies of agglomeration applying to all firms within a region and arising from the scale of the agglomeration as a whole, and specific economies related to particular linked or similar firms and restricted to those industries only (Malmberg et al 1996).

Focusing on the supply chain, general agglomeration economies may be expected as a result of a large city or dense regional agglomeration having a wider range and choice of general support services, such as engineering subcontractors, business services, logistics support, testing services etc. Such services and suppliers are useful to a wide range of types of firm, and are not necessarily cluster-related. In addition a large local market, whether business- or consumer-based, will be an advantage to firms through the relatively low cost of supplying that market, and good quality information on consumer demand and changes in tastes. Consequently it is often claimed that innovation thrives in large urban agglomerations because of the scale and sophistication of the local market. The analysis of the costs associated with transactions provides a theoretical foundation for these forms of economies.

More specific cluster economies arise when particular concentrations of interlinked companies develop, and where a region or city can construct a specific set of advantages that benefit certain industries. Such advantages are commonly seen in the context of 'industrial districts', which can be exemplified by the sectoral concentrations that emerged in many North of England cities in the nineteenth century. In these situations the localised supply chain becomes a mechanism for learning and the agglomeration also creates its own set of local institutions that reinforce skills and learning.

These advantages are not necessarily related to particular urban or regional forms, but reflect general agglomeration. Some cases of agglomeration economies are essentially urban, whilst others develop in areas of small industrial towns. As such then it is less the nature of the urban-regional formation than the overall scale of the region and any historic legacy in the form of pre-existing concentrations or patterns of interlinkage that matter.

Although the core cities were often defined in terms of their cluster advantages in the past, what evidence is there of modern manufacturing clusters? Table 4.5 below examines the location quotients for various industrial sectors at the level of the city regions. As we have already noted, core cities themselves are mainly service locations whilst their hinterlands have absorbed much of the manufacturing of the city. Also manufacturing location quotients at the level of a single local authority district are often heavily influenced by one or two large firms. At the city-region level therefore we might expect that any apparent concentration reflects a real concentration of expertise.

Table 4.5 Location Quotient by Industrial Sector, 1996, Core City Region (n. inc. City)

	Birmingham	Bristol	Leeds	Liverpool	Manchester	Newcastle	Sheffield
Agriculture, forestry and fishing	0.10	0.34	0.13	0.12	0.14	0.17	0.08
Mining of energy producing materials	0.97	0.05	0.61	0.03	0.10	**2.49**	**2.65**
Mining of non-energy producing materials	0.96	**1.54**	**2.51**	0.54	1.00	0.91	**2.37**
Metal manufacture and fabrication	**4.02**	0.74	1.00	1.03	1.03	1.08	**2.69**
Manuf non-metallic mineral products	**1.78**	0.63	0.98	**2.99**	0.90	1.37	**2.80**
Processing of energy producing materials	0.28	0.23	0.51	0.55	0.42	0.16	0.00
Manuf chemicals and man-made fibres	0.68	**1.71**	**1.65**	**2.97**	**1.95**	1.46	0.57
Manuf machinery and equipment nec	**1.62**	1.17	**1.69**	1.15	1.27	1.27	1.43
Manuf optical and electrical equipment	1.09	1.39	0.84	0.75	1.02	1.41	0.65
Manuf transport equipment	**2.18**	0.64	0.51	0.66	0.78	**1.79**	0.41
Manuf food, drink and tobacco	0.67	0.79	**1.72**	1.40	1.41	0.75	1.33
Manuf textiles products, leather products	1.04	0.27	**3.35**	0.87	**2.31**	1.29	1.23
Manuf pulp, paper/products; printing etc	0.72	0.86	1.22	0.68	1.18	0.85	0.51
Manuf timber, rubber, plastic & other	**1.73**	0.75	1.36	0.90	1.42	1.45	1.37
Electricity, gas and water supply	1.28	0.79	1.21	0.51	1.05	0.89	0.66
Construction	1.04	0.86	1.01	1.05	1.16	**1.53**	1.30

Figures in excess of 1.50 marked in bold. Source Annual Employment Survey.

The remaining specialisations of the core cities are perhaps predictable, but are important to note in terms of an evolving UK industry policy which seeks to foster the development of clusters:

♦ Birmingham retains a strong orientation towards metal goods and transport equipment

♦ Bristol is strong in chemicals, and surprisingly weak in transport equipment despite a nationally important aerospace complex.

♦ Leeds retains a concentration of textiles and clothing, and is also strong in machinery. Within the city itself printing and publishing is also a strong sector although less so on a city-region level.

♦ Liverpool' strength lies in chemicals and also in non-metallic mineral products.

♦ Manchester as another old textiles centre still has a concentration of such employment, and also has an over-representation of chemicals.

♦ Newcastle has high location quotients for transport equipment and construction – a surprising combination at first, but both linked with the offshore sector in terms of ship repair and refurbishment and exploration platform fabrication. The transport sector is also underpinned by the emerging Nissan complex.

♦ Sheffield's 'strengths' lie in mining and materials, although both have been in decline for many years.

Interestingly, none of the city-regions are particularly strong in electrical equipment, although Newcastle has the highest LQ at 1.4. The manufacturing base of the core cities is still quite traditional in focus and

none have been able to build a strong foundation in modern IT manufacture. The Newcastle region has achieved some success in foreign owned branch plants, whilst Manchester lost its initial advantages in computing and electrical machinery. Again we see a weakness in that the core cities have been unable to play a full role in the modernisation of their regions, because the more modern sectors have followed the knowledge resources and financial power in the South East. The core cities still have an important role in more traditional industries and their future development, but lack the basis for competing with European centres of high technology such as Munich, Toulouse and Milan.

4.4   Cities as nodal points in communications networks.

Cities have always been nodal points in key transport infrastructures, and this is being reinforced at present, but with the addition of a focus on new forms of ICT infrastructure which will be critical for competition into the next century. A number of commentators have drawn attention to the role of major cities as 'information switching centres' of a globalising knowledge economy. Far from undermining the role of cities, the global reach afforded by modern communication systems has fuelled the growth of specialised concentrations of high order services in the largest cities (Sassen, 1991; Mitchelson and Wheeler, 1994).   These cities have expanded their regional hinterlands to incorporate lower order towns and cities.

Electronic technologies appear to have facilitated the move of lower order activities away from the centre of the main cities. Many call centres have selected business park locations on the edge of conurbations or smaller free-standing towns and cities. These technologies appear to have had less influence upon higher order activities and as yet have not encouraged a widespread exodus from the metropolitan centres. These require rich concentrations of face-to-face contact in order to 'make sense' of the information flowing in through electronic networks; what decentralisation is taking places is largely of support services and back offices which do not need a metropolitan milieu to operate effectively.

It has been suggested that the enhanced role which metropolitan centres are playing in an information economy is resulting in the quality of communications infrastructures becoming an increasingly important determinant of the competitiveness of urban regions. Surveys of influences upon corporate locational decision-making reveal that communications issues are regarded as the most important differentiator of cities in Europe. According to Healey and Baker (1995), the top 4 factors companies consider absolutely essential in deciding where to locate their business are as follows:

Table 4.6 The four most important factors in locational decisions

Easy access to markets, customer and clients	66%
Transport links with other cities and internationally	51%
Cost and availability of staff	49%
The quality of telecommunications	49%

Source Healey and Baker (1995)

Meanwhile the traditional transport hubs are still important for the attraction of investment: especially airports given the dominance of international investment in manufacturing and high level business services.

The importance of international transport links for business success can be seen in an analysis by Healey and Baker of European cities external transport links and of their assessment of the best cities in which to locate a business. Inevitably the causative links run both ways, in that successful cities will demand high quality transport infrastructures, but the strength of the association is a key point for our analysis here.

Table 4.7 Ranking of city transport links and location quality

City	Best external transport links 1999	City	Best city in which to locate a business 1999
London	1	London	1
Paris	2	Paris	2
Frankfurt	3	Frankfurt	3
Amsterdam	4	Amsterdam	4
Brussels	5	Brussels	5
Zurich	6	Barcelona	6
Munich	7	Mdrid	7
Berlin	8	Zurich	8
Madrid	9	Milan	9
Manchester	10=	Munich	10
Dusseldorf	10=	Berlin	11
Milan	10=	Dublin	12
Copenhagen	13	Lisbon	13
Barcelona	14	Manchester	14
Glasgow	15	Geneva	15
Geneva	16	Dusseldorf	16
Rome	17=	Glasgow	17
Lyon	17=	Stockholm	18
Hamburg	17=	Hamburg	19
Athens	20	Lyon	20
Stockholm	20		

Source: Healey and Baker European Cities Monitor, 1999.

4.5   The Urban Property Market

4.5.1   Property markets and competitiveness

The property market influences urban competitiveness directly through the provision of suitable accommodation for economic activity and indirectly through its cumulative contribution to the built environment

(D'Arcy and Keogh 1997a). For businesses seeking prestige office accommodation providing a comfortable working environment for staff and attractive place to visit for clients, the availability of prime office space to rent is an important locational criteria.

The spatial search for new premises tends to be constrained by the networking activities of business and financial services, in the form of their ties with clients and firms supplying complementary services, together with the home address of key staff. But, many service firms having made a decision to make a business investment then seek to implement it at the earliest opportunity. The availability of vacant modern office accommodation suited to meet a wide range of different occupant needs is therefore potentially a central factor determining the ability of a location to either provide a competitive environment to attract new investment or to secure the adaptation and growth of its indigenous economic base.

The construction of new commercial property fuels potential developer and investor confidence and the modernisation of a city's property stock then fuels a wider business confidence drawing in occupants from a wider area. This 'boom-bust' cycle, typical of Britain's property market has tended to be less exaggerated in the core cities than in London, but nevertheless, cities which have experienced a gross oversupply of floorspace following a speculative boom have been left with a backlog of secondary office space which has proved difficult to let. Buildings, once developed, typically have a physical lifetime of several decades at least, but the requirements of businesses change much more rapidly. The costs of refurbishment and or demolition and rebuild often outweigh the anticipated growth in values. Thus many buildings remain under-utilised for many years. City centre buildings which generate a satisfactory return for their owners solely from the lease of ground floor accommodation and which have largely obsolete and greatly underused upper floors are a problem common to each of the core cities.

Despite the emergence of new commercial nodes, the central areas of the core cities remain the dominant provincial concentrations of commercial floorspace stock. This stock provides a huge reservoir from which floorspace suited to the needs of businesses can be generated. The core cities have been the recipient of generations of public infrastructure investment and became firmly established as dominant centres within their region partly as a result of relative infrastructure advantages. Their central areas typically remain the points of maximum accessibility for rail users within their region.

Over the past fifty years significant amounts of public sector subsidy in the form of road building, new towns and UDCs have been important in facilitating the development of new floorspace outside the South East of England. These policy instruments have led to the emergence of new nodes of accessibility and new concentrations of office activity. In some cases this investment has helped to reinforce the regional dominance of particular cities (most notably Leeds) in others it would appear to have

displaced activity from the central business districts of some of the core cities.

4.5.2 Constraints and opportunities of an industrial past

The commercial business district of each of the core cities is edged with 'inner city' zones of transition dominated by a relatively dilapidated stock of warehousing and industrial property. These areas typically house a mix of older activities and newer more innovative firms.

Property can be held as a productive resource or a store of wealth. Many manufacturing buildings in inner city areas have become obsolete as industrial buildings and are retained by their owners as a store of wealth. Several reasons are thought to account for this. One is where their book value exceeds their market value and rather than present a loss to shareholders it remains preferable to generate a modest income from secondary uses such as storage or temporary car parking. Another is where 'hope value' of the property exceeds its market value. Shifting policy 'hot spots', may have increased the importance of this factor. Very significant growth in land prices occurred for example in several Urban Development Areas (notably Central Manchester and the Black Country) following the announcement of several million pounds of locally available grant assistance to support redevelopment.

In several cities the drop in rental levels between the established office core and the surrounding mixed use areas is very pronounced. The established low market values in such areas present the public sector with an opportunity to intervene in the market to recycle sites to unlock their potential to house high value commercial activities. However, the value of low cost accommodation to local businesses and the importance to the sustainability of urban communities of untidy inner city uses such as second hand traders and scrap dealers should not be overlooked in attempts to regenerate urban economies.

4.5.3 The effects of a London dominated property market

Nationally, demand for offices is very heavily concentrated in the South East due to higher rates of firm formation and growth of office based sectors and the very heavy concentration of national and international company head quarters both in Central London and the wider South East.

Generally property markets in Southern England have proved to be more profitable than elsewhere in the UK (see for example Key et al, 1998 and IPD, 1996). The vast majority of the most profitable locations for investment in commercial property are in and around London. This greater profitability is believed to be only partly a reflection of qualitative and qualitative differences in levels of market demand. The IPD research suggests that London based property investors over-price South East property investments and under-price regional property investments, which in turn reduces the profitability of investments in regions outside the South East.

Lamb and Edge recently interviewed a range of developers and property investors for a study to assess the need for public sector support towards the cost of providing premises for SMEs in the North East of England. The research found a preference of investors to support schemes of over £3 million and in some cases over £5 million, a large scale of investment for the North East but comparatively small in the South East given differential land values and expectations of demand.

4.5.4   Core cities 'islands' of development opportunity

The level of new development achieved in the core cities over recent years has varied significantly, influenced by a wide range of factors including:
♦ the relative economic size, dynamism and strength of their hinterland
♦ the age and condition of available stock
♦ the pattern of public sector support for property development in the sub region
♦ levels of local entrepreneurial activity in producing new business accommodation.

Despite the difficulties of regional economies outlined earlier the dominance of the core city central areas as centres for business and financial services in their region remains in place. Outside the Core Cities demand has been generally regarded as too weak and localised to secure financial backing from financial institutions. Even the availability of City Grant failed to stimulate significant development outside of the Core Cities, and even the largest urban centres within the hinterland of the core cities have been unable to secure significant levels of speculative office development without direct subsidy. Rent levels are typically lower outside the central business area of the core cities reflecting both weaker levels of latent and expressed demand and also the relative difference in the quality of the stock available. Indeed in the central areas of Britain's smaller towns and cities (outside the South East) there is little stock which could be described as being prime quality. Most of the stock is over twenty years old and does not have attributes which would normally be expected of a new office building such as air conditioning, ducted flooring, etc.

Theoretically, in the absence of new development, property prices may rise and undermine the initial locational advantage. A more common problem is that latent demand is unable to express itself. In many towns and cities businesses remain locked in outdated, secondary floorspace and local developers are unable to develop schemes in a market where the cost of new development exceeds the locally demonstrable market value. It is difficult for developers to convince themselves or financial institutions to back a scheme where success depends upon achievement of a rent level well above the previous maximum achieved.

Towards the end of a period of growth in levels of latent demand the gap between cost and value has narrowed, developers have experienced difficulty in securing finance for a scheme located in a market which is unable to demonstrate sustained rental levels approaching those proposed.

There is typically a mismatch between the economic conditions which prompt new development and the conditions prevailing when the resulting new buildings come into the market for the first time. For many provincial commercial centres in the Northern half of Britain the window of opportunity to realise a commercially viable scheme has been narrow if indeed open at all.

The pattern of development of rented property is influenced by developers and investors perceptions of the demand-supply balance. Their perceptions are socially constructed and the herding instinct is strong explaining the sometimes exaggerated boom and bust in property supply expressed in some locations.

4.5.5 Centres of learning, new business accommodation and the knowledge economy

One of the major hypotheses of urban economics has been that the 'inner city' acts as a nursery for new firms and industries. It has been variously argued that inner city areas can provide the advantages of a combination of low accommodation costs with a variety of urban economies (proximity of specialist suppliers, sub-contractors, large concentrations of businesses and people.

The 'core cities' benefit from spatial concentration of higher education establishments within the regional hinterland they serve, including a significant proportion of the UK's top computing, engineering, design and art schools. The concentration of PLC and business service businesses in these centres arguably afford a localised opportunity for innovative start up businesses. The combination of a strong knowledge base and a spatially concentrated local market presents the core cities with a relative advantage over other parts of provincial Britain to establish competitive strengths in emerging knowledge based sectors.

Start up businesses continue to demonstrate a preference for low cost accommodation accessible from the founder's home. The availability of suitable low cost accommodation in close proximity to learning centres may contribute to future regional competitiveness. Further, the ability of the 'core cities' to maintain and foster an environment in which it is attractive and affordable to both live and work creatively may become an increasingly important factor in the wider competitiveness of their region.

Careful management of the supply of office property is needed to maintain levels of profitability for the development industry and maintain a healthy range of available floorspace without encouraging the development of a gross oversupply. In order to achieve this core cities will need varying amounts of support to:
- raise the infrastructure capacity to accommodate growth (traffic management, public transport to alleviate congestion, car parking, public open space);
- intervene directly in the property market through the purchase and or development of buildings which meet the needs of existing and emerging inner city industries in order to protect identified sites and quarters from speculators; and

♦ provide pump-priming support for selected developments in order to extend the established commercial core. Support needed might be in the form of rent-risk sharing or rental guarantees in order that market demand for accommodation at a commercially viable market rental can be achieved.

Creation of a responsive and flexible property market capable of meeting the rapidly changing requirements of industry depends on long term support and a good measure of skill and luck. Achieving and maintaining a balanced portfolio of available accommodation, juxtaposed in a way which meets the rapidly evolving and wide ranging needs of businesses and residents will become arguably more difficult to achieve in a future in which property investors are faced with an increasing global array of investment choices.

4.5.6 The need to modernise infrastructure and overcome market failure

City centres remain the areas of highest expressed demand; prime rental levels are typically considerably higher than those achieved elsewhere in the surrounding region, thus with careful intervention sites can be unlocked with relatively modest public sector pump priming

The cumulative effect of programmes of central government-led investment have created new nodes of accessibility, new environmentally attractive sites with ample parking next to modern buildings. This investment has encouraged the dispersal investment to the fringes of inner city locations as well as to green field locations and has narrowed the business advantages of city centre locations.

Although some of these new nodes are significant with the larger ones extending several hundred thousand square feet, most remain modest in size compared with the city centres. Thus although they may house several hundred jobs they typically lack the critical mass to be served directly by a comprehensive range of public transport services or provide a full range of employment opportunities. For many inner city residents these new employment nodes are thus much less accessible than the central area of cities. For the minority of inner city residents that happen to be closer to a new employment node, the range of employment opportunities created has in many instances proved a poor match for their skills and employment needs.

The 'core cities each has a huge reservoir of land and property which could be better utilised. As established nodes of public transport accessibility the central areas present the most logical point from which socially grounded regeneration strategies should radiate.

The 'core cities' through strategic investments have been able to secure the redevelopment and renaissance of particular quarters in their cities. They have achieved this in some cases through active land purchase and assembly to achieve the comprehensive regeneration of whole quarters in the city. The redevelopment of the Broad Street area in Birmingham to create the new Arena Central Leisure Quarter involved public sector pump priming extending to over £100 million. The result has been the wholesale

redevelopment of a largely redundant area in between Birmingham City Centre and Fiveways, the two prime office areas within Birmingham. This investment also levered in many millions of private sector investment in part of the city almost devoid of private sector investment for well over a decade. Most importantly the investment provided a significant uplift to the business infrastructure and image of the city.

Others have been proactive in seeking developments in strategically important locations. Several UDG and City Grant schemes appear to have achieved the redevelopment of individual sites with modest amounts of public sector assistance which appear to have provided a beacon to attract subsequent waves of private sector investment.

The core cities have also been proactive in securing the revitalisation and adaptation of quarters through the development of business tourism and cultural activities. The development of G-Mex and a new concert hall in Central Manchester and the development of the Arena Central leisure quarter in Birmingham provide examples of this. The national and international profile and coverage given to such new developments in some of the 'core cities' appears to have helped to reinforce local and external perceptions that the core city concerned is the place to invest in the region.

The relative concentration of both students and young urban professionals has also enabled the 'core cities' to test the market potential of new forms of working and living accommodation (with shared facilities such as a car pool). The successful conversion of former mills into cafes, workspaces and flats has demonstrated within a regional context the market potential to regenerate underused former industrial buildings. Urban Villages have been created such as Ancoats in Central Manchester, St Peter's Basin, Newcastle, and docklands developments in Bristol.

5.   The cosmopolitan city

In understanding the special contribution of a city to its region, one important aspect is its cosmopolitan nature. Cities are above all places where different groups of people meet and mingle: people of different classes, different occupations, different cultures and different races. Such co-mingling contributes to the cosmopolitan nature of the city and we believe to innovation: not solely in the narrow sense of new technological artefacts, but in the broader sense of new forms of consumption, of organisation and of ways of living. The city is where fashions are set, where change is constant, where hybridisation is the norm. Its cosmopolitanism produces innovation and is itself a product of the creativity that emerges from the confluence of difference.

Cities are identified with the cosmopolitan, although only some truly merit this description. But the notion of cosmopolitanism is difficult to grasp - it is a subjective concept as the foreign always seems cosmopolitan, but may represent only a single culture and therefore be parochial in its own terms.

So what makes a city cosmopolitan? Is it simply the presence of a variety of racial or ethnic groups? A city such as Bradford with two dominant groups, each with a distinctive working class culture may not seem genuinely cosmopolitan. There needs to be a combination of different social classes as well as a variety of ethnic cultures. Cosmopolitan cities invariably cater for elite groups as well as having diversity and, in the sense of having many connections beyond the purely regional or national, belong to the world rather than to a specific region.

How do we identify the cosmopolitan city?

Cosmopolitan cities are meeting points of cultures, where peoples from different backgrounds mix and exchange ways of living and working. There will not only be an ethnic and social variety, but also high levels of inward and outward migration. This migration will be linked to high levels of social mobility, so that a relatively high proportion of many social classes will have come from outside the region and the dominant local culture.

Cosmopolitan cities are also centres of cultural consumption inasmuch as their 'local' population has high demands for cultural services, and the mix of cultures leads to opportunities for great diversity. The formal international culture in terms of art and music will be demanded by the elite groups, but will exist in parallel with local cultures for the different populations of the city.

Architecturally there is usually a combination of the grand and spectacular with smaller scale fine grain areas where entrepreneurial activity will tend to concentrate. The spectacular forms part of the attraction for visitors especially the sophisticated elite migrant workers, although a city consisting only of monumental architecture would seem hollow. Cheek-by-jowl with the monuments should be areas of more chaotic development, ad hoc and messy, where new firms can find cheap

accommodation, where students and artists can live, where cafes can emerge.

The cosmopolitan city will receive many visitors in the form of tourists, but it is more than a tourist city. Tourists rarely bring their culture with them, unless it is to impose a bland version of their own culture as an enclave such as in many Mediterranean resorts catering for mass tourism. It is often the uniqueness of a city's culture that attracts tourists and this is just as likely to be a non-cosmopolitan local culture. In true cosmopolitan cities the tourists are less exotic than the local: typically an international crowd of white middle class Europeans and Americans visiting a city with a more diverse ethnic mix where one can sample cultures from all continents. By contrast in a city like York the visitors are the exotics, with Japanese and Americans queuing up to sample very local fare.

The effect of the combination of racial and cultural variety in a cosmopolitan city is reflected in its access to knowledge and information. At a crude level international newspapers and literature circulate widely - bookshops exist to sell foreign language editions. However, on a more sophisticated level knowledge of new ways of organisation, of innovation within business circulates as a result of the constant replenishment of management by newcomers with experiences from elsewhere. This is particularly important with regard to the creative media sector and information services, currently the fastest growing area of the economy and one where key cosmopolitan cities appear to have an advantage.

The importance of the cosmopolitan city to its region is significant. Such cities are invariably the focus of immigration which sustains the cosmopolitan ambience. In a region with a cosmopolitan city the effects of the city as an economic motor and centre of innovation will be profound – in terms of the generation of business and knowledge which can overspill into surrounding towns, and also in the effect on the image of the region and the ability of the wider region to attract and successfully absorb mobile investment.

5.1   Assets of the Core Cities

A key aspect of the core cities is that they are the location for many cultural, leisure and other service activities. The cities provide for these activities through the presence of major facilities which are relatively scarce; as a result of this scarcity these facilities are assets which benefit the residents of other areas in the city-regions and beyond. Table 1 in the annex includes many such facilities among the 16 criteria for core city status, and all the seven core cities meet at least 12 of these 16 criteria. A few examples can illustrate the way in which such facilities provide assets of benefit to residents of other areas:
♦ Liverpool and Sheffield both include two Universities within their city boundaries whilst there are none within the much more populous areas which make up the rest of their city-regions;
♦ all the seven core cities are centres for publishing evening newspapers, and several also host the publishing of morning papers serving a still wider regional market; and

♦ all but Sheffield provide an airport with a clear regional role.

Fully 25.5% of Britain's population lives within one of the seven city-regions. Table 5.1 also reports the very slightly higher percentage which is the core cities' share of the city-regions' total population. These two figures provide benchmarks against which the location of cultural and leisure 'assets' can be compared. If the city-regions house a higher share of an important activity than the relevant benchmark percentage then they can be seen to be net contributors to the rest of Britain in that respect; in the same way, if the core cities provide more than a quarter of the city-regions' total then they are acting as major centres for their city-regions. Table 5.1 illustrates this form of analysis first with an apparently light-hearted example: the international success of the Euro 96 tournament depended very heavily on the seven city-regions which provided over 70% of the tournament's venues — and 80% of these were in the core cities themselves (N.B. the "Manchester" stadium is in fact just outside the core city's boundary, but within its city region).

Turning to some other forms of leisure and cultural pursuits, a recent survey listed all museums, galleries, theatres and concert halls or other performance arenas (Focas et al 1995). Table 5.1 shows that the seven city-regions provide less than the 25% share of Britain's theatres and halls — and also cinemas — which would be expected on the basis of their share of Britain's population. There is, at the same time, clear evidence that the core cities are providing facilities for the residents of the other areas of their city-regions because the cities contribute over 40% of the city-regions' theatres and halls, and of their cinemas too. In other words, these regions have fewer of such facilities 'per head' than is the national average *but* the facilities which they *do* have are strongly concentrated in the core cities.

Table 5.1 shows that the city-regions include a share of Britain's museums and galleries which is similar to that of their population share, but the role of the core cities in providing facilities for their regions is shown again with over a third of the museums and galleries being in the cities themselves. It should also be noted that this type of calculation can be assumed to under-state the role of the core cities because Birmingham's theatres, for example, will include some very large facilities which are each here counted as simply "one theatre" as if they were the same as a small town's local theatre. The more regional role and scale of arts, heritage and sport facilities in core cities is also beginning to be evident among the major projects funded by the relevant National Lottery distributor bodies. FitzHerbert and Paterson (1998) reveal the increasing prevalence of very large grants and these are quite frequently located in core cities — for example, Manchester alone recently received three grants of over £15m. Of course, these successes have to be achieved on a case-by-case basis as there is no explicit prioritisation for core city projects in the lottery funding procedures.

Table 5.1: Leisure and cultural facilities

	The 7 city-regions' share of the total for Britain	Core cities' share of the total for their city-regions
Population	25.5%	25.9%
Euro '96 venues	71.4%	80.0%
Theatres and Concert Halls	19.8%	41.8%
Cinemas	19.5%	40.5%
Museums and Galleries	24.6%	35.0%
Visits to Tourist Attractions	17.2%	29.1%

5.2 Cultural activities and city competitiveness

Cultural activities have traditionally been seen as merely consumption activities in cities, but more recently have been recognised as part of the production base, with potential to export services to those outside of the city as well as to local residents.

There is a growing inter-relationship within core cities between cultural activity (in its broadest sense referring to speciality shopping, cafes, restaurants, bars, night-clubs, galleries, museums) and the use of the city centre by certain groups. These groups include the private sector professional business community, tourists, and an expanding groups of what can be considered as cultural intermediaries (students, graduates, artists, musicians and even retail and bar staff) who are responsible for the creation, distribution and production of culture in city centres.

Taken together, these elements constitute a rich and diverse cultural infrastructure in the city centre and can create a virtuous cycle of growth which needs to be recognised in promoting city competitiveness. However cities also have to meet certain costs of provision of services for a wider regional or even national market, and such costs are borne by the city rather than the users . Moreover, the growth of a rich cultural base within a core city culture can have both negative and positive effects. These are highlighted below.

5.2.1 Branding and regional specialisation

Britain's core cities, sharing a similar size and socio-economic history, have developed and marketed a new image for themselves based upon cosmopolitanism and metropolitanism and as a place for tourism and high

quality cultural and leisure pursuits. This re-branding process has been an attempt to shed images of their heritage of decline and dependency upon traditional industrial sectors.

Some core cities have been able to acquire a self-sustaining cultural image and dynamic through a large professional community and its role as a specialist business and consumer service provider. This facet of core cities associates them with a tier of larger, cosmopolitan and European wide cities and disassociates them from smaller, neighbouring regional towns and cities. As regional capitals which can attain a certain critical mass of activity, core cities draw upon notions of diversity and cosmopolitan as the basis of a new image and brand which smaller regional centres cannot achieve.

However, tensions can emerge between the cosmopolitan and diverse image of core cities and the largely rural, historical and heritage based image of the surrounding region. This problem can be addressed at a regional level through mechanisms such as the RDAs. Within each region, there is potential for greater networking and co-operation between the component part to grow the overall market for culture and tourism and further contribute to the attractiveness and coherence of the wider city-region.

5.2.2 The ripple effect

Core cities are unique regional assets; by putting themselves on the map, they can also put the wider region on the map. In this sense, the critical mass of cultural activity in core cities creates a 'ripple' or 'spill-over' effect into the wider region.

Due to the success of re-branding their image, core cities are tourist destinations in their own right. As visitors stay in the city longer, the employment and income impacts of tourism are no longer confined to the city but are conferred to other parts of the region. Leeds in particular has capitalised upon this synergy through the concept of 'Gateway Yorkshire'.

Rapid growth and market saturation in core cities can promote diffusion from the centre to the rest of the region, with a second round of growth in smaller regional centres. The main two drivers to this second round of growth are the model for development which core cities provide for the rest of the region and the receptivity to new consumer environments which has been generated by people from throughout the region visiting core cities.

Mechanisms and initiatives which underpin growth in core cities can be imported elsewhere in the region and, through its broad cultural base, the city could confer its expertise, knowledge base and resources upon the region. This could include reputation as well as knowledge and skills needs and support for capturing funding opportunities. Clearly, this diffusion model is imported into core cities from other cities at a European and global level.

In the short term, the rapid growth of a cosmopolitan atmosphere in core cities can have a negative impact on the wider region by drawing trade

from other towns and cities. However in the longer term there is evidence of a 'ripple' effect upon into the hinterland. A new generation of consumers are visiting core cities from the surrounding area and taking away new tastes and preferences. Moreover, the success of core cities encourages others from outside the region to take a fresh look at the city and, equally significantly, its wider region.

5.2.3 Division and conflict

One area of concern is the extent to which growth in the city-centre of core cities is addressing issues of cohesion and convergence, both within the city and within the region. Future opportunities in the city-centre should also address the needs of groups, especially the young unemployed, in these areas.

Increasingly, core cities have sought to develop policies enhancing the 24 hour city. However, there is evidence of polarised growth within the city centre's evening economy. Some of the rhetoric of the 24 hour city has not seriously confronted issues of safety, integration and diversity, and city-centres are still seen by many residents as divided and relatively dangerous places during the evening

5.2.4 The shadow effect

Increasing the cosmopolitanism and animation of core cities may cast a shadow over other centres in the region. Re-branding core-cities as places of knowledge, learning and culture can present unfavourable comparisons with the image and reputation of other areas which are still heavily associated with their declining industrial heritage and lack of cosmopolitanism.

The shadow effect over the rest of the region prompted by the success of core cities may subsequently be turned into a ripple effect in the long term but only through a co-ordinated set of activities and promotional devices which enhance a significant amount of trickle down to the rest of the region.

6.   The social challenges for core cities

The key to understanding core cities is to recognise the *specialist functions* which they perform for their city-regions. The core cities' specialisms are one aspect of the inter-dependence between cities and regions, and this inter-dependence can be seen in the very substantial *linkages* and flows to and from the core cities. In the preceding sections of this report, these concepts of specialisation and linkages were very evident in the concentration of certain business and other services in the core cities which attract flows of highly qualified commuters from other parts of their city-regions. In this section the same processes of specialisation and linkage are shown to put the core cities at risk of acute problems of social polarisation.

6.1   The role of migration

The fundamental set of flows which bring about social change within the core cities and their city-regions is migration. It is migration which alters the social composition of an area, either gradually through one group being slightly more inclined to out-migrate whilst a different group shows a slight net in-movement over time, or quite suddenly due to a large scale local redevelopment for example. The housing market 'sorts' people very efficiently so that neighbourhoods tend to include people in similar economic and social circumstances, whether that takes the form of their ability to pay a certain level of house price, or it is in terms of their relative priority within the social housing sector where some estates are unpopular and so become tenanted only by those with little choice. In this way, a large city's many neighbourhoods become highly differentiated from each other, with the last two decades in particular seeing an increasing social and spatial polarisation between the better-off and the poor. The continuing English cultural preference for all things rural has left cities with a decreasing share of those social groups whose affluence gives them the mobility to continue to enjoy the opportunities and facilities of city centres while living well outside the urban area.

Given that in the social sphere it is migration flows which make up the key *linkages* between core cities and their city-regions, what are the core cities' *specialist functions* in social terms? The first point to recognise is that social segregation is a long-standing feature of urban regions, especially in and around those cities those with an industrial heritage. The physical and social form of the industrial city was determined largely by the division of labour and the pattern of social relations created by the factory system: a commercial core was surrounded by a ring of industry and the need for a nearby labour pool led to the formation of highly localised neighbourhoods of manual workers. Very often those in higher social groups would locate on the outer rings of the city away from industrial activity. In this way, a city with narrowly-drawn boundaries has always been likely to house more of the less well-off social groups out of the wider population whose living depends upon that city's economic activity.

The recent restructuring of the British economy, with the shift from manufacturing activity to service activity as the largest element of the productive base of cities, has created new types of segregation within the service-oriented, post-industrial city. A number of trends in migration flows can be identified which have contributed to the increase in segregation over the last few decades.

- The in-migration of ethnic minority groups to Britain has made the larger cities the most ethnically diverse parts of the country and has led to ghettoisation in certain neighbourhoods.

- The increasing scale of higher education institutions attracts rising numbers of transient young people to inner city areas and, through rent inflation in the private rented housing sector, students may displace more traditional working class families.

- The affluence and critical mass of cities provide opportunities for marginal existence for the disadvantaged from all areas — the homeless, migrants, young unemployed etc. — who then become the most likely residents of derelict inner city or peripheral estates.

- The perception of a declining quality of life in cities — associated with congestion, pollution and crime — has fuelled the tendency for many middle and higher income families to seek better residential environments in more distant suburbs or rural areas.

These migration processes have gone hand-in-hand with other social changes which have also brought new dimensions to social segregation in urban regions.

- Increases in unemployment have become endemic among the less skilled groups in the many cities where growth in the service sector has not been able to keep pace with job losses in manufacturing employment.

- The breakdown of traditional family forms has resulted in particularly rapid increases in numbers of single parent households in the largest cities.

- The continuing growth in car ownership has fuelled the spiralling of American style out-of-town retail and leisure complexes, which undermine the sustainability of traditional city centres.

- The creation of islands of prosperity through the spatially targeted policies of Development Corporations in the 1980s, together with some examples of more spontaneous gentrification of inner-city neighbourhoods, has created some small enclaves populated by young middle-class professionals.

As a result of these changes, many cities are taking on a patchwork identity with many deprived neighbourhoods side-by-side with the remaining areas of prosperity. The provision of information on 'quality of life' such as school performance tables further enhances polarisation as the more affluent move into the catchments of good schools thereby driving up house prices and hence entry barriers for others.

6.2   Liabilities of the core cities

In their role as the major centres for their city-regions the core cities act as magnets for in-migration by young people in particular, and in general by those seeking the cities' diverse character and opportunities. Cities also tend to be at their heart of regions' well-developed transport networks, and one effect is that their jobs are accessible to people living in many nearby areas (as was seen earlier in the analyses of commuting). n the longer term, trends such as the large-scale loss of traditional industries from cities and the out-migration of the those with the skills required for the cities' professional and managerial jobs have left the cities with a "jobs gap" (Turok & Edge 1999). Table 6.1indicates the scale of the problem by showing a broad measure of unemployment calculated by Sheffield Hallam University (Beatty et al 1997) — in Liverpool almost one in three of all those who are potentially economically active are here shown to be without work. These figures also show that such extreme levels of joblessness are not simply the result of the cities being located in regions of high unemployment. Table 6.1 finds that, Sheffield apart, each of the core cities has a higher unemployment level than is typical of the other areas in its city-region — indeed Manchester's rate is more than double that of its neighbouring areas. Birmingham and Bristol are not far behind Manchester in the degree to which the city-region's unemployed are concentrated in the core city.

Table 6.1:Unemployment and Poverty

	"Real Level of Unemployment" 1996/7 estimated by Sheffield Hallam University (Beatty et al 1997)		**Proportion of all households who were receiving Housing Benefit in 1996 (ONS 1998)**	
	core city	**median value for the rest of the city-region**	**core city**	**median value for the rest of the city-region**
Birmingham	18.8%	10.7%	27.5%	18.2%
Bristol	14.6%	7.7%	22.6%	13.9%
Leeds	13.0%	12.5%	23.6%	18.0%
Liverpool	32.0%	22.3%	40.5%	23.5%
Manchester	28.6%	14.1%	50.3%	18.9%
Newcastle	22.6%	18.9%	33.4%	23.8%
Sheffield	17.8%	19.3%	27.0%	22.0%

Table 6.1 also presents data on the effect of joblessness in terms of people's dependency on state benefits. The very high percentage of households in the core cities who receive Housing Benefit is partly a result of the higher housing costs in cities (compared to outlying towns)

plus the frequency of those who find work having to accept low paid jobs. The result is that the seven city-regions' benefit recipients are even more clearly concentrated in the core cities than were the unemployed. Table 6.2 goes on to show a similar picture using the government's Index of Local Deprivation (which includes indicators on unemployment and the receipt of state benefits). Bristol is the core city with the fewest problems of deprivation, but it is still recorded as being 'worse than average' (for England) on 8 of the 12 indicators. By contrast, this is the same level of multiple deprivation as is typical of the *most* deprived of those parts of the seven city-regions which lie outside the core cities.

Table 6.2 also presents data on one of the most crucial impacts of the sustained economic and social problems of core cities — population decline. Once again, it is clear that the core cities are bearing a peculiar burden because there is no city-region in which the core city has a more positive population trend than is typical of the surrounding area (only Newcastle has managed to more or less keep pace with the rest of its city-region). The importance of these figures is that they further fuel the problems of cities in having only a small base from which to finance the provision of services for the whole city-regions' population.

Table 6.2: Deprivation and Population Decline

| | Number of deprivation indicators (out of 12) on which the area is more deprived than the average for England (DETR 1998a) | | Population change 1981-96 (ONS 1998) | |
	core city	median value for the rest of the city-region	core city	Median value for the rest of the city-region
Birmingham	11	4	-0.0%	+3.8%
Bristol	8	1	-0.4%	+11.7%
Leeds	9	8	+1.3%	+4.0%
Liverpool	12	8	-9.5%	-3.5%
Manchester	11	6.5	-6.9%	+0.0%
Newcastle	10	6	-0.6%	-0.6%
Sheffield	10	8	-3.2%	+1.1%

6.3   Polarisation and the prospects for cities' prosperity

One of the most striking features of city growth in recent years is that city centres are becoming linked into networks of higher order business services and knowledge — with consumption, culture and residential environments for the more affluent — whilst the more traditional manufacturing functions of the city have withered away leaving the less

skilled and manual workers facing high unemployment rates. One interpretation of these trends is the concept of the 'dual city' which highlights a widening division between the formal and the informal economy: the competitive city-region is based upon high value added services and high tech industrial production, but the other side of the coin is a growth in informal economic activity. A dual city is thus not only marked by occupational and wage polarisation, there is also the social polarisation resulting from employment, leisure and retail opportunities effectively being unavailable or inaccessible to the city's disadvantaged residents. At worst, the dual city features an urban underclass who are divorced from the formal economy and also have little access to public services, whilst also being spatially segregated in certain areas of the city.

The statistics on the seven core cities which were presented earlier leave little room for doubt that the cities are bearing a high proportion of the social costs associated with the growth of poverty in their city-regions over the last two decades. In the northern city-regions where economic decline has been endemic, social polarisation is reaching such a level that neighbourhood abandonment is occurring increasingly (Power & Mumford, 1999). The revitalisation of the core cities is critical for their city-regions' economic regeneration, and this revitalisation will not be possible without addressing the social problems which the cities have inherited. It is only necessary to look at the bleak circumstances of many core cities in the United States to see the effect of long-term selective out-migration which fuels substantial population decline coupled with acute social polarisation — often in the midst of regional economic prosperity.

Champion et al (1998) have reviewed the key influences on the patterns of migration which will in time determine whether the British core cities can avoid sharing the fate of many of their US equivalents. Addressing both social and environmental problems seems to be a pre-requisite for the cities to alter the perception that they offer a poor quality of life. Major injections of resources will be needed to drive up the quality of public services, and particularly of schools, in order to attract and retain the young families who are the most frequent out-migrants from cities. A recent report by URBED et al (1999) asked "But would you live there?" and concluded that the social diversity and fluidity of cities does remain an attraction for many people. Thus there can be optimism that the cities could staunch the long-term trend for the more affluent to leave, given the capacity to improve their citizens' quality of life by tackling problems associated with chronic economic and environmental decay, together with its legacy of social polarisation.

Central to the solution of these problems is the creation of jobs, although the lost male manual jobs can not be expected to be replaced by the private sector recreating the types of jobs which have been lost. The public sector has a considerable role to play through reinvestment in infrastructure and repairing the consequences of years of decline, and more investment is needed in education and training to equip the young people of these areas for the new service and knowledge jobs which can be created by the private sector. In addition, greater attention must be paid to the social economy and area-based initiatives can play an important

role here. Overall, however, only economic development strategies which provide the means to address the regeneration of the wider city regions will be able to address the continuing causes of joblessness and the debilitating outflow of more prosperous groups through migration.

6.4 Addressing the challenge of social exclusion

The disadvantages faced by some communities including lack of parental support for education, high rates of violence, vandalism and burglary, lack of access to play and recreation facilities, poor housing and so on require spatially targeted support to address.

Significant levels of funding (several billions over the past twenty years) and reinvestment in deprived inner city areas has seen a widening rather than narrowing of inequalities of opportunity and a continuation of the middle class fleeing the cities. Support for private sector housing investment on sites cleared of abandoned local authority housing stock for example has generally not led to the creation of 'balanced communities' or improved levels of educational attainment in local schools. Substantial support for private sector investment has tended to attract investment in office, leisure and retail accommodation. This investment has in many case drawn businesses and their existing employees from elsewhere in the urban area thus creating relatively few local employment opportunities in the targeted area suffering from relative deprivation and adding to the blight experienced in the non assisted area.

Although there has been a shift away from property led regeneration, government policies aimed at achieving community regeneration remain fundamentally flawed. Regeneration policies and programmes such as SRB, New Deal for Communities, Education and Health Action Zones continue to draw lines between regeneration and non-regeneration. By spatially targeting resources solely into small areas this can isolate the problems within urban communities.

The problems and deficiencies of the regional economy in the context of the wider global economy are manifested in the relative deprivation faced by inner city residents. By isolating the local from the non-local the continued waves of spatially targeted government initiatives do not represent a truly integrated approach to regeneration. Without successfully integrating a higher proportion of inner city residents into the wider city and regional economy, spatial concentrations of deprivation will remain. Measures to address a widening employability gap need to go well beyond housing jobs in inner city areas and improving housing stock

The employability and mobility of residents needs to be significantly improved. Such measures will need to be complemented with the creation of employment within the city which matches more closely with the skills and employment aspirations of unemployed residents.

Strategies which attempt to maximise the 'leverage' of private sector investment will inevitably contribute to the displacement of a host of 'low value' uses such as scrap yards, importers, car repairs, warehousing, screen printing, fashion garment production, jewellery making and paper

printing. Industries which traditionally have provided a source of jobs for inner city residents are being replaced with 'temporary' car parks, or higher value uses (housing, retail, leisure or office). Heavily subsidised investment in flagship regeneration sites may have increased very significantly the number of jobs housed locally but could in some instances have led to a net reduction in the number of men living and working locally.

7.   The challenge of sustainable urban development

Recent years have seen an increasing awareness of environmental issues in an urban context. The call for more sustainable development involves a new understanding of urban management which seeks to address economic growth alongside concerns for social cohesion, intergenerational equity and environmental protection. The recently-adopted European Spatial Development Perspective (ESDP) outlines a strategy for the sustainable development of cities in the following way.

> The physical and social well-being of towns and cities is a vital factor in economic development. It provides further justification for working towards an integrated model of a sustainable city, although approaches will vary considerably depending on local circumstances. Five essential features of this model are of particular importance for spatial development strategies: control on the expansion of cities, the mixing of functions and social groups within the urban fabric (particularly in large cities where areas of exclusion are arising), the prudent management of the urban ecosystem (particularly water, energy and waste), the development of means of access which are both effective and environmentally friendly, and the conservation and development of the cultural heritage (1997, 61).

The objectives run contrary to many well-established trends in European urban and regional development. The globalisation of economies has meant that cities are connected to regional and international networks which provide raw materials, energy, food, goods and services. These networks depend upon major transport infrastructure which lead to high levels of energy consumption and undermine attempts to make the contemporary city more sustainable. In addition, as cities are increasingly 'connected' to European and global networks and high speed telecommunication infrastructures, many residents within these cities remain 'disconnected' from such opportunities and do not share in the benefits. Recent experience has shown that advanced electronic infrastructure tends to reinforce existing patterns of inequality and uneven development rather than to reduce them.

Cities have also felt the need to compete to secure investment and jobs, following models of development based upon large scale urban redevelopment and meeting whatever demands are made in order to secure footloose global investment. The public subsidies which go towards funding these models are thereby unavailable for small scale and community based projects, or for the basic public services needed by those social groups who benefit very little from competitive models of development. Most significantly of all perhaps, the ever-increasing dependence on private cars for mobility within city-regions poses a huge challenge to the aim of improving both the competitiveness and the sustainability of cities.

Despite a variety of measures undertaken in major urban areas to tackle the environmental problems of noise, air pollution, water pollution, traffic congestion and water consumption, there is little evidence as yet that sufficient progress has been to ensure longer-term sustainable urban development. The negative effects of these environmental problems extend from their impacts on the quality of life and human health to the economic viability of the cities: polluted cities are unattractive to mobile people and investors, and the costs of coping with the problems can take a heavy toll on municipal financial resources.

Over the last hundred years, there has been a strong tradition of raising sustainability concerns within urban and regional planning debates. The garden city movement led by Ebeneezer Howard argued for smaller urban settlements surrounded by green belt farm land, while Patrick Geddes and Lewis Mumford stressed the need to achieve a balance between urban growth and the regional natural environment. Such ideals of city planning were embodied in post war New Town and Green Belt policies. More recently Kevin Lynch has argued for a galaxy of cities in which high density towns and cities are linked together by public transport to create inter-dependent poly-nuclear regions.

It is through a city-region perspective that sustainable development can be properly considered, because at this level environmental externalities can be accounted. In particular, it is possible to assess any negative environmental effect of core cities, which may often be the centres for the creation and redistribution of major environmental externalities which are passed on unevenly, both within the city and outside (Haughton and Hunter, 1994, 52). The city-region can thus provide the effective framework through which to address many of the objectives of Agenda 21 which were agreed at the 1992 Earth Summit and the UN Conference on Human Settlements (Habitat II). Planning for sustainability at the level of unitary authorities over-localises some issues whilst national level planning misses inter and intra regional specificities.

The over-riding aim is to balance economic development, social concerns and the needs of the environment. As a result, sustainable urban development requires integrated policy approaches with the other challenges specified in this report.

The challenges of competitiveness and cosmopolitansism: policies to strengthen economic prosperity and employment in urban areas within a context of globalisation and economic restructuring must also take into account the need to work towards a balanced urban system.

The challenge of social polarisation: breaking the links between economic restructuring, spatial segregation and social exclusion in declining urban areas

The urban environment challenge: working towards a genuine local and global sustainability

The government's recent White Paper on Sustainable Development (DETR, 1999) has a strong urban focus:

Thriving regions, cities, towns, villages and neighbourhoods are fundamental to quality of life. Strong economies, employment opportunities, good access of services and attractive and safe surroundings are vital for their sustainable development. We need to achieve these in ways which make good use of natural resources, protect the environment and promote social cohesion.

In this way, environmental concerns can be seen not as secondary to economic and social priorities, but as an equally important aspect of the same integrated set of challenges for the development of cities and their hinterlands.

7.1 Curbing urban sprawl

The process of decentralisation of population within the core city-regions has already been noted and is prime concern of the sustainability agenda. Decentralisation and suburbanisation arising from car-borne commuting have been central features of city-region development in the late 20th century. Indeed the central idea of the city-region as more relevant than the municipality derives from these processes. The consequences of such changes however are problematic: high energy use in private transport with associated pollution, low density sprawling suburbs, the expansion and loss of identity in small towns around the city, and social polarisation with high unemployment and deprivation in the inner city,.

Whilst the city is at the heart of these unsustainable developments, it also offers some solutions in terms of concentrating people and work for optimum use of resources. Although cities impose a huge environmental burden, this is an absolute rather than relative impact, and densely populated cities are also more efficient in terms of transport energy use. The problems of the cities need to be addressed by policies with sustainability at their heart, and solving the problems of the core cities can significantly benefit sustainability at a UK level.

The first question to be addressed is the physical expansion of cities within their city-regions and the growth of low density sprawling suburbs and dormitory areas complete with business, industrial and retail parks, and large area of land devoted to accommodating the car.

DoE (1995) forecast between 1991 and 2016 some 4.4m extra households will be formed in England of which 1.73m would be in the South East with pressure in the immediate counties around this region also. All of the core cities are in areas of low growth – mainly less than 20% as opposed to 30-50% in the corridor from Somerset to Suffolk - but even so this growth will further exacerbate pressure on the urban fringes. The government response has been to target brownfield sites, but these are mainly in the cities and hence there is a need to shift demand from the South East to the core city-regions. But demand is driven by availability of work and by acceptability of location.

An ECOTEC report which led to PPG 13 on Planning and Transport suggested that large urban areas are more economic in their use of energy

consumption than small towns and rural areas, although it needs to be recognised that large urban areas also have a high proportion of low income people without access to the car. Newman and Kenworthy (1999) also found that cities with a strong concentration of central jobs and a better developed public transport system have much lower energy use.

An alternative perspective is being promoted by the Town and Country Planning Association, who suggest that given existing attitudes to semi-rural locations, car use, economic decentralisation that demand could be met by the sustainable city concept, that is a network of smaller urban settlements linked together by high quality public transport routes. But a policy of rebuilding core city economies and attracting new housing development into core cities is an important element in the process.

Restricting the expansion of the core cities through the continuation of greenbelt legislation and a restrictive planning regime can only be one part of the process. In a sense it is quite an inappropriate tool as it does nothing to constrain demand and therefore leads to inflated land values. Some development in greenbelt areas may be more sustainable than further low density development within cities and from a regional perspective the need to attract growth away from the over-pressurised South East may require some expansion of core cities.

In parallel, positive measures to encourage re-concentration and the revalorisation of inner city sites are needed. As part of these measures, higher densities must become more acceptable to a wider range of residents. This implies the reversal of the trends to the detached house with garden and a move to a greater mix of dwelling types with more flats and terraced housing. Although cities impose a huge environmental burden, this is an absolute rather than relative impact, and densely populated cities are also more efficient in terms of transport energy use.

7.2 Investment in integrated transport

In the long term, if there really is a shift to more use of public transport for freight and people, then central area locations near rail routes could have advantages, particularly for office locations. There are clear signs of a locational shift in the office sector in several European regions towards public transport nodes. In some cases this locational shift has increased the concentration of activity in the central business district (e.g. Berlin, Lyon) in others new public transport nodes on the edge of the city centre or serving edge of city business parks have emerged (e.g. Amsterdam). Massive investment to improve the frequency, speed, comfort and coverage of public transport, at the same time as measures to limit car use, will be needed for such a shift to occur in the case of provincial cities in the UK.

Super-trams in Manchester, Sheffield, and proposed for Leeds combined with the existing LRT system across Tyneside provide examples of significant investment in attempts to improve access by public transport. Each fall well short of a fully integrated public transport network or effective alternative for the majority of car borne movements within the city region.

7.3 Reuse of existing infrastructure capacity

Over recent years growth in environmental concerns and more importantly the privatisation of utilities has limited infrastructure providers ability to simply continue to extend and improve the network. There has been a shift towards what Guy et al (1997) refer to as a 'demand orientated logic' with providers focussing more on infrastructure management rather than network extension. Providers are currently looking into the technical and economic performance of their existing networks to overcome difficulties they face relating to 'hot spots' and 'cold spots' of demand. The days of standardised, expansionary and homogenous services are being replaced with variable tariffs, uneven availability and quality of service.

The emergence of a post privatisation demand orientated logic where infrastructure providers are keen to negotiate better utilisation of their existing networks provides core cities and their regions with an opportunity to work with providers to create new super service zones and limit the roll out of new networks. There is also however, a threat of increased social polarisation. The disadvantaged paying more for services and being forced into the inconvenience of using prepayment or token metres to obtain services, whilst other users in other areas are paying less by direct debit and are offered access to new services and tariffs.

City regions will need to understand the nature of hot spots and cold spots in demand in order to effectively negotiate ways to protect vulnerable individuals and marginalised communities from receiving disadvantage in terms of the cost and quality of services they receive.

There are examples where local authorities in economically prosperous areas have been able to use Section 106 agreements to negotiate with developers higher plot ratios in return for reduced on site car parking and contributions towards public transport infrastructure (e.g. Hounslow Council's agreements with Alfa Laval and Smith Kline Beecham). Significant infrastructure contributions can only be achieved where the development gain is significant. If co-ordination of priorities cannot be achieved at the level of the city region the core cities could lose out as new infrastructure nodes offering greater accessibility or quality of service emerge on the fringes of the main cities or within smaller centres.

7.4 Reuse of redundant land

DETR guidance over recent years has encouraged the production of land use plans which harmonise residential, leisure and business uses and minimise car borne movement. The Government has issued targets for the proportion of new houses to be developed on brown-field land, begun to increase the costs of road transport and constrained the release of green-field sites.

It is theoretically possible that a constraint on the allocation of green-field sites could make inner city sites attractive to developers and investors, since there is some competition between city centre and well-located business park locations in the office market, and between sites suited for

industrial and warehousing uses. It would, however, be difficult to constrain green-field sites sufficiently to push demand onto brown-field sites at a level which would raise values and reduce the subsidy requirements of such sites. Such effects are in any case likely to operate over the long-term rather than the short term. The immediate effect of very tight constraints on green-field development is likely to be to repress demand or, in a few extreme cases, transfer demand to other settlements.

Many sites are severely derelict, have inadequate service provision, inadequate access, are close to run down residential areas, have hope values which exceed market values and so on. Very substantial public sector pump-priming will be needed to secure the redevelopment of some sites.

The successful regeneration of many brown-field sites has been achieved by attracting investment in new private sector housing. In aggregate terms these developments have been small in scale relative to the scale of the investment suggested by the Government brown-field housing targets. UDC and SRB facilitated housing developments have in many cases been targeted at narrow segments of the overall housing market. Schemes which generate more widespread appeal and which, in particular, can bring back middle class families will be needed if the target is to be achieved.

Where regulatory policy may have significant effects on land and property prices in the short term is in the release of green-field sites. Although these will always vary in their relative locational advantages, they are in competition with each other. If developers and investors are to be attracted to such sites, regulatory policy will need to manage the flow of sites available to prevent undersupply closing off opportunities on the demand side, while ensuring that supply is restrained sufficiently to keep values up to make investment worthwhile. This will require a strategic approach to regional property development market management. The demand for a varied array of sites and properties within the conurbation and other urban cores is to be met; subsidy for the regeneration of brown-field sites will be critical, particularly within the conurbation.

7.5   The urban environment challenge

English Partnership's current emphasis on 'Urban Villages' emerges from both the sustainability and regeneration agendas. If sufficient resources are pumped into pockets within the urban area numerous urban villages will be created housing a mix of housing, business and leisure uses. The scale of the task of reversing the tide and encouraging middle class families to abandon their 'rural or leafy suburban goal' is immense.

Billions of pounds on road building, new town development and the roll out of universally available services from utilities has facilitated the middle class flee from the inner cities and increased social, economic and spatial segregation. The proposed £500 million Urban Renaissance fund and the abolition of VAT on refurbishment of buildings in urban areas can only hope to create flagships in an attempt to generate wider confidence amongst developers and middle England.

Good public sector schools, safe places to live and play throughout the urban area are needed alongside the creation of more housing on brown-field sites if 'balanced communities' are to be created and middle class car owners are to be encouraged to live and work in the city.

Table 7.1 turns briefly to one other liability suffered by the core cities' role as a result of their role as the transport hubs and business centres of their regions — atmospheric pollution. Rather little information is available at the city scale, but the figures here do tend to suggest that the core cities are among the more polluted areas in the country. Some of these problems can be traced fairly directly to traffic levels which could only be reduced by substantial investment in public transport.

Table 7.1: Pollution

	Ranking (where 1=most polluted, 20=least polluted) by frequency in 1996 of failing UK standards for air quality in cities (DETR 1998b)	
	Concentrations of particulates	Concentrations of sulphur dioxide
Birmingham	7=	10=
Bristol	9	14=
Leeds	3	5
Liverpool	6	4
Manchester	5	10=
Newcastle	10	1

8.   Governance of the City-region

8.1   Governance and city competition in Europe

A key question in the emergence of competition between cities in the EU is the scope for competitive responses by an individual city, and this largely depends on the nature of the governance system, the freedom of cities to affect those factors underpinning competitiveness, and the ability to act across the whole city-region.

There appear to be distinctive national systems within which cities operate as can be seen by cluster analysis of their performance. Research by Cheshire and Hay showed that, when placed on a grid of population change against scale of urban problem, national clusters of cities could be identified. This suggests that there is something structural about the problems of cities in particular countries, and the concentration of UK core cities in the high problem and declining population part of the grid contrasted with the low problem, population growth quadrant with a concentration of southern French and Northern Italian cities.

Notwithstanding the different outcomes its seems that city-region management creates problems in several countries, and a variety of approaches have been developed to cope with fragmentation.

A recent study by Heinz (1998) examined forms of forms of co-operation and governance at the intra-regional level in seven countries. It was clear from this survey that in most countries there are problems of co-ordination between core cities and their surrounding regions across a range of functions such as housing, job provision, infrastructure and cultural facilities. Consequently a range of co-operation models have been developed such as the 'syndicats intercommunaux à vocation unique' and the 'communautés des communes' in France, inter-local agreements and multi-city metropolitan governments in the US. In Germany a spectrum of agreements exist from single purpose or single function bodies to comprehensive urban or regional administrative unions.

Three different motivations for co-operation were identified (Heinz, 1998):
♦ Functional necessities, where policy delivery required collaboration across local authority boundaries due to the nature of the problem.
♦ Financial problems and disparities, where core cities were expected to provide services for the region on the basis of an inadequate tax base.
♦ Economic competitive strategies, recognising the need to collaborate to effectively address the challenges of competition between city-regions.

The fragmented nature of administration in city-regions seems quite common, although the structure of urban and regional government has seen several significant changes in recent years, mainly towards stronger regional government, which itself provides an opportunity to encourage a more strategic approach to city-region management. In France the policy of decentralisation in 1982/3 strengthened local powers in addition to

establishing new regional councils, so opening up new possibilities for co-operation (Heinz 1998). In Spain also the 1980s saw the emergence of new regional governments, although in the case of Barcelona this went along with the dismantling of an existing metropolitan council. However regional government does not necessarily solve the city-region problem. Benz (1998) points out that several German city-regions are divided between Länder. Some such as Berlin, Bremen and Hamburg are city-Länder, and the outer areas lie in another Land. In other cases, Frankfurt, Cologne and Mannheim for example, the city lies at the edge of a Land, with some of its hinterland over the border. Thus it is common for there to be some collaboration between Länder over local economic strategies. Similar problems have been identified in England in the specific case of Sheffield where some of the hinterland of the city-region lies in the East Midlands region.

Heinz identifies three main types of formal model of collaboration in order of increasing scope:

1) Co-operation in a specific field via formal agreements

Here local authorities establish formal co-operation agreements for particular purposes, and are represented by the 'syndicats intercommunaux à vocation unique' in France and the specific purpose joint authorities in Germany. Such agreements are relatively easy to implement, but have the negative consequence of further fragmenting policy on a sectoral scale and are only indirectly accountable.

2) Multi-sectoral; urban or regional association

Multi-sectoral associations overcome the narrow sectoral problems of the first category and can be structured to provide direct or indirect representation from the member authorities. Examples include the 'metropolitan planning organizations' in the USA, 'syndicats à vocation multiple' in France and 'urban or regional administrative associations' in Germany. Heinz suggests that there are often conflicts between member local authorities, and also with other regional bodies, with overlapping powers between the three levels.

3) Reorganisation of metropolitan region

Finally there may be a formal reorganisation of the metropolitan region with the amalgamation of local government units as in Toronto, or in the creation of new regional public bodies e.g. Rhine Main proposal, and the failed attempt to create strategic bodies for Amsterdam and Rotterdam. Usually there is strong political resistance to such reorganisation, although the UK was successful in such moves in the 1970s with the formation of the metropolitan authorities.

In addition to this pattern of city-region collaboration, we must also recognise a counter-trend towards a more localised and fragmented governance with the emergence of more community involvement, and the establishment of special purpose regeneration partnerships.

8.2 Governance and the English Core Cities

As already noted the English city-regions suffer as a consequence of problems of fragmentation and resource allocation. Core Cities are often too small and inadequately resourced for their regional responsibilities, and there are difficulties of management and negotiation of city-region wide processes and infrastructures. In some cases there are 13 or 14 local authorities covering the city-regions we have defined and these include both metropolitan unitaries and shire districts. To make matters worse there is often competition between the different authorities within a city-region for investment and population, with duplication of economic development strategies which bear little relationship to each other.

The local authority map in the city-regions is then overlaid with other sub-regional and regional bodies such as TECs and the RDAs, plus central government programmes that cover smaller areas that also may cross boundaries. Most city-regions have several TECs – four is not unusual, and these may reinforce the separation and competition between the local authority districts. Relationships with the new RDAs are different again as city-regions are usually part of the RDA territory, although rarely seen as such an integrated system. In two case we have defined city-regions that cross RDA boundaries, arising questions about the coherence of economic strategies in those localities.

What then are the options for a new governance for the cities? Elsewhere new metropolitan-wide authorities have been established that cover a much greater part of the city-region than is typical in England. One option could be to create new city-region authorities, although such modification of local authority boundaries would inevitably be highly contentious and unpopular. Nonetheless, this is what is being introduced in London.

An alternative approach is to develop new city-region partnerships between all the authorities in a city region. These could be voluntary or statutory in nature, although their effectiveness would require that at least the urban authorities adjacent to the core city be fully committed. In many of the cities such partnerships are developing on a function-by-function basis, based around the former metropolitan counties, building on existing statutory committees, but could be further enhanced with central government support.

Finally there is the option for central government to give greater recognition of the core city role in its allocation of resources, both through local government funding and through other forms of public expenditure. By supporting the development of the provincial cities as genuinely alternative poles of economic activity to London and the South East the prospects for a more dynamic UK economy would be enhanced.

9. Conclusions

9.1 A special group of cities

The seven cities covered within this study occupy a special place within the UK urban hierarchy. They clearly act as the dominant centres of their regions, although overall are overshadowed by the dominance of London. Yet together they act as the focal points for city-regions comprising one quarter of the UK population. Within these city-regions they provide a centre of employment, of culture and leisure, and also of regional level services. Yet they also contain some of the most deprived and disadvantaged communities in the UK.

This combination of apparent competitiveness and disadvantage presents challenges for public policy. How can the core cities be reinvigorated as economic motors for their regions and for the wider UK? Are their limitations due to national or urban level problems and what scale of policy intervention is required to make a difference? What is the relationship between the competitiveness of the cities and the growing polarisation between haves and have-nots?

9.2 Summary of key roles in the UK

The seven Core Cities currently occupy a number of key roles for their regions and contribute to the overall competitiveness of the UK. These roles include:

♦ major centres of population and employment
♦ the most significant centres of culture and leisure facilities for their regions
♦ centres of knowledge and learning, especially higher education
♦ core centres of business services with in some cases an important national role
♦ important centres of manufacturing albeit mainly traditional industries
♦ centres of innovation in new cultural industries
♦ important nodes for transport and communications
♦ potential resources of development sites to accommodate growth
♦ a focus for creating positive regional images and centres of tourism
♦ a supportive environment for disadvantaged communities
♦ a focus and potential solution to problems of increasing sustainability

The cities also have a wide range of problems to deal with arising from the polarising tendencies of the move to a knowledge-based economy, and from the opportunities which such cities offer for the disadvantaged in terms of casual work, temporary accommodation and anonymity. This is exacerbated by problems of governance also, with a number of urban processes operating at a city-region level, yet with the consequences and costs being unfairly distributed relative to the revenues of the constituent authorities.

9.3 Potential for a greater role for the Core Cities in UK competitiveness

The future development of the UK city-regions is set within a changing policy context. This includes the forthcoming Urban White Paper in England which is expected to set out a framework to secure an urban renaissance, based on towns and cities which are pleasant, liveable places with all in the community having the opportunity to prosper and realise their full potential. The planning of towns and cities will be a strong theme of the Paper, which will draw on the recommendations of the Urban Task Force. Moreover, programmes such as New Deal for Communities, the reshaped Single Regeneration Budget, Health and Education Action Zones and Employment Zones and Local Agenda 21 Strategies will continue to target areas of need and reshape cities.

Within a European context, it is difficult to see how British core cities can become more 'core' within the framework of Europe. For example, many of the core cities are outside the Trans-European Transport Network (TENS) which are regarded as vital for securing competitiveness. The role of London as a pre-eminent international node also mediates many of the economic relations between the UK and other countries, thereby restricting the potential of the core cities.

Whilst the core cities are placed at the heart of identifiable and competitive regional units, it is less clear the extent to which they can construct local competitive advantages within the globalised economy. The core cities, characterised largely by an industrial legacy, have to compete with new and more dynamic emerging urban areas, especially along the M4 and M3 corridors, which have an advantage in the knowledge economy. One key aspect for cities is to pool resources to maximise their potential in the knowledge economy, and here there is an important role for partnership with central government also to rebuild the knowledge base of the cities and equip them to compete on an international basis.

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11.   Annex

11.1   Defining the UK Core City Regions

Before defining the Core Cities' own city-regions there is the question as to the basis upon which a city can be said to be one of the "core" cities of Britain in the 1990s. A number of studies over the years have tried to identify tiers of cities within an urban hierarchy, of which the most recent and relevant to this report was undertaken by Coombes et al (1997). Table A.1 lists the 16 indicators which they identified as the basis for distinguishing those towns or cities which act as key centres for substantial city-regions. This list of indicators strongly echoes several of the principal concerns rehearsed at the outset of this report — notably the cities' function as centres of administration and higher education, plus their role in various communication networks. Coombes et al analysed the presence or absence of these features and facilities across over 300 towns and cities in Britain and discovered that a majority (9 or more) of the 16 were to be found in 43 British cities and towns. This list of urban centres — drawn rather broadly so as to include a centre in each part of Britain (e.g. Inverness) — provided the starting point for a set of City Region definitions, developed below.

Table A.1: Indicators of Core City status (1995*)

Established status	cathedral (Anglican or Roman Catholic)
	population of 5,000(+) in 1700
	County Hall in 1970
Public services	County Hall or Unitary District Status
	Crown or Sheriff Principal Court
	University central campus
Commerce	Chamber of Commerce central office
	Yellow Pages directory centre
	one of Britain's 60 largest shopping centres
Media	daily newspaper publishing centre
	ITV regional studio
	BBC local or regional radio station centre
Transport	InterCity "principal" station
	airport with scheduled flights
Communications	BT national telephone code area centre
	Postcode Area centre

*all indicators refer to the 1991-5 period unless stated to the contrary

For the focus of this study on *core* cities, a higher level of facility provision is relevant. Such a core city can be expected to boast at least three-quarters of the 16 key features (Table A.1). All the 7 core cities of the interest here do number among the two dozen cities which register 12

or more on this list of indicators, and so can be seen to be genuinely of core city status in this way. If this line of enquiry was pursued further to isolate those core cities which act as centres for major concentrations of population then just a few other candidate cities such as Nottingham would stand comparison with the seven core cities with which this report is concerned.

It is necessary for this study to identify a set of city-regions around the seven core cities. Rather than adopt 'off the shelf' a set of boundaries which were defined for a rather different purpose, this report now provides a new synthesis of several other relevant studies. For example, the work of Coombes et al (1997) in identifying 43 core cities was described above; their study then defined City Region boundaries around these cities. There are two important points to note about those definitions.

♦ Each part of Britain was included in one region — however remote they were from a city — and as a result some of these City Regions stretched over substantial distances and included areas which had only modest links with that city (e.g. the Bristol region extended to Exmoor).

♦ Having identified the 43 cities in advance, each region included just one such city — so some regions' outer boundaries lie close to their core city where there is another city very near (e.g. Bradford was deemed to be separate from Leeds).

By way of contrast, the pioneering research of Hall and Hay (1980), which was mentioned in the conceptual background section of this report, adopted a different approach in that some parts of the country were not included in *any* city's region. Unlike the Coombes et al research, earlier work only looked at commuting linkage to the core cities. A study by Atkins et al (1996) for the Dept of Environment explored the commuting hinterlands of major English cities in the 1990s. Recent research which explicitly sets out to define city region boundaries tends to assume that all parts of the country *should* be included, with some studies not pre-defining a set of separate cities. This approach has become most familiar in the form of the Travel-to-Work Areas (TTWA) definitions (Office for National Statistics & Coombes, 1998), and a study for the City Regions Campaign (1996) applied the TTWA method to produce 52 large labour market regions such that all Britain is included in one and only one region.

Table A.2 summarises the methodological differences between these four key studies which identify the catchment areas of major English cities. This report is not concerned to choose a 'preferred' method, but to draw attention to the widespread agreement as to the area of influence of core cities. The aim is to show that the evidence on commuting flows and other links to cities is so strong that very different methods of analysis produce similar results. To be specific: the four contrasting approaches to region definition produced four different sets of boundaries, each of which reflects a different perspective on the role which cities play in their regions. Table A.2 illustrates this variety by showing the main towns which are grouped with Liverpool by each of the four approaches. For this study, these different perspectives can be brought together so that it

becomes possible, for each core city in turn, to identify which areas were grouped with it by *at least two of the four* key studies. Table A.2's information on Liverpool can be used to see that this method of synthesising the four previous definitions finds that Southport, Skelmersdale, St Helens, Runcorn and Birkenhead — but not Warrington or Chester — are included in the Liverpool city-region here. Table A.3 details the results of this new summary of the evidence on the core cities' regions. Map 1 reveals that this strategy has produced coherent and convincing boundaries for all the cities. It can also be seen that Manchester and Sheffield city-regions include areas in more than one Government Office Region (in both cases due to the inclusion of parts of the East Midlands).

It is worth stressing at this point that this approach to defining city-regions is, if anything, rather conservative. For example, Coventry is not included in Birmingham's city-region despite the strong linkages between the two cities. Even on this basis, the seven city-regions house nearly 14 million people — over a quarter of Britain's total population. The core cities are the engines for the growth of these city-regions and Britain needs this substantial part of the national economy to be contributing fully and not to be hampered by the core cities facing problems which they do not have the resources to address.

Table A.2: Four previous approaches to defining city-regions

	Data used	Core cities pre-defined?	Whole of Britain covered?	Included with Liverpool (selected towns)
Hall & Hay (1980)	1971 commuting	yes	no	Skelmersdale, Birkenhead
Atkins et al (1996)	1991 commuting	yes	yes	Southport, Skelmersdale, St Helens, Warrington, Runcorn, Chester, Birkenhead
City Regions Campaign (1996)	1991 commuting	no	yes	Southport, Skelmersdale, Birkenhead
Coombes et al (1997)	1991 migration and commuting	yes	yes	Southport, Skelmersdale, St Helens, Runcorn

Table A.3: District and Unitary authorities within the Core Cities' city-regions

Core city	Other local authorities in the city-region	Population (millions)	% in core city
Birmingham	Solihull, North Warwickshire, Tamworth, Lichfield, Cannock Chase, South Staffordshire, Wyre Forest, Redditch, Bromsgrove, Dudley, Wolverhampton, Walsall, Sandwell	2.9	32.7
Bristol	South Gloucestershire, Bath & North East Somerset, North Somerset, Mendip	1.0	36.6
Leeds	Wakefield, Kirklees, Calderdale, Bradford, Harrogate, Selby, York	2.3	29.0
Liverpool	Wirral, Sefton, Knowsley, St. Helens, West Lancashire, Halton	1.6	27.7
Manchester	Trafford, Salford, Wigan, Bolton, Bury, Rochdale, Oldham, Tameside, Stockport, Macclesfield, High Peak, Rossendale	2.8	14.5
Newcastle	Gateshead, North Tyneside, South Tyneside, Sunderland, Chester-le-Street, Durham, Derwentside, Tynedale, Castle Morpeth, Blyth Valley, Wansbeck, Alnwick	1.6	16.3
Sheffield	Rotherham, Barnsley, Doncaster, Bassetlaw, Bolsover, North East Derbyshire, Chesterfield	1.6	30.7

11.2   A comparison of the seven core cities and city-regions

Table A.3 includes information on the population of the city-regions defined here. Manchester and Birmingham city-regions are substantially larger than the others, with Leeds emerging as the third most populous. The other northern city-regions (Newcastle, Liverpool and Sheffield) have very similar populations, whilst Bristol is noticeably smaller. Table A.3 also indicates the proportion of each city-region's population who live in the core city. Taking the seven city-regions together just over a quarter of their population lives within one of the core cities, but it is clear that Manchester and Newcastle are very different to the others because less than a sixth of their city-regions' residents live in the cities themselves. It is likely that the 'under-bounding' of those cities is a disadvantage because they are providing services used by a far larger population than that used to determine the availability of funding. This problem for cities with restricted boundaries is more widely recognised in many other countries, where funding systems often recognise the roles cities play on behalf of their regions.

One aspect of 'under-bounding' which has been discussed in Britain for many decades relates to the availability of land for development within a

city's boundary. The inconsistency of the 1974 local government reorganisation which produced these cities' current boundaries has left Leeds and Sheffield as the only core cities with substantial areas of undeveloped land within their borders. Of course, there is often strong resistance to any development in such areas — as Newcastle has recently encountered with its plans for part of its limited area of undeveloped land. A major issue which arises as an outcome of constrained development within cities is the receptivity of adjacent authorities to development. Here again there are some strong contrasts within the seven city-regions — largely reflecting the extent to which some cities are rooted in chronically declining regions. Liverpool and Sheffield city-regions largely embrace towns which have similar levels of economic problems to those of their core cities, so they include rather few areas which are attractive to private sector development. The other northern city-regions — plus Birmingham — include declining areas too but also extend to some favoured localities, although the latter areas include more rural areas, in the Manchester and Birmingham city-regions in particular, where there is substantial resistance to development. Bristol's city-region is largely composed of such prosperous but constrained areas.

11.3   Commuting Linkages

The most readily identifiable form of linkage between core cities and their city-regions is commuting. The advantage of commuting flows is that they have been accurately measured fairly recently — that is, in the 1991 Census — and so they will be examined here in a little detail. Other forms of linkages, such as migration flows or journeys to shop and to access other services, are known to broadly echo the patterns which are evident in commuting flows:

♦ strong flows between city-regions and their core cities;
♦ a consistent net flow *to* core cities (except that for migration the net flow is *from* cities); and
♦ more intense flows among more affluent population groups.

Table A.4 outlines the evidence which lies behind this summary of the commuting linkages between the core cities and their regions. The first row in the table provides a 'benchmark' against which the other figures can be compared. Just over a quarter of Britain's population is shown to live within the seven city-regions defined here, and a very similar proportion of these people live within the core cities themselves. By contrast, the next row shows that when the analysis focuses in on people with jobs, both proportions fall a little below the 25% mark. In other words, unemployment and economic inactivity are more prevalent in these regions than elsewhere in Britain — and joblessness is even more prevalent in the seven core cities than it is in their city-regions overall. Crucial though this difference in employment rates is for the cities' economic dynamism, in percentage terms it can appear to be a relatively minor difference. Table A.4 shows much stronger contrasts between areas when attention turns to the impact of commuting flows. The third row reveals that well over 30% of all jobs in the city-regions are located at workplaces in the core cities: it is the strength of net in-commuting to the

cities which allows them to be the location for approaching a third of the city-regions' jobs while housing less than a quarter of the city-regions' working residents.

Table A.4: Location of jobs and workers

	The 7 city-regions' share of the total for Britain	**The 7 core cities' share of the total for their city-regions**
total population	25.5%	25.9%
Employed residents (at home)	24.5%	24.1%
Location of jobs (at workplaces)	24.7%	32.1%
Professional/managerial jobs	22.8%	35.0%
junior white collar jobs	24.8%	34.8%
blue collar jobs	26.6%	27.0%
	total inflow	**net# inflow**
inflow* to core cities from their city-regions	593,790	393,910
professional/managerial	237,560	161,080
junior white collar	211,280	162,790
blue collar	144,950	70,040

* after grossing up the Census 10% sample

\# after subtracting outflow from inflow

Table A.4 goes on to subdivide the workforce into three groups: those with professional/managerial jobs (SOCs 1-3), those with more junior white-collar jobs (SOCs 4/6/7), and a blue-collar category (SOCs 5/8/9). It is very noticable that the city-regions' share of Britain's jobs is lowest (under 23%) for the well-paid professional/managerial group, and highest for the blue-collar category. At the same time, the core cities' share of the city-regions' jobs is *highest* for the well-paid group. This pattern reflects the tendency for knowledge-based industries and other sectors employing many well-paid workers to be the most likely to locate in cities, whilst manufacturing is just as likely to be found in the surrounding towns. To summarise: high-skill jobs are relatively scarce in the core cities' regions (which are mostly rooted in the traditional industrial regions of the country), but those high-skill jobs which *are* located in these regions are particularly likely to be found in the core cities themselves.

The presence in the cities of higher proportions of jobs for high-skilled people can clearly bring a number of benefits to the cities. At the same

time, workers with well-paid jobs are the most likely to commute longer distances and the result is that many of the cities' professional/managerial jobs are taken by residents of other areas. Table A.4 presents the actual numbers of commuters crossing the boundaries of core cities on a daily basis in 1991 (N.B. all the trend data suggests that these numbers will have grown significantly over the 1990s). Nearly 600,000 jobs in the 7 core cities were taken by residents of other parts of the city-regions as defined here. With a *net* inflow of nearly 400,000 it can be seen that roughly 3 people commute into the cities for every 1 travelling in the opposite direction. Table A.4 also provides the equivalent figures for the three broad occupation groupings set out earlier and it can be seen that the largest contribution to the inflow to the core cities is from the professional/managerial grouping. Yet it is also clear that substantial inflows to the core cities, and indeed substantial *net* inflows, also characterise the commuting patterns of the two less well-paid occupation groupings.