SERC POLICY PAPER 1

Resurgent Cities and Regional Economic Performance

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June 2008

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This paper argues that regional strategies focused on resurgent cities offer an effective strategy for achieving regional growth objectives. The benefits of this growth will, however, be unevenly distributed across both people and places. We discuss the available evidence on both of these issues and consider the tensions that this trade-off will present in the context of changes proposed as part of the Sub-National Review.

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1 Introduction

After a long period of relative decline, a significant number of English cities are experiencing considerably improved economic performance (ODPM, 2006). This paper considers the role that these 'resurgent' cities could play in achieving the objective of raising regional economic growth and of narrowing the gap in growth rates between the poorest and richest regions. On the basis of available evidence, we argue that focusing on these resurgent cities may offer an effective strategy for achieving regional growth objectives. However, it needs to be recognised that this improved regional economic performance may come at a cost in terms of widening spatial disparities within regions. We discuss how the negative effects on some people may be mitigated by encouraging household mobility (either in terms of migration or commuting) and consider the implications for those left behind. Finally we argue that, in the context of the sub-national review, the merger of regional economic and spatial planning has the potential to lead to improved regional strategies, possibly focused around resurgent cities. However, some aspects of the proposed reforms may make it more difficult to agree strategies that are good for regional growth, and for much of the regional population, if they involve an unequal distribution of costs and benefits across places.

2 Resurgent cities

Table 1 is based on data from the State of Cities Database and shows population changes in leading English cities through to 2005. Two things are striking about these figures. The first is the overall improvement in the fortunes of English cities in the last decade. Mid-year population estimates show positive growth over the period 2001 to 2005 in almost all of the cities identified. This is in marked contrast to the experience of the earlier decade, when many cities, particularly the metropolitan areas and those in the north of England saw their populations decline. Population growth has been accompanied by employment growth so that in almost all these cities, the proportion of the working-age population in employment or self-employment increased significantly between 1996 and 2005.

The second notable feature, highlighted by the selection of cities shown in Table 1, is the diversity of recent experience across English cities, particularly within regions: for example compare Manchester to Liverpool and Birkenhead; Newcastle to Sunderland; Leeds to Grimsby. This diversity of experience would also appear if we considered other indicators such as output or employment growth. There are two stylised reactions to these differences in city growth patterns within regions in terms of their implications for meeting regional growth objectives. The first is to suggest that we need to build on regional success stories and that growth in these successful cities will then spillover to benefit other cities in the region. The second, contrasting reaction, argues for a policy focus on less successful cities on the grounds that policy interventions here will be more effective, and moreover, this is where intervention is most needed given that spillover benefits are

limited. Given the strength of conviction of those on both sides of this argument, it is perhaps surprising to find that there is actually little evidence to fully justify either of these assertions. What limited evidence we do have suggests that the proponents of "building on success" strategies are probably right in thinking that this is the most realistic and effective way of delivering on the objective of raising regional growth rates. However, it is possible that they over emphasise the extent to which these benefits may then spillover to surrounding places. In this section, we consider the first of these issues, while the question of spillovers is covered in the next section.

Table 1: Recent Population Growth in a Selection of English Cities

Place	Region	Population: midyear estimate 2005	Average annual growth of population (%)		
			1991-1997	1997-2001	2001-2005
Great Britain		58514000	0.24	0.34	0.46
London	London	8691900	0.44	0.78	0.44
Birmingham	West Midlands	2288800	-0.20	-0.24	0.26
Stoke	West Midlands	363100	-0.05	-0.45	0.04
Manchester	North West	1769300	-0.25	-0.13	0.32
Liverpool	North West	766000	-0.51	-0.52	-0.13
Birkenhead	North West	394000	-0.54	-0.34	-0.16
Newcastle	North East	805000	-0.16	-0.53	0.08
Sunderland	North East	281000	-0.28	-0.54	-0.32
Sheffield	Yorkshire and Humberside	775200	-0.13	-0.20	0.45
Leeds	Yorkshire and Humberside	740700	0.23	-0.02	0.88
Grimsby	Yorkshire and Humberside	159100	-0.27	-0.07	0.17
Nottingham	East Midlands	615700	0.04	-0.32	0.72
Leicester	East Midlands	434300	0.54	-0.12	0.31
Southend	East of England	328100	0.16	-0.08	0.18
Cambridge	East of England	116600	0.22	0.42	1.52
Portsmouth	South East	497700	0.20	0.06	0.41
Oxford	South East	147900	0.56	0.41	2.29
Bristol	South West	658700	0.30	0.42	0.89
Plymouth	South West	246000	-0.34	-0.53	0.53

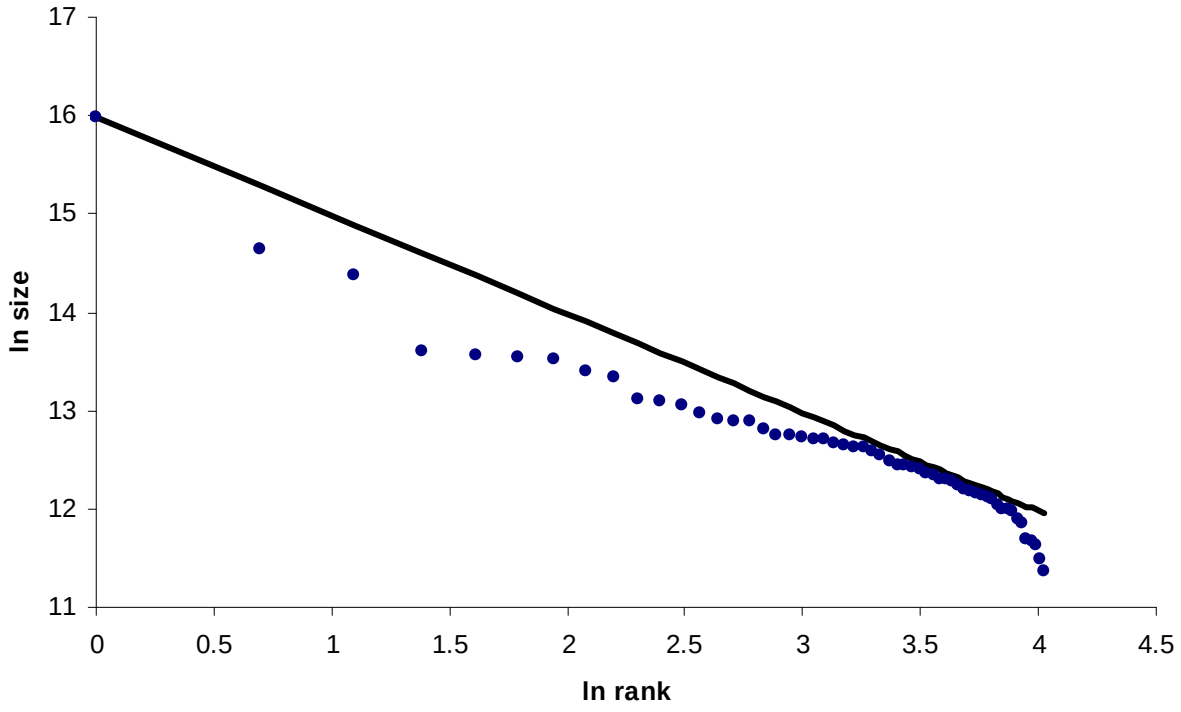
Notes: The table shows population growth for a selection of English Cities chosen to highlight the fact that cities *within* regions show a marked diversity in terms of recent experience. Data is from State of the Cities: http://www.communities.gov.uk/citiesandregions/publicationscities/state/state/]

We can construct an argument for building on the success of resurgent cities as an effective way of raising regional growth rates in two steps. The first is to provide evidence that there is considerable potential for continued growth in these cities. The second is to demonstrate that policy can play an important role in ensuring that these cities achieve this potential. There are three pieces of evidence which provide some support for the first part of the argument: comparison of the English

urban system with that of other countries, consideration of the underlying drivers of city growth, and finally signals from the market provided via land prices. We briefly consider each in turn.

Many factors contribute to determining the size of different cities in different countries at different times. Despite this diversity, statistical analysis for a wide range of countries suggests that the *relative* size of cities often satisfies an empirical regularity known as Zipf's law (Zipf, 1949). A version of this law which is particularly easy to understand is known as the rank-size rule. In a group of cities that obey the rank size rule, the second largest city is half the size of the largest city, the third largest city is a third the size of the largest city etc. An easy way to see whether a group of cities obey the rank size rule is to draw the scatterplot of the (natural) logarithm of city size against the (natural) logarithm of its rank. Starting from the point on the vertical axis that corresponds to the largest city, we then draw a line with slope -1. If the group of cities obeys the rank size rule then all the cities in the group will lie along this line. Numerous cross country studies and comparative international evidence provide support for Zipf's law (see Gabaix and Ioannides, 2004 for a review). A recent study of 73 countries by Soo (2005) finds an average value for the slope of the Zipf line of -1.17 with a standard deviation of 0.26.

Figure 1: Zipf Plot for English Cities Showing England's "Second Tier" Cities are Undersized



Notes: The figure plots mid year 2005 population of English cities against their rank in the urban hierarchy. The fact that the second tier of cities appear to be too small can be seen from observing that they lie below the zipf line (which roughly summarises the relationship between the size and rank of cities that holds across many different countries). In contrast, note that medium-sized cities sit roughly on the zipf line. Data is from the State of the Cities.

Figure 1 shows such a Zipf plot for English Cities. Medium size cities in England are, roughly speaking, about the size Zipf's law would predict given the population of London, the largest city. As can be seen from the plot, the right hand end of the line sits just above points for this set of

cities. But England's "second tier" of cities appear to be too small, as can be seen from the fact that their points lie some way below the Zipf line (a similar point can be made for a few smaller cities at the far right hand side of the figure). It is important to note that this feature is not a consequence of London being 'too large'. If we had predicted the population of England's largest city by drawing the Zipf line through the medium size cities and projecting to the y-axis then we would obtain a figure not much different from that of the actual population of London. Of course, such a simplistic exercise comes with a number of important caveats (not least the fact that Zipf's law need not necessarily hold for English cities and that the exact definition of urban areas will affect the relative size of urban areas). But, the Zipf plot is at least indicative of the fact that, for England, second tier cities may be too small. One might reasonably argue that confining attention to English cities alone is inappropriate in this context, but this is immaterial as it turns out that a plot of urban area population data for the whole of the UK reveals essentially the same features.

The second piece of evidence that points in a similar direction concerns the underlying drivers of city growth. Economic activity is very unevenly distributed across space. It is inconceivable that this marked unevenness can be explained by appealing purely to inherent differences in physical geography (e.g. climate or natural resources). Instead, it must be that, over time, the workings of the economic system amplify and reinforce differences to generate historically persistent patterns of spatial disparity. For this to happen there must be self-reinforcing benefits from the spatial concentration of activity. Economic analysis identifies a number of possible mechanisms that may give rise to these agglomeration economies (or externalities). In a world of economies of scale in production and trade costs, firms reduce their costs by locating close to their large markets. Added to this, large markets often operate more efficiently than small markets. For example, the larger the pool of labour that a firm can access, the more likely it is to find the skills that precisely match its production requirements. At the same time, workers are more willing to invest in acquiring specialist skills if they are able to access many potential users of these skills. Finally, knowledge spillovers - through labour mobility, by face-to-face social contact between workers, or by observing the practices of other firms - are easier between proximate firms than remote ones. Moreover, what little evidence there is indicates that these agglomeration economies operate over relatively small spatial scales, favouring dense highly urbanised environments (Graham, 2007; Rice et al, 2006).

Of course, there are a number of costs from agglomeration that work to offset these benefits. As economic activity concentrates, the price of scare resources, such as land, increases. The greater number of firms increases competition and reduces profitability. Finally there are the negative externalities associated with greater congestion of roads and public transport and increased pollution. In a modern economy, it is the trade-off between these costs and benefits that determines which areas are rich and which are poor; which grow fast and which grow slowly. Technological change, globalisation, government policy and a host of other factors lead to changes in these costs and benefits and hence the nature of this trade-off, with fundamental implications for the economic geography of modern economies. The response to these changes is not instantaneous but rather plays out over many years as people and organisations slowly adjust to the different forces at work. There is some limited evidence for the UK (and a larger amount of international evidence) which suggests that structural shifts in the economy are currently strengthening the agglomeration economies that underlie the growth of resurgent cities. The shift from manufacturing to services is one important change because, as shown in table 2 and documented in Graham (2007), UK service industries generally benefit much more than manufacturing from being located in larger urbanised environments. In addition, the general rise in

skill levels has increased the benefits to employers and workers of locating in thick labour markets. This effect is compounded by the greater prevalence of dual-earner households in which two adults are seeking skilled employment. Other changes have contributed to a strengthening of agglomeration effects including the shift from rail to road and the increasing use of information communication technologies. See Leunig and Overman (2008) and Ioannides, Overman, Rossi-Hansberg and Schmidheiny (2008) for further discussion and evidence. It is these shifts that most likely explain much of the growth that we are seeing in resurgent cities and that may well continue to drive growth in these cities as the agglomeration externalities underlying their economies continue to strengthen. Again, the evidence is far from conclusive, but it does point to reasons to expect increasing growth for second tier cities.

Table 2: Agglomeration economies for different types of activities

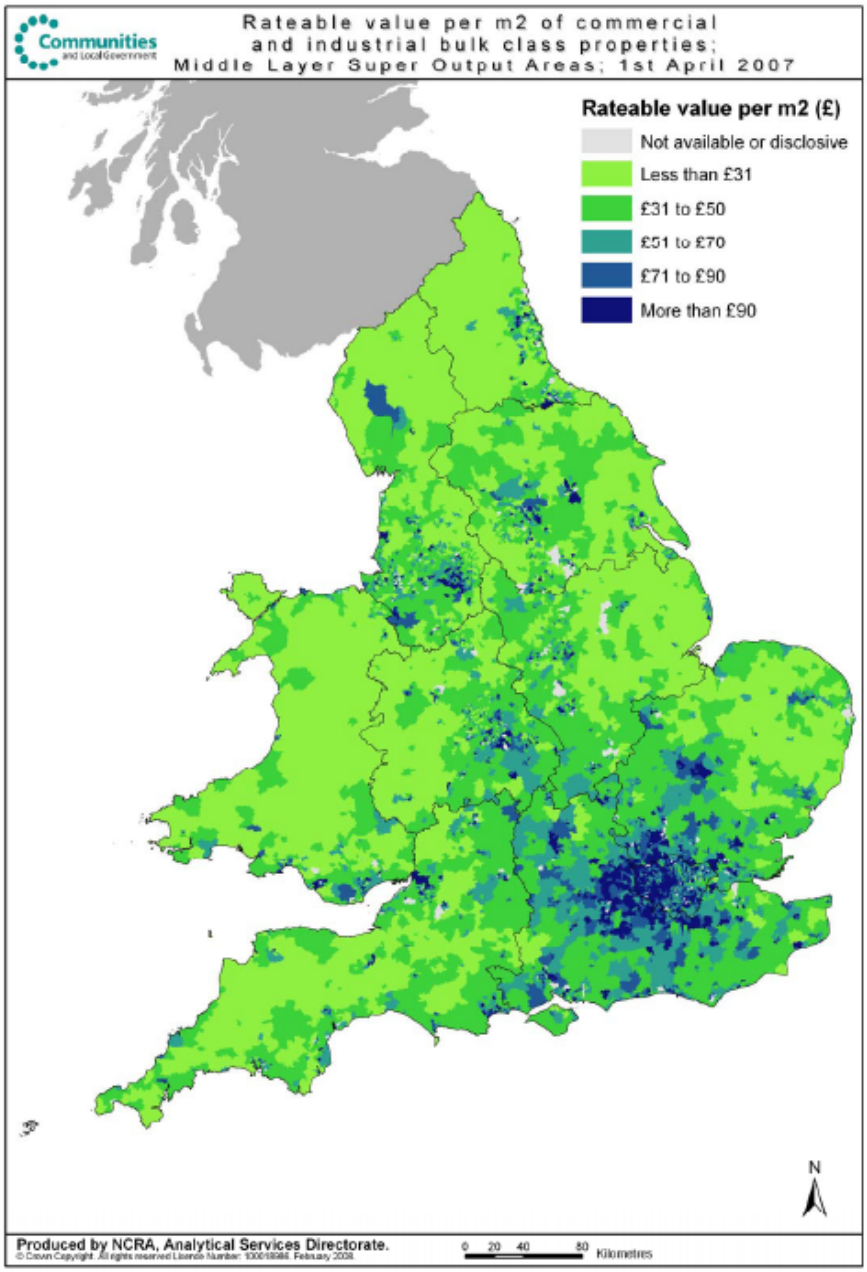
Industry Group	Agglomeration Elasticity
Manufacturing	
Manufacture of food products and beverages	0.084
Manufacture of wood and wood products	0.069
Publishing, printing and reproduction of media	0.105
Manufacture of radio, television and communication	0.382
Employment weighted average *all* manufacturing	0.077
Services	
Wholesale and retail	0.041
Hotels and restaurants	0.224
Transport services	0.325
Finance and insurance	0.251
Real estate	0.034
Business and management consultancy	0.298
Architecture and engineering	0.066
Advertising	0.137
Public services	0.292
Motion picture, video and TV	0.222
Employment weighted average *all* services	0.197

Notes: The table reports urbanisation agglomeration economies (i.e. based on effective density of all activity) that are estimated as positive and significant in the UK. Based on Table 2 and Table 4 in Graham (2007). The averages are employment weighted averages based on all industry groupings. Based on these weighted averages, one can see that the shift in the UK economy from manufacturing to service activities increases the importance of agglomeration economies.

The final piece of evidence that points in the same direction comes from considering spatial differences in the price of commercial and residential land. These prices indicate the amount that firms and workers are willing to pay to produce and work in different places. As figure 3 indicates for commercial land, these prices show an incredible amount of variation across space. Of course supply, as well as demand from firms and households, is a key determinant of the price of land. In some circumstances, land prices will be high because of the existence of an unexpandable natural local amenity, for example, a seaview or beautiful countryside, that makes an area desirable. These local amenities will explain some of the high land prices in rural areas that are visible in figure 3. But across urban areas, spatial variations in prices are less likely to be driven by natural amenities, instead, they tend to reflect the fact that the supply of land is heavily restricted in the areas which are experiencing the strongest increases in demand for land. This is most obvious in

London and the South East, but also applies within regions where we see that the price of land in some cities is significantly above that of other cities in the region. We would reach a similar conclusion if we considered residential land, although the picture is complicated by both the role of natural amenities and peoples' commuting patterns.

Figure 3: The UK has very marked spatial variations in land prices



Notes: Source CLG/ONS Statistical Release (February 2008): Floorspace and rateable value of commercial and industrial properties - 1 April 2007, England and Wales. A number of factors determine rateable value, but one can reasonably expect spatial variations in rateable value to be quite highly correlated with spatial variations in land values.

Land prices, like the prices of other goods and services, are useful to policy makers because they provide a signal telling us where millions of individuals want to live and work. In many markets,

there is a very strong case for simply following these signals, but this is not the case when it comes to land use for the simple reason that individual decisions on land use impose externalities on other individuals. When houses are built in previously undeveloped areas, it negatively affects those individuals who currently derive benefit from this undeveloped land (perhaps because they use it for recreation or because their houses overlook it, etc). Fundamentally, the planning system exists to ensure that these externalities are taken in to account when making decisions about land use. Unfortunately, for a variety of reasons, there has been a historical tendency for spatial planning in the UK to go to the other extreme when it comes to market signals. That is, to all but ignore prices when making decisions on land use (Barker, 2006).

A set of regional strategies based around resurgent cities could make use of these price signals to identify areas within each region with the strongest potential for market led growth. The main role of policy is then to ensure that conditions prevail that allow this potential to be achieved. Possibly the most important policy decisions will be around planning, ensuring that land is made readily available for new or altered commercial and residential uses in these resurgent cities. But many other policy areas, including the planning of transport and utilities infrastructure, the provision of skills training and support to businesses may all need to play a role.

To summarise, on the basis of the limited evidence available, it would appear that (i) international comparison suggests second tier cities in the UK may be too small; (ii) due to the changing structure of the economy, the appropriate size of these second tier cities is probably growing and is likely to continue to grow; (iii) market price signals indicate that of all available locations in each region, certain resurgent cities are the ones that are preferred by both households and firms. The observation that the UK's second tier of cities may be too small does not imply that the policy focus should be on all those locations that currently fill these positions in the ranking. That is, the ranking of UK cities should not be regarded as immutable. The strategy should, instead, be directed to those cities for which market signals (e.g. land prices) suggest the greatest potential for productivity gains through growth. This may imply that some medium-size cities overtake the traditional second-tier cities in the longer term. Finally, regional strategies that focus on resurgent cities outside of the South East are inevitably working against market forces at the national level (otherwise it would not be necessary to intervene to achieve regional growth objectives), but they are at least working with market forces within regions. It is for all these reasons that we conclude that focusing on resurgent cities may offer the best chance of meeting the regional economic performance target of raising growth in each region. But what would such a policy imply for areas within the region that are performing less well? This is the question to which we now turn.

3 Linkages

Suppose one follows the strategy of focusing on the resurgent cities and succeeds in improving their economic performance still further, what are the implications for the rest of the region? Are the proponents of this strategy correct in their assertion that the benefits will spillover to the surrounding areas? Unfortunately, this question is difficult to answer, because the evidence on the specific nature of the linkages between places is even more limited than that relating to the role of

cities in regional economic growth. We start by considering what we know about effects at the small spatial scale within cities before moving to consider the linkages between different urban areas.

If resurgent cities succeed in attracting more economically successful firms and people, what impact may this have on their more deprived residents? One view is that disadvantaged households gain from being located in "mixed communities" and that this provides one channel through which benefits of city growth might spillover to more deprived groups. Unfortunately, several factors urge caution in the extent to which this will occur. As discussed in Cheshire, Gibbons and Gordon (2008), the evidence base for neighbourhood effects (one key source of potential benefits from mixed communities) is actually fairly inconclusive. Even if such effects are significant, the extent to which communities become mixed as cities grow is limited by the tendency of households to sort themselves into different neighbourhoods according to their level of income. Policy makers often try to address the sorting issue by forcing the mixing of communities through the selective provision of different housing types within neighbourhoods. Again there is limited evidence that such policies achieve mixed communities in the long term, as opposed to providing a one-off subsidy to a particular cohort of households. Moreover, to the extent that such policies achieve their objective, they may make it more difficult for cities to attract those firms and individuals who do not want to locate in such mixed communities. This points to a specific issue for resurgent cities who set out to raise the quality of their housing portfolio in order to attract or retain more skilled workers. In short, for a given investment in new housing provision, there is almost certainly a trade-off between the development of mixed communities and a city's ability to attract and retain more skilled workers. In the absence of strong and compelling evidence that mixing communities actually generate benefits for their more deprived members, we may want to err on the side of caution when drawing up regional strategies, at least in less well performing regions.

What about spillover benefits from less to more deprived areas at the level of the urban area as a whole? There is a large theoretical literature that argues that attracting high skilled workers to a city has positive spillover effects on the productivity of the lower skilled workforce. A number of mechanisms have been suggested. The simplest is that low skilled workers learn through formal and informal interactions with more highly skilled workers. An alternative argument is that greater numbers of highly skilled workers lead to higher levels of investment, and that this also raises the productivity of lower skilled workers. How important are these effects empirically? As a starting point, it is useful to remind ourselves that even in London, our most economically successful city, the Index of Multiple Deprivation 2007 (CLG, 2008) tells us that there are many deprived areas. This observation would carry over to most other urban areas, particularly in regions outside of the South East of England. This doesn't mean that there are no spillover benefits across urban areas, but it does caution us against expecting too much from these spillovers. Again, the direct empirical evidence on the extent of these effects is mixed and the literature is certainly not as extensive as the neighbourhood effects literature that we discuss above (it is also mostly based on US data). Moretti (2004) in his recent overview of the literature concludes that, on balance, there is likely to be some beneficial spillover at the level of urban areas, but that it is still too early to be able to draw evidence on the size of any such spillovers.

This discussion urges caution about the extent to which attracting economically successful (e.g. high skilled) individuals to resurgent cities will provide spillover benefits to less skilled individuals living in deprived neighbourhoods within those cities. Given this, the primary focus probably needs to be on maximising the direct benefits to such individuals of increased economic opportunities as

the local economy expands and demand for local services increases. This is further complicated, when it comes to spatial economic policy, once we recognise that individuals whose economic prosperity improves may choose to react to this by moving out of their deprived neighbourhoods. In terms of dispersion in measures of neighbourhood deprivation, this would certainly lead to a worse outcome than if the individuals whose prosperity improves choose to stay put. However, it is the impact on people rather than places that should be the primary concern and evaluation of alternative outcomes should be based on the well-being of the people affected. In this case, we should assess the direct benefit to the individuals who move (in terms of increased incomes, better neighbourhoods) and compare these to the costs to those individuals who remain. As we have argued above, the literature suggests that the spillover effects due to changing neighbourhood composition are unlikely to be that large, so the focus should be on the direct impact on wages and the cost of living. Assessing outcomes when individuals move between places brings us to the broader question of what determines the nature of the economic linkages between places. It is to this literature that we now turn.

Economic linkages between places work through three main channels. First, firms buy and sell goods and services across space. Second, workers can live in one place and commute to another place. Third, workers and firms can move between places. A general analysis of the implications of these channels for the nature of linkages between places is beyond the scope of this paper. But it is useful to think through their implications in the specific circumstances where we might encourage growth in a resurgent city located in a region with other urban areas that are not performing as well.

The role of supply and demand linkages between firms has been emphasised by proponents of the New Economic Geography (Fujita, Krugman, Venables, 1999). If we ignore, for the moment, the possibility that firms and workers can move between locations then expanding the number of firms operating in the resurgent city has two contrasting effects on firms elsewhere. To the extent that these new or expanded firms increase their demand for goods and services from elsewhere this will provide a positive linkage between places. At the same time, lower production costs and increased competition among firms in the resurgent city may lead to cheaper sources of inputs for firms located in other parts of the region. Again, this effect will provide a positive linkage between places. However, if these new or expanded firms compete for customers with firms located elsewhere then this will work in the opposite direction and imply a negative linkage between places. In reality, both the positive and negative linkage will be at work and the impact on firms elsewhere is theoretically ambiguous. We do not know of any literature that has been able to measure the relative strength of these two different effects empirically, although there is evidence that the balance of these two forces helps determine the wages that firms are able to pay in different locations (Redding and Venables 2004).

As economic activity concentrates in the resurgent city, these demand and supply “linkages” change the relative profits that firms can make in different locations in the region. Other economic forces also come in to play. Agglomeration economies working through thick labour markets or knowledge spillovers between firms further increase firm profitability in the resurgent city as the amount of activity there expands. Offsetting this, increased competition in the markets for their goods and services can decrease the profits of individual firms as the overall number of firms expands. In addition, increased competition for scarce local resources (particularly workers and land) drive up firms’ costs in the resurgent city as the number of firms expands. If the combined effects of greater agglomeration economies (better access to suppliers and customers, better

labour markets, increased knowledge spillovers) outweigh the effects of increased competition and increased costs of doing business in the expanding city then growth in the resurgent city can be self reinforcing.

What happens to other locations in the region as firms and workers are drawn to the resurgent city? This depends on where these firms and workers are coming from. If they are coming from outside the region then the effect on firms in other cities depends on the balance between the positive demand and supply effects and the increased competition in their own market. If the resurgent city is expanding by drawing firms and workers from other cities within regions then we must not only take into account these demand and supply effects, but also recognise that other locations within the region are getting smaller as workers and firms move to the resurgent city. According to conventional textbook economic analysis, the increase in the supply of labour to the resurgent city tends to reduce wages and increase house prices and other living costs. Elsewhere in the region, wages increase and house prices are expected to fall as the population declines. The net result is that real wages in the resurgent city fall relative to those in other cities in the region and this reduces the incentives for further migration. However, if agglomeration economies are sufficiently strong then the impact of migration on wages can be very different. As the population of the resurgent city grows then productivity and hence wages increase still further, while declining population in other cities of the region leads to lower productivity and wages. Whether or not we regard this as a good thing will depend on whether we look through the prism of people or places. If we focus on places, what we tend to see is population, wages and house prices increasing in the more successful resurgent city and falling in the less successful cities (Overman, Rice, Venables, 2008). This clearly looks pretty bad if you are a policy maker representing the less successful city where wages and house prices are falling (and vice versa for policy makers in the more successful city).

If the outcome is clear from a place perspective, what about from the perspective of the people who live in these different places? The answer to this question is much more nuanced. Within the resurgent city, the increase in wages on average more than offsets the increase in housing (and other living) costs. Average real wages and hence living standards are higher – if this were not the case then workers would not be moving to the expanding city. However, this is not to say that everyone is better-off as a result of the changes. Individuals who remain outside the labour market and are dependent on fixed incomes from the state or other sources may be worse-off due to rising housing costs. This is one of the reasons why deprivation measures can be high in high housing cost cities. Rising housing costs may lead to worse outcomes also for those workers, like nurses and teachers, whose wages are set nationally and are not very responsive to changes in local economic conditions. This effect is partly responsible for the “affordability” issues that face low paid public sector workers who live in expensive cities. In other words, in terms of the people resident in the resurgent city, the picture is much more mixed than the aggregate wage and house price data might suggest.

In the cities that are losing firms and population, this story of winners and losers is repeated. Individuals who move to the expanding city are better off because their real wage rises. For those workers who are unable or unwilling to move, wages are lower. Lower housing costs may partially offset the effects of lower wages for some, but the consequences of lower house prices will vary across households depending on whether or not they own their home. Finally, in the reverse of what happens in the resurgent city, workers outside the labour market or on fixed wages may

actually be better of as their costs of living fall. This, in turn, reduces the incentives for these groups to relocate to the resurgent city where demand for their services is increasing.

As is the case for the majority of significant economic changes, the story is one of gainers and losers. However, it is important to remember that the net result of the increased spatial concentration of economic activity is likely to be higher productivity and higher real income for the region as a whole. Hence, from the perspective of the region as a whole, the benefits to the gainers should outweigh the costs to the losers. We return to this issue below.

An alternative to both people and firms moving to the resurgent city is that firms move, but workers stay put and commute. Commuting, rather than relocating, may dampen the positive effects on wages and house prices in the resurgent city and the negative effects in the less successful cities. It is for this reason that some commentators focus on improving transport networks as a means of "spreading out" the benefits from growth in resurgent cities (Lucci and Hildreth, 2008). There are a number of caveats to this conclusion, however. First, as considered in detail in New Economic Geography models, lower transport costs change the balance between agglomeration and dispersion forces in ways that can often encourage firms to move into the expanding market and serve their customers from there. Second, encouraging large scale commuting between places may not help with environmental impacts, specifically regarding carbon emissions and global warming. Third if large commuting flows are driven by the fact that housing supply is unresponsive in growing cities (perhaps as a deliberate result of policy) then this will have the effect of making some people living in less successful places worse off – namely those who would have chosen to move in the absence of the restriction on housing supply but now opt to commute. Restricting housing supply actually restricts the extent that *people* in other places can benefit from the resurgent city even if helps protect those *places* from falling wages and house prices.

Looking longer term, agglomeration economies are not infinite, and at some population size, the benefits to firms and workers from further increases in population and economic activity in the resurgent city will be outweighed by the higher costs of scarce resources, particularly land, congestion and pollution etc. From this point, further expansion of economic activity should switch to other areas of the region. Indeed, this pattern of development is clearly visible in London and the Greater South East.

How much do we know about how all of these different effects play out in practice? The answer is, unfortunately, very little. On balance, the evidence suggests that regional strategies based around resurgent cities are most likely to deliver on regional growth objectives. Further, it is highly likely that the overall benefits to people who move to, or commute to, the resurgent city will outweigh the losses to people who are unwilling or unable to do so. But as the discussion in this section makes clear, new evidence will be needed to help quantify the magnitudes of gains and loses to different people in different places. On the basis of what we currently know, however, it is likely that there will be winners and losers to such a strategy, even if the size of any effects remains unknown. As the next section makes clear, changes to the way in which regional strategies will be drawn up make it more likely that such a strategy could be successfully implemented. But changes to the way in which regional strategies will be approved, and the existence of winners and losers, make it less likely that regions will choose to do so.

4 "Resurgent city" regional strategies and the sub-national review

The recent review of sub-national economic development and regeneration (widely referred to as the sub-national review or SNR) proposes a number of changes which have implications for the role that resurgent cities might play in meeting regional growth objectives. Two changes are likely to be particularly important. First, is the proposal that currently separate Regional Economic Strategies and Regional Spatial Strategies be incorporated in to a single Regional Strategy which will set out economic, environmental and social objectives for the region. Thus, these integrated regional strategies bring together economic development and planning strategies. According to the Barker Review of Land Use Planning (Barker, 2006) and the Eddington Transport Study (Eddington, 2006) planning of housing and commercial land and of transport and utilities of infrastructure are vital to support productivity and economic growth. This suggests that planning decisions on land use and transport (currently covered by spatial strategies) are strong policy levers that sub-national governments have at their disposal to affect regional growth (currently covered by economic strategies), so more integration clearly makes sense. This is especially the case for resurgent cities where, as discussed above, planning decisions will be key to both implementation and the extent to which people located in other areas are able to benefit from the resulting growth.

A second change is likely to work in the opposite direction, however. This is the proposal that the resulting integrated regional strategies will need to be agreed by a leaders forum representing local authorities in the region. This clearly has advantages in terms of legitimising and democratising the regional strategy. But as we have just discussed, the distribution of gains and losses from a resurgent city type regional strategy are unequally spatially distributed across both people and places. If gains do come to neighbouring areas, they may take some time to realise. This may make such a policy very hard to pass for leaders who represent places that lose, even if there may be significant gains for some of the population currently living in these places.

If the evidence is correct that resurgent city strategies are likely to help deliver on regional growth objectives, and if this is the primary objective, are there things that can be done to increase the likelihood of such a strategy being implemented? From the discussion so far, it should be clear that the economic mechanisms for spreading the benefits of such a strategy across other places in the region may be limited (even if these policies will benefit people who currently live in these other places). We also know that there are winners and losers within cities and that, again, the economic mechanisms for spreading the benefits widely are limited. There are measures that can be implemented that wshould help mitigate the extent of gains and losses associated with a resurgent city strategy. As we have seen, the individuals most affected by such policies are those whose incomes are unresponsive to changes in local economic conditions, for example public sector workers whose pay is set at the national level. The last decade has seen a move towards greater flexibility through cost-of-living adjustments, bonus payments, pay grade flexibility, but the evidence suggests that spatial wage differentials for public sector employees remains much less than for their private sector counterparts (Frontier Economics, 2003)

For an economist, the obvious response to the wider issue of gainers and losers, is to look for mechanisms that would allow the gainers to compensate the losers. Unfortunately, such mechanisms are not readily available in the context of regional strategies. One classic mechanism would involve fiscal transfers, but local government benefits very little in fiscal terms from growth in their areas and no mechanism for transferring the fiscal benefits of such growth across local government are currently available. Multi-Area Agreements, as proposed by the sub-national review, might go some way to addressing this, but given their likely spatial composition (e.g. neighbouring local authorities within city regions) these will be better placed to deal with issues of the uneven spatial gains within resurgent cities rather than between resurgent cities and elsewhere. Of course, there may be some scope for redressing spatial unevenness within the Regional Strategy itself. But this requires that the plan makes explicit which locations within the region are expected to be worse off as a result, and this might be very hard to sell to the local politicians from places set to lose, even if there are significant gains for a proportion of their electorate. In short, the place based nature of local authorities will make it hard for their leaders to sign off on a set of regional strategies that are most likely to deliver on the regional growth objectives and there are relatively few mechanisms in place that could potentially help address this.

5 Conclusions

This paper has argued that regional strategies based around resurgent cities may offer the best hope of delivering on regional growth objectives. The benefits of this growth will, however, be unevenly distributed across both people and places. What is most evident from this discussion is the paucity of the evidence base and the need for more work to understand and quantify these effects. A second issue that comes across strongly from this discussion is the tension between the impact of policy on people and that on places. At both levels there are expected to be gainers and losers. We have outlined mechanisms that can mitigate these effects for individuals, for example improving the responsiveness of incomes to local economic conditions. At the same time, thought needs to be given to developing mechanisms whereby local authorities whose economies may not do as well from this strategy are compensated for this, in the hope that it will encourage them to agree to regional strategies that are good for their electorate even if not so good for them.

References

Barker, K. (2006) *Barker Review of Land Use Planning; Final Report – Recommendations.* London: HMSO.

Cheshire, P., S. Gibbons and I. Gordon (2008) “Policies for mixed communities: A critical evaluation” SERC policy paper no 2.

CLG (2008) *The English Indices of Deprivation 2007.* Communities and Local Government: London.

Frontier Economics (2003) “Southern discomfort: setting pay in the public sector” Bulletin, April.

Fujita, M. , Krugman, P. And A.J. Venables (1999), *The Spatial Economy: Cities, Regions and International Trade*. MIT press.

Gabaix, X and Y.M. Ioannides. (2004), “The Evolution of City Size Distributions”. In J. V. Henderson and J. Thisse (eds), *Handbook of Regional and Urban Economics*, vol 4.

Graham, D. (2007) “Agglomeration, productivity and transport investment” *Journal of Transport Economics and Policy,* 41(3).

Ioannides, Y., H. G. Overman, E. Rossi-Hansberg and K. Schmidheiny (2008) “The effect of information and communication technologies on urban structure”. *Economic Policy*, 54.

Leunig, T. and H. G. Overman (2008) “Spatial patterns of development and the British housing market”. *Oxford Review of Economic Policy,* forthcoming.

Lucci, P and P. Hildreth (2008) *City Links: Integration and Isolation.* Centre for Cities: London.

Moretti, E. (2004), “Human capital externalities in cities”. In J. V. Henderson and J. Thisse (eds), *Handbook of Regional and Urban Economics*, vol 4, ch. 51, 2244-2289.

ODPM (2006) *State of the Cities Report*. Office of the Deputy Prime Minister: London.

Overman, H. G., Rice, P.G and A.J. Venables (2008) “Economic linkages across space” CEPR Discussion Paper no 6786.

Redding, S. J. and A. J. Venables (2004) “Economic Geography and International Inequality”, *Journal of International Economics*, 62(1), 2004, 53‐82.

Rice, P., Venables, A.J. and E. Patacchini (2006) “Spatial determinants of productivity: Analysis for the regions of Great Britain”, *Regional Science and Urban Economics,* 36, 727-752.

Soo, K.T. (2005) “Zipf's law for cities: a cross-country investigation”, *Regional Science and Urban Economics,* 35(3), pp. 239-263

Zipf, George K. (1949). *Human Behavior and the Principle of Least Effort.* Addison–Wesley, Cambridge, MA.

A1 Resurgent cities and Economic Development in Wales

In the context of the English regions, Overman and Rice (2008) consider the role that 'resurgent' cities could play in achieving the objective of raising regional economic growth and of narrowing the gap in growth rates between the poorest and richest regions. This web appendix considers the extent to which these lessons might apply for economic development in Wales.

Population changes in English cities reflect an improvement in the fortunes of English Cities in the last decade. They also show a large diversity of experience across English Cities. This diversity would be reflected in other indicators such as output or employment growth. Data for Wales, presented in table 1, show the same higher population growth in the last decade for three out of four of the largest cities, but they don't show the same diversity of experience across cities. One possible explanation for this difference is the lack of a large city in Wales (WAG, 2005, highlights this as a possible explanation of lower earnings in Wales). Another is that in the context of the Welsh economy, the differences in population growth might be more strongly reflected if we looked at smaller places relative to these four larger cities. On the basis of population figures alone, however, the argument in favour of focusing on a particularl resurgent city is less clear cut for the Welsh economy.

Table 1: Recent Population Growth in a Selection of Welsh Cities

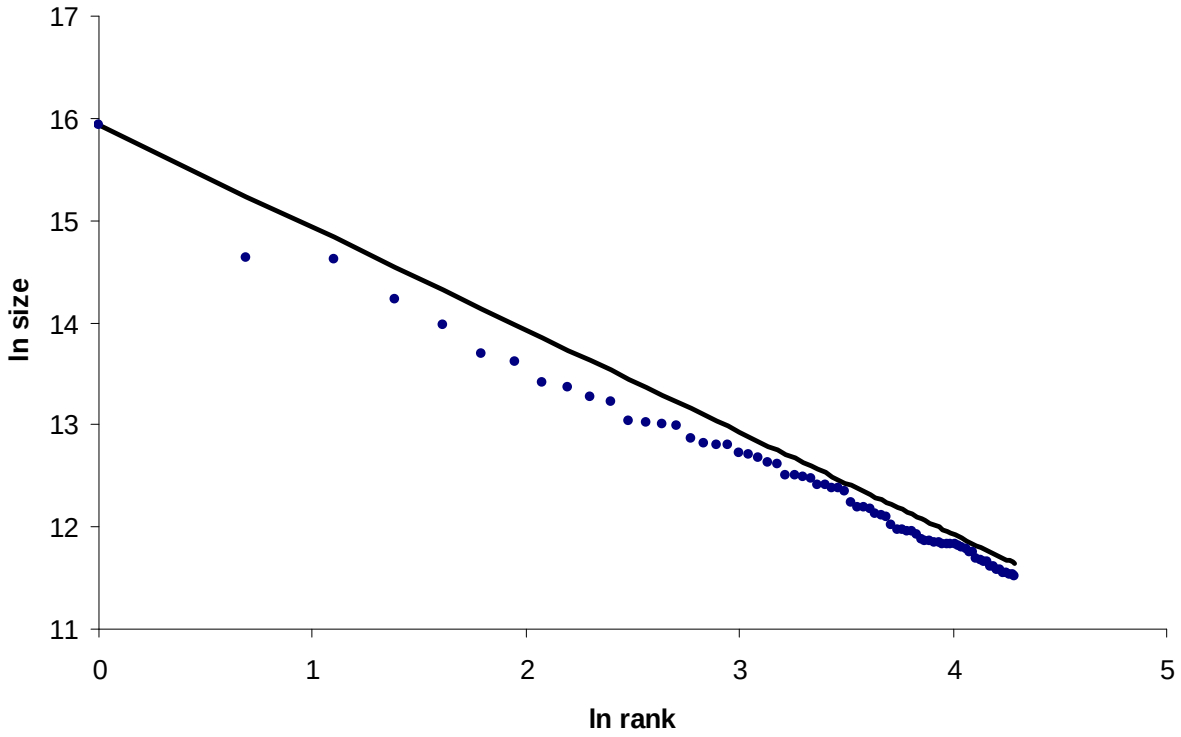
Place	Local Authority	Population: midyear estimate 2005	Average annual growth of population (%)		
			1991-1997	1997-2001	2001-2005
Cardiff	Cardiff	314,145	0.57	0.22	0.33
Swansea	Swansea	226,418	-0.22	-0.37	0.33
Newport	Newport	139,780	-0.03	0.44	0.39
Wrexham	Wrexham	130,248	0.19	0.57	0.33

Source: Office for National Statistics (crown copyright).

What about in terms of the other pieces of evidence that Overman and Rice (2008) present in favour of a resurgent city strategy? The first of these involved a Zipf plot of the (natural) logarithm of city size against the (natural) logarithm of its rank. In many countries the slope of this Zipf plot is close to one, so it can be used as a simple way of making international comparisons. The figure in Overman and Rice used English cities only. Figure 1 in this appendix presents the same plot, but now for the whole of the UK. Again, one sees that second tier cities appear to be proportionately further below the Zipf line than medium size cities at the lower end of the size distribution hinting at the fact that second tier cities might be undersized on the basis of international comparison. Looking behind the numbers, however, we see that Welsh cities are part of the group of medium size cities that sit close to the Zipf line (e.g. Cardiff's log rank is 3.044, Swanseas 3.218), rather than part of the group of second tier cities that might be undersized. In a UK context, Welsh cities don't look particularly undersized on the basis of this simple international comparison. That said, if

we apply the rank size rule *within* Wales, we would expect the population of Cardiff to be twice that of Swansea, three times that of Newport and four times that of Wrexham. This suggests a population for Cardiff of around 450,000, considerably larger than the 314,000 reported in table 1. Of course, such a simplistic exercise should not be taken too seriously, especially because one might reasonably argue that Cardiff and Newport are part of the same functional urban area, making them roughly the "right size" even within the context of Wales.

Figure 1: Zipf Plot for UK Cities Showing UK's "Second Tier" Cities are Undersized



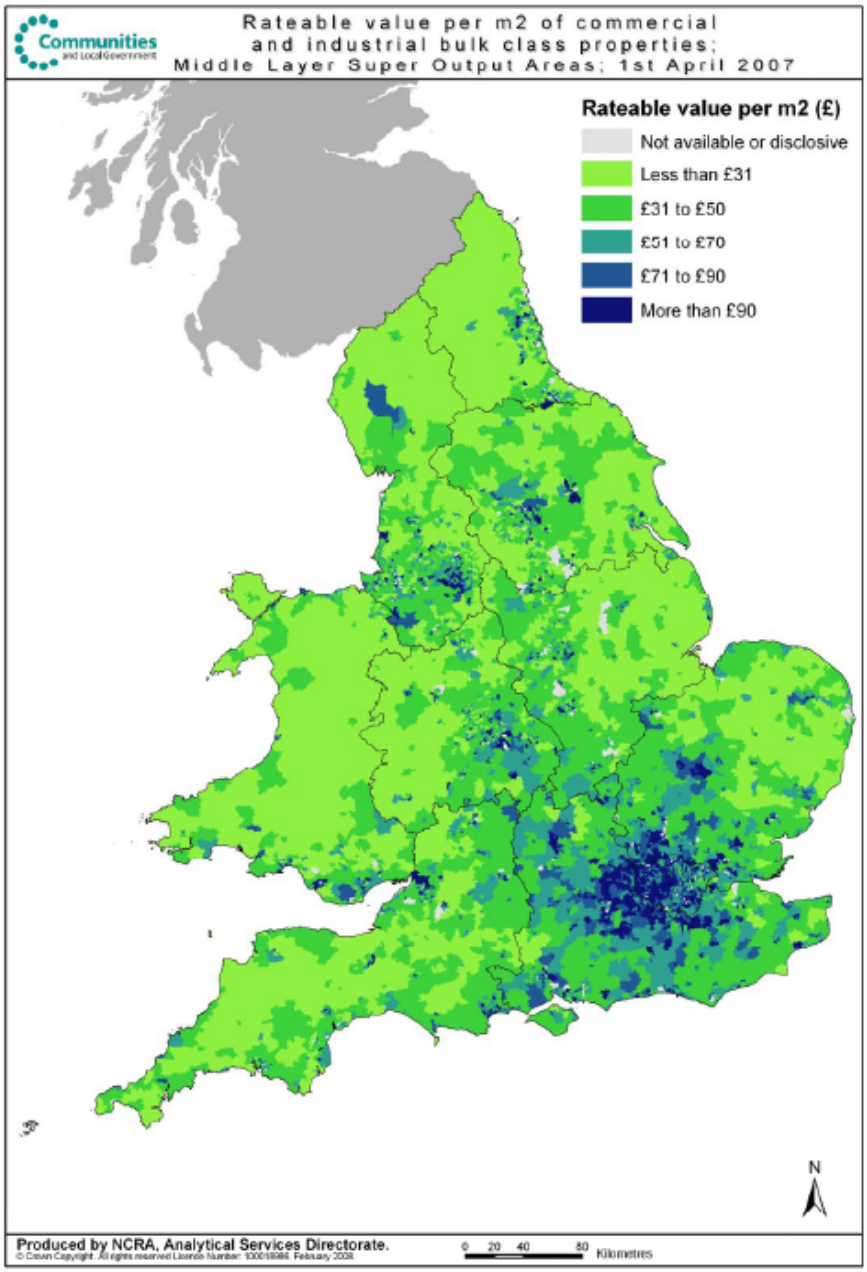
Notes: The figure plots 2001 population of UK cities (urban areas) against their rank in the urban hierarchy. The fact that the second tier of cities appear to be too small can be seen from observing that they lie below the zipf line (which roughly summarises the relationship between the size and rank of cities that holds across many different countries). In contrast, note that medium-sized cities sit roughly on the zipf line. Data is from http://www.citypopulation.de/UK.html.

The second piece of evidence discussed in Overman and Rice (2008) relates to the fact that UK service industries generally benefit much more than manufacturing from being located in larger urbanised environments. It is interesting to note that this is also true for higher tech manufacturing activities. If the Welsh economy moves towards these higher tech and service activities (as suggested in WAG, 2005) this implies an increasing role for larger cities where firms can benefit from these agglomeration economies. If these agglomeration economies strengthen further, this will reinforce this tendency. Again, the evidence is far from conclusive, but does point to reasons to expect an increasing role for the larger cities within the Welsh economy.

The final piece of evidence considered by Overman and Rice (2008) concerns differences in land prices. These prices indicate the amount that firms and workers are willing to pay to produce and work in different places. As figure 3 indicates for commercial land, these prices show an incredible amount of variation across space. This is true across the UK, but also *within* Wales where the price

of land in cities along the south coast is clearly higher than elsewhere. We would reach a similar conclusion if we considered residential land, although the picture is complicated by both the role of natural amenities and peoples' commuting patterns. In short, market signals *within* Wales, clearly identify that some areas have stronger potential for market led growth.

Figure 3: The UK has very marked spatial variations in land prices



Notes: Source CLG/ONS Statistical Release (February 2008): Floorspace and rateable value of commercial and industrial properties - 1 April 2007, England and Wales. A number of factors determine rateable value, but one can reasonably expect spatial variations in rateable value to be quite highly correlated with spatial variations in land values.

To summarise, on the basis of the limited evidence available, it would appear that (i) international comparison suggests the largest city in Wales might be too small (although this is less clear in a

UK context; and less clear if the definition is changed to be that of functional economic regions); (ii) due to the changing structure of the economy, the appropriate size of the larger cities in Wales is probably growing and is likely to continue to grow; (iii) market price signals indicate that of all available locations in Wales, certain cities are the ones that are preferred by both households and firms.

Overman and Rice (2008) argue that regional strategies based around resurgent cities may offer the best hope of delivering on regional growth objectives. On the basis of the discussion presented here similar arguments could be made for Wales, although the preliminary evidence is certainly less clear cut than it is for some of the English regions.

As discussed in Overman and Rice (2008), the benefits of this strategy will be unevenly distributed across *both* people and places. These arguments clearly extend to the Welsh context and mean that one needs to be careful about making judgements about development outcomes on the basis of information about places alone. To take just one example, Blackaby and Drinkwater (2005) note that "the increase in skills base of the Cardiff population has been partly achieved by the migration of the youngest and most economically productive members of the population from other areas of Wales". A policy based around, for example, the three southern coast cities would most likely reinforce this. Imagine, now, a policy which focused on spreading growth through out places in Wales. The question then becomes (i) whether these jobs for the young could realistically be created elsewhere in Wales; (ii) if not, whether the lost opportunities to the young are a price worth paying in terms of better outcomes for those that don't move (or commute) from their current residence to take advantage of opportunities elsewhere. As discussed in Overman and Rice (2008) much more evidence is needed to understand and quantify these effects.

References

Blackaby, D and S. Drinkwater (2005) *A Cuckoo in the Nest.* Institute of Welsh Affairs.

Overman and Rice (2008) "*Resurgent Cities and Regional Economic Performance*" SERC policy paper no 1.

WAG (2005*) Wales: A vibrant economy*. Welsh Assembly Government.

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