**Local Long-Run Growth Evolutions Across Britain: Some Exploratory Empirics**

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**Abstract**

Local Enterprise Partnerships (LEPs) have now been adopted in England as part of the UK Government’s new localism agenda. There is keen interest in understanding how they may be able to make an effective contribution to the narrowing of spatial disparities and, in line with current government thinking, help to spatially rebalance the English economy. If the LEPs are to develop and deliver effective policies it is important to know more about the factors that affect local growth rates. This article seeks to advance this agenda. It uses the shift share technique to assess the contribution of industry-mix relative to local-growth components in explaining variations in growth across LEP areas.

**Key Words**

Local economic growth policy Economic structure Local competiveness

Urbanisation

**1. Introduction**

Local Enterprise Partnerships (LEPs) have now been adopted as the basis for local economic policy in England as part of the UK Government’s new localism agenda (BIS, 2010). There is keen interest in understanding how they may be able to make an effective contribution to the narrowing of spatial disparities and, in line with current government aspirations help to spatially rebalance the English economy (See Gardiner et al (2013)). However, the dynamics of long-run local growth and their causes remain poorly understood, and many local growth models are untouched by empirical investigation. Yet if the LEPs are to develop and deliver effective policies then it is important to know more about the factors that determine local economic growth. This article begins by examining the economic performance of LEPs, together with the sub-areas of Scotland and Wales**[[1]](#footnote-1)**, over the last thirty years to provide something of a long-run perspective. The article uses the shift-share technique to identify the contribution of local economic structure and local competitiveness factors to these local differential growth paths. Recent theoretical literature has repeatedly highlighted the importance of industrial structure and agglomeration economies as determinants of local growth, so this paper seeks to examine their relative significance to the growth trajectories of the UK’s LEPs.

**2. Long-run evolutions in output, employment and productivity growth across LEPs and areas of Scotland and Wales**

There has been considerable variation in the pattern of local growth across local areas in Great Britain since 1981, whether one considers output, employment, or labour productivity. Figure 1 presents this variation by ranking LEP area productivity annual growth rates over 1981-2011, and showing how these are broken down into their output and employment constituents. Whilst some LEPs recorded output (GVA) growth rates of around 3% in others it was below 1%. These differences have meant that a LEP like Northampton expanded its real GVA by over 150% over the entire period.**[[2]](#footnote-2)** By way of contrast the slowest-growing local economy in terms of output was the Liverpool LEP which expanded by a mere 28% when the annual growth rate is compounded. These are significant differences. The physical distance between two areas is only two hundred miles but in economic terms they are poles apart. The best performing areas have enjoyed an annual increase in their employment of around 1-1.5% per annum. The weakest areas have hardly grown at all, and in Liverpool the employment base actually declined.

**Figure 1 Average compound growth rates (1981-2012)**



The combination of output and employment provides a measure of labour productivity. London has been the fastest-growing area on this metric with growth of around 2.25% pa, while at the other end of the spectrum regions such as Mid-Wales and Cumbria have grown by only 0.75%pa. Given the importance of productivity in determining long-run differences in GDP per capita (OECD, 2009) these are important performance gaps that need further exploration and explanation.

Figure 2 shows the variation in the growth of output across the local areas of Great Britain over the thirty years examined. In general, the fastest growth of output has been in the South of England although there are also some English LEP areas bordering with Wales that have done well and the effect of North Sea oil on Aberdeen is particularly noticeable.

**Figure 2: Overall Output Growth across Great Britain 1981-2011**

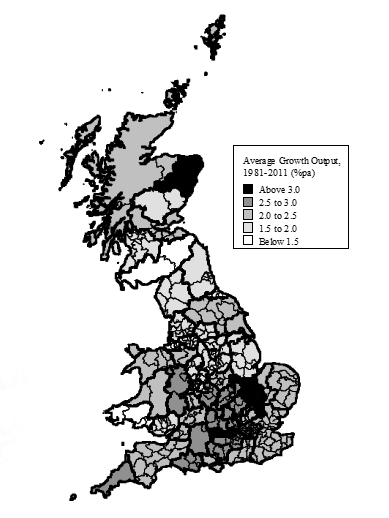
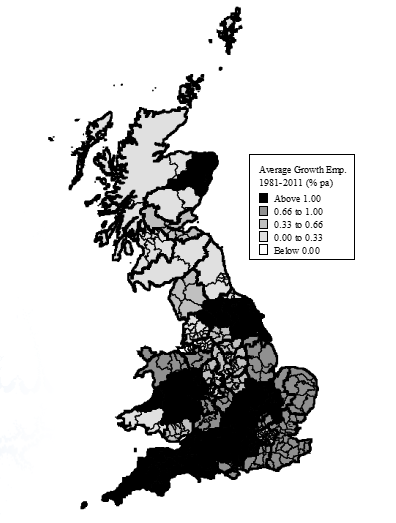
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Figure 3 shows the spatial growth of employment over the period. The pattern is somewhat different to that of output. Although there has been relatively strong employment growth in the South of England including the area around Bristol, there has also been rapid growth in the East, parts of Yorkshire and Wales.

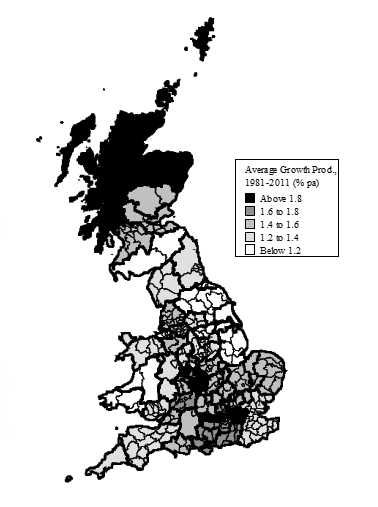
**Figure 3: Employment growth in Great Britain over the period 1981-2011**

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The ability of areas to grow is the result of their relative competiveness in producing goods and services (Kitson, et al, 2004). The growth of their productivity is of central importance (OECD, 2009). Figure 4 shows how the growth of productivity has varied over the period 1981-2010. The strong performance of LEPs in the South of England and parts of the English Midlands is evident.

As a first step we should ask whether local economies have changed and shifted their relative performance through time, or whether their rankings have been immutable. Focusing on productivity, it is striking how persistent productivity differences have been across the LEP areas over the period of analysis. Figure 5. shows that, with a few exceptions, there has been little change in the relative rankings of LEP areas over the thirty years examined, with a correlation coefficient of 0.75 between the 1981 and 2012 rankings. There is also a hint of divergence in

**Figure 4: LEP Average Productivity Growth Across Great Britain 1981-2011**



performance, as the regions at the top end of the scale mostly improved their position by the end of the period, while those at the bottom fell further behind.

There has been much interest in examining the relationship between the growth of output and productivity. Verdoorn’s law posits a positive relationship because of the belief that there are increasing returns. These can take a number of forms that include scale economies and possible effects on the absorption of technology (Scott, 1991). The Verdoorn relationship has been investigated using a variety of different approaches with a particular focus on models that regress productivity growth on output growth, and also employment growth on output growth, the argument for the latter approach being that it tends to avoid the problem of output being on both sides of the regression models (productivity being output per worker employed). Although not directly of the form examined in the main literature we regressed the growth of productivity across our local areas against the corresponding growth of output. Figure (6) shows the results. There is a statistically significant relationship with the coefficient on the output growth term being around 0.2 which is somewhat lower than the 0.5 found in much other estimation.

**Figure 5: Productivity levels in LEP areas in 2012 compared to 1981.**



Figure 7 examines how the local areas secured relative productivity growth, by examining whether this productivity was obtained at the expense of employment growth. It shows the growth of productivity in each LEP relative to the national average over the entire period and compares it with the respective relative growth in employment. Clearly, a few areas (e.g. Northamptonshire) have the virtuous position of combining above-average productivity growth while also managing a relatively strong employment performance (top-right quadrant). In stark contrast, Liverpool stands out as one of the LEPs that have relatively under-performed on both productivity and employment, placing it in the bottom left quadrant. In-between these two extremes, some areas like Greater Cambridgeshire and Peterborough (bottom-right quadrant) have experienced strong employment growth but have under-performed on productivity. Finally, some areas like the Black Country have displayed an above-average productivity performance, but have under-performed on employment growth (top left quadrant).

# Figure 6. Relationship between Productivity Growth and Output Growth across LEP areas. (Average Annual Growth Rates for 1981-2012).



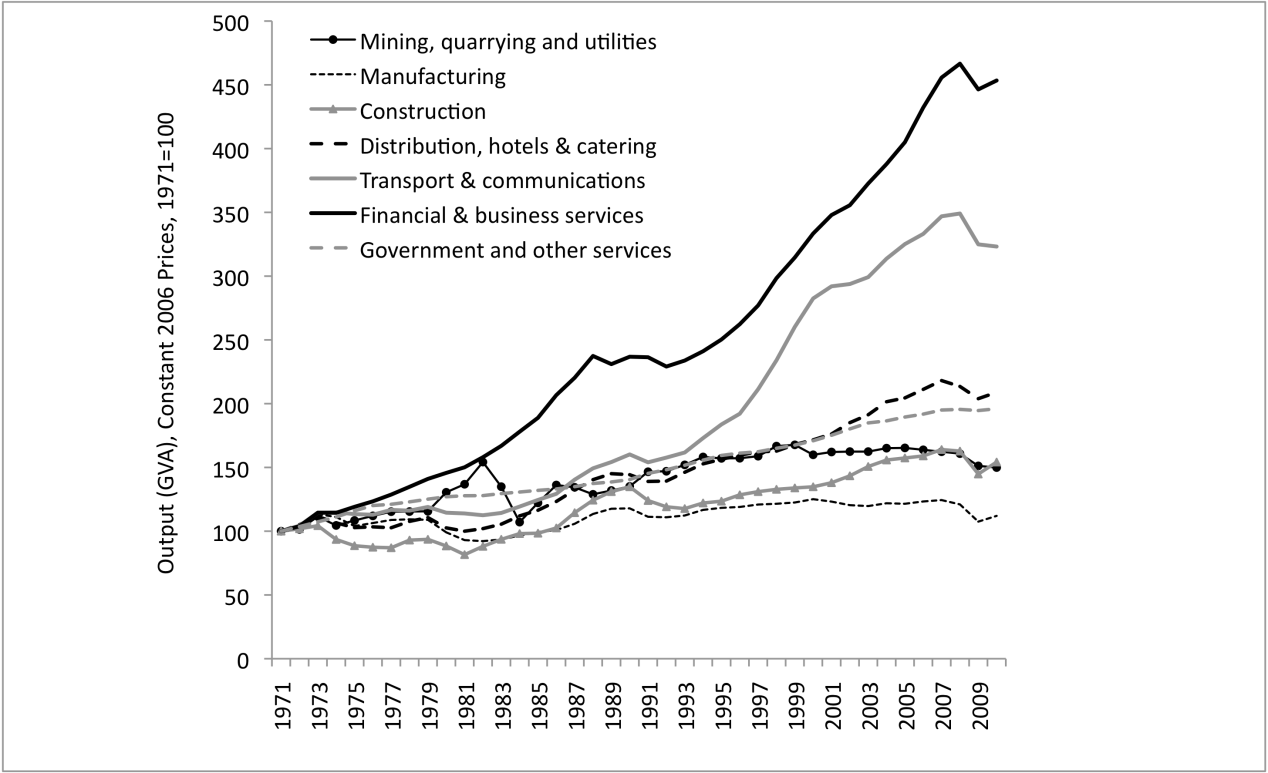
**Figure 7: Relative productivity and employment growth across the LEPs**



**3. The factors underpinning geographical variations in economic growth: the role of industrial structure.**

The evidence in the previous section identified significant differences across local areas in their rate of economic growth since 1981. In the modern world, local economic growth is of course strongly shaped by factors that are national or international in their origin and scale of impact. Such factors include the nation’s exchange rate, the growth of the world economy, industrial lifecycles and changes in technology. However, their impact is nonetheless mediated and conditioned by local economic structures and processes.

Figure 8 shows how growth has varied across economic sectors over the period 1971-2010. It is clear that manufacturing output has declined relative to the general growth of the UK economy. In fact, in 2009 the level of manufacturing output had only returned to where it was in 1973-three and a half decades before. Deindustrialization has affected all local areas in the United Kingdom to some degree, although not to the same extent. In contrast, there has been very significant growth in the financial services sector such that real output in that sector is now some 350% above its 1971 base. Local economies with a strong presence in that sector have benefitted from this expansion, with the most notable example, of course, being London (Gardiner, et al, 2013; Martin, 2014).

**Figure 8: Sectorally Unbalanced Growth in the UK Economy, 1971-2010.**

The consequences of Britain’s’ relative decline in manufacturing have been felt the most intensively in country’s long-established industrial cities which led the Industrial revolution. Many of the first casualties were the ‘smoke-stack’ industries which produced large volumes of goods with small unit value added and which competed mainly on price. Over the past fifty years the UK has lost virtually all of these industries. To the extent that these activities were concentrated in specific places there have been very different spatial consequences. To put it simply, the more an area had a structure that was biased to these sectors the more it tended to suffer relative decline.

The contribution of industrial structure more generally to economic growth in local areas can be examined using a dynamic shift share decomposition procedure (Gardiner et al (2013). Box 1 outlines the basic procedure adopted.

**Box 1. A Dynamic Shift Share Procedure for Decomposing LEP Growth Evolutions**



The contribution of industrial structure more generally to economic growth in local areas can be examined using a dynamic shift share decomposition procedure (Gardiner et al (2013). Figures 9-11 show the results of applying this approach. The analysis has only been possible at a relatively low level of industrial disaggregation (23 sectors[[3]](#footnote-3)); in part due to the relatively small spatial scale of the LEPs. However, even allowing for this, it is clear that industrial structure effects, while significant in many local areas, are generally far outweighed in importance by locally-specific factors. Traditionally in shift-share analyses, such locally-specific ‘shift’ effects are attributed to ‘competitiveness’, that is to a range of local factors that tend to raise or lower the performance of particular sectors in a local area. Thus while the industrial structure effect captures the extent to which a locality has above average shares of nationally faster and slower growing sectors, the ‘competitiveness’ effect reflects the extent to which locally those same sectors are growing even faster (or more slowly) than their national counterparts.

**Figure 9: Contribution of industry mix and locally specific factors to long-run employment change 1981-2012**



**Figure 10: Contribution of industry mix and locally specific factors to long-run output change 1981-2012.**



**Figure 11: Contribution of industry mix and locally specific factors to long-run productivity change 1981-2012.**



To further examine the impact of industrial composition we calculated a Krugman Specialisation Index for selected LEP areas that have been the subject of particularly extensive change over the period.**[[4]](#footnote-4)**  Figure 12 presents the results for four such areas; two that had experienced the most significant growth (Greater Cambridge and Greater Peterborough and Oxfordshire) and two areas experiencing the most dramatic decline (the Black Country and Liverpool). It is clear that differences in industrial structure across these local areas have been steadily declining over time (i.e. their economic structure have become more similar). In fact this convergence is common across almost all LEPS. This reinforces the findings from the shift-share analysis: in general specific local *‘*competitiveness’factors appear to be the major influence behind the longer–run dynamics of local growth.

**Figure 12: The Convergence of Local Economic Structures: Krugman’s Specialisation Index, Selected LEPs, 1981-2012.**



**4. Possible determinants of the local ‘competitiveness’ component**

The evidence presented in the previous section indicates that in most local areas factors other than industrial mix appear to account for the major part of differences in economic growth, and the importance of industrial structure seems to be declining. The local shift or competitiveness component has been responsible for an increasing share of growth and our analysis now turns to the factors that underpin its movement. As argued above, it reflects the extent to which industries in an area grow faster or slower than their national counterpart. Hence it is capturing a local ‘competitiveness’ effect and may thus reflect a number of locally-specific factors like the existence of positive (or negative) externalities of various kinds, including the skill level of a region’s workforce, local market size effects, knowledge spillovers, comparative advantages in access to capital and perhaps the effects of specific government policies (Moore, et al, 1986), as well as other functional and competitive differences between firms within the same industry sector.

The complexity of the local growth process suggests that a search for any one underlying unified theory with which to explain the determinants of the local growth component is unlikely to be successful. Moreover, the causal factors are likely to alter in relevance and intensity through time against a backdrop of the increasing pace of economic and technological change. However, a considerable body of research has been undertaken that provides some helpful pointers to its explanation. Thus, as a recent comprehensive study into the determinants of local growth undertaken by the OECD (2009) argued:

##### The conclusions from the very significant amount of research and econometric modelling undertaken by the OECD and other researchers is that regional economic development is the result of ‘the interplay between physical capital, human capital and the business environment’ and the ‘benefits of strong interaction between different types of regional assets’(page 46).

Our results align with similar results by Ogus and Skinner (2010) who, using standard shift-share analysis, found that for most of the UK regions differential output growth (relative to the national average) over the boom period 1995-2007 was mainly attributable not to industrial structure but to regional shift effects. This effect implies that firms in different areas differ in technology, management, market access, and labour productivity. In the remainder of this article we extend our analysis in two further directions to help to throw light on the factors that are contributing to variations in local growth. The first is to consider the role of agglomeration. The second is to assess the contribution of enterprise formation.

**The impact of agglomeration**

In recent years there has been an extensive body of research into the contribution that agglomeration economies make to local economic growth (see for example Fujita, Krugman and Venables, 1999); Fujita and Thisse, 2002; World Bank, 2009; Storper, 2013). The ability of companies to gain increasing returns in urban areas and thus falling average costs has been extensively discussed (see Gardiner, et al, 2011, for a discussion). The increasing returns are argued to reflect the benefits to firms from economies of scale (large markets) and economies of scope (specialisation) and the gains that arise from labour, knowledge spillovers and spillovers with specialist suppliers. NEG models build on the trade-offs between transport costs and the ability of companies to be able to realise the increasing returns associated with agglomeration. An extensive amount of research into the possible benefits of agglomeration and density in the United Kingdom has been undertaken by the Department for Transport (DfT, 2005). The research has sought to identify the productivity gain arising from the change in the level of agglomeration. This is based on the elasticity of productivity with respect to “effective density”. Calculating such elasticities can help to assess the impact of agglomeration enhancing transport investments. Rosenthal and Strange (2004) find that in the USA a doubling of urban size increases productivity by between 3 and 8 percent.

A recent review of studies on the benefits of agglomeration finds that ‘the doubling of job density in an area can result on improvements in productivity in the range of four to thirteen per cent, depending on the size, industry structure and economic make-up of the location studied (Department of Transport, Victoria, Australia (2012). However, perhaps the most comprehensive recent study has been undertaken by Melo, Graham and Noland (2008). This research undertook a quantitative review of the literature and identified some 729 elasticities from 34 different studies. They found that “country specific effects, the industrial coverage, the specification of agglomeration economies, and the presence of controls for both unobserved cross-country heterogeneity and differences in time variant labour quality can give rise to large differences in the results reported in the literature”(Abstract, page 1). More recently, Harris and Moffat (2012) examined total factor productivity growth in Local Economic Partnership regions in Britain over the period 1997-2008. They found that ‘the largest LEP areas in population terms with the highest levels of job density, greater reliance on manufacturing and skilled worker occupations, higher proportions of workers with NVQ4+ qualifications, and lower level of turnover of businesses, achieved the highest TFP growth. This strong performance is mostly the result of reallocations of output shares towards high productivity continuing plants and the opening of high productivity plants’.

In their seminal article on regional economic evolutions, Blanchard and Katz (1992) analysed differences in US state-level output and employment growth by deriving the cumulative annual change in the log of output (or employment) minus the cumulative annual change in the log of growth of output (employment). When this approach is applied to the English LEP areas and the counties of Wales and Scotland, there are substantial differences in the growth of GVA and employment between areas and we investigated the possible contribution of agglomeration by grouping our local areas according to an effective population density measure. There is an inevitably degree of arbitrariness in the approach but we derived six broad groups; namely London, Metropolitan, Urban, Semi-Urban, Rural and Very Rural. These were based on their population density indexed relative to Great Britain. Appendix 3 presents the allocation. We present the results for the growth of output (GVA) relative to that of the nation as a whole over the study period.

Figure (13) shows that the Metropolitan areas have seen relative decline in their employment, whilst the rural areas have experienced the opposite. London declined in the early part of the study period in line with the rest of the most urban areas but then experienced a turnaround. Figure (14) indicates that in general the Metropolitan areas have tended to suffer from having an adverse economic structure, unlike London which has benefitted from positive structural effects, particularly associated with financial services and banking. Figure (15) shows the contribution of the local growth component.

**Figure (13). The growth of output relative to the national average by LEPs grouped according to relative effective population density.**



**Figure (14.). The growth of output relative to the national average by LEP’s grouped according to relative effective population density; the contribution of industrial structure.**



**Figure (15). The growth of output relative to the national average by LEP’s grouped according to relative effective population density; the contribution of the local growth component.**



The most urban areas have had a negative growth component contribution throughout the period. London is again an exception having experienced a positive growth contribution in recent years. The negative growth component in the most urban areas throughout the period contrasts sharply with the experience of the more rural areas. These results suggest that for England’s large conurbations the pronounced urban to rural shift observed over the 1960s and 1970s (see Fothergill and Gudgin, 1982) has continued to the present time albeit with the exception of London. The strength of this relationship was such that at the regional level Fothergill and Gudgin were able to ‘predict’ the regional differential manufacturing employment shift over the period 1959-75 on the basis of a region’s relative degree of urbanization (Fothergill and Gudgin, 1982). Thus, the North West region in England declined particularly badly because it had two very large conurbations; Manchester and Merseyside. A relatively rural area like East Anglia with no large conurbation and relatively small and medium sized towns grew rapidly with a favourable local growth component.

The significant change since the time of the Fothergill and Gudgin research is the position of the London conurbation which, unlike the other large British agglomerations, has been able to ‘turn around’ its local growth performance. Gardiner et al (2013) provide an extensive discussion of this. For the other English conurbations whatever the positive contribution they may still receive from agglomeration economies such benefits have been more than offset by stronger negative factors. As Figure 16 shows most clearly London and the other English conurbations are dramatically different in this respect.

**Figure (16). The growth of output relative to the national average for London compared to the rest of the British conurbations; the contribution of the local growth component.**

From the mid 1970s onwards researchers have sought to understand what have been the economic factors underpinning the ‘urban-rural shift’. A number of theories have been investigated and all of them have tended to contribute something to an understanding of the factors involved. Fothergill and Gudgin found in their research that a significant factor that distinguished the relative pattern of employment change (as a proxy for economic growth) between urban and more rural areas was differences in the relative ability of companies in each area to expand and grow rather than significant differences in new firm formation, industrial movement, closure rates or in-situ shrinkage. In general, manufacturing in both urban and rural areas was experiencing relative decline in existing plants at something like the same rate reflecting the influence of increasing international competition and manufacturing companies seeking to replace capital for labour with a resulting increased the amount of floorspace per worker.

The implication of the Fothergill and Gudgin thesis was that the denser the settlement, i.e. the more urban, the more constrained the majority of its businesses where likely to be in terms of them being able to expand as they sought to introduce new investment. This was, in part, an inevitable feature of the physical development of cities, and in fact as early as the 1930s the Barlow Report (Barlow, 1940) highlighted that inner city manufacturing companies in London were beginning to move to locations in the London periphery as a result of this phenomenon. The arrival of the Town and Country Planning Act and the introduction of Green Belts simply meant that companies were displaced further in their search for space. In cities with less restriction on the expansion of the periphery the result was more expansion around the city edge.

Fothergill and Gudgin (1982) and others (Moore et al, 1982), pointed out that although the movement of companies, often as a result of regional and urban policy, had an influence on the urban rural shift it was by no means the dominant force at work. Other researchers have highlighted the contribution that firm size has made to differences in economic growth between areas. As the last century progressed the size of companies in British manufacturing expanded so that by 1980 a very large part of all industrial production was being produced in the larger companies. Many of these large companies were concentrated in the larger urban areas and there is evidence to suggest that areas with a few large firms have tended to be associated with relatively lower levels of new start-ups compared with other areas. Thus, when these large companies closed the areas in which they were located found it harder to create new activities to replace them. And, others pointed to the impact of big companies restructuring away from the urban areas and to locations and smaller plants in rural and often policy assisted locations as the rate of profitability in urban areas fell (Massey and Meegan, 1978, Tyler et al, 1988).

Other research has examined whether the urban rural shift could be explained by production cost differences as they affected the location of both manufacturing and the service based sector that was beginning to occupy more floor space in the larger cities. Perhaps one of the most extensive examples of this was the work of Tyler, Moore and Rhodes (1988). They discovered that unit input costs tended to be higher in the large conurbations relative to their surrounding hinterlands and thus for a wide range of manufacturing industries significant gains in profitability could be obtained by locating outside London and to a lesser extent outside the other main conurbations. Whilst some of the effect of relatively higher input costs were probably offset by higher levels of productivity as standard agglomeration theory might suggest, it seemed unlikely that they could be large enough to do this completely and thus certainly in the case of London higher costs could be a contributory factor in the loss of manufacturing and service activity to more rural areas in the South East in much of the post war period.

A further source of enquiry was that of Keeble and Tyler (1995) in their enterprising theory of the urban shift. They argued that more rural areas were able to attract a relatively high proportion of actual, or potential, entrepreneurs, largely because of their desirable residential environmental characteristics. These migrant entrepreneurs were considered to bring with them ‘urban-derived know how’ and expertise relevant to setting up new enterprises to serve growing markets. The companies in accessible rural areas were undertaking a relatively higher proportion of product innovation and targeting new and emerging markets relative to their more urban counterparts.

**The contribution of the components of enterprise creation**

Our results suggest that there have been significant differences across LEPs in terms of the dynamics of growth in both employment and output. We have also questioned the extent to which these differences can be explained by simple differences in industrial composition or the degree of agglomeration. Analysis needs to pay greater attention to local competitiveness effects and their relationships to firm-level processes. In order to further explore some of the possible causes discussed above, this final section focuses on firm-level change and establishment data. Ideally of course, we should explore these issues with data that span the entire period of analysis (1981-2012). However, such data at a LEP scale do not exist and we have therefore focused on the period of the recent recession. This is, of course, a highly turbulent period when we might expect to see firm level changes on a significant scale, although we should be cautious about generalizing from this period as firm dynamics in recession differ from those in periods of boom. Notwithstanding this caution, in order to understand more about the extent to which changes in firm behaviour have contributed to the spatial variations in the local growth component, we obtained establishment based data for the period 2007-2011 for all of the LEP areas[[5]](#footnote-5).

This data enabled a ‘components of change’ analysis to be undertaken across our LEPs. The data allowed us to consider the contribution of firm births, deaths and in and out firm migration to the stock of firms in each of our categories of LEP areas. We were also able to obtain employment data broken down according to these categories and examine the contribution that the in-situ expansion and contraction of firms made. It is to be remembered that it was spatial differences in the propensity of firms to expand their employment change that Fothergill and Gudgin (1982) found contributed to the urban rural shift in their study period.

Research undertaken by Mahoney (2013) drawing upon data from the Inter-Departmental Business Register, has assessed birth and deaths of enterprises**[[6]](#footnote-6)** in Local Enterprise Partnerships over the period 2004-2011. Its objective was also to understand more about the role of new firm formation and destruction on the ability of local areas to grow. The research found that

LEPs predominantly made up of local authorities which are classified as rural generally had lower death rates than LEPs with local authorities which were predominantly classified as urban. However, these LEPs containing predominantly rural local authorities also generally had lower enterprise birth rates than LEPs with local authorities mostly classified as urban’ (Mahoney, 2013, page).

Our analysis extended this study by estimating all the components of enterprise change at the local level. Table (1) presents the results.

**Table 1 LEP firms 2007-2011 by urban and rural categories as % of firm stock at beginning of 2007 (%)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Deaths** | **Births** | **Outward migration** | **Inward migration** | **Net migration** | **Stock end of 2011** |
| London | 40.7 | 39.4 | 4.9 | 3.2 | -1.9 | 97.0 |
| Metropolitan.(Ex London) | 36.4 | 34.1 | 3.9 | 3.8 | -0.1 | 97.6 |
| Urban | 35.2 | 33.1 | 4.2 | 4.7 | 0.5 | 98.4 |
| Semi-Urban | 33.7 | 31.5 | 3.1 | 3.5 | 0.4 | 98.2 |
| Rural | 32.5 | 31.2 | 3.8 | 4.4 | 0.6 | 99.0 |
| Very rural | 29.2 | 28.4 | 2.3 | 3.0 | 0.6 | 99.8 |
| England | 35.8 | 33.9 | 0.2 | 0.2 | 0.0 | 98.1 |

Source: Trends Business Research

The data is only for a short period and one that has been characterized by a very significant recession. In general, the stock of firms in England was around 2 percent lower by the end of the study period. Although urban areas tended to create more firms over the period relative to rural areas they also experienced greater firm destruction. London has the highest death rate but also a high birth rate. These findings are in line with those of the Mahoney (2013). The net migration of firms was not a major source of difference over the period although there were some interesting differences in the flow of in and out movement across the areas.

Table 2 extends the analysis to employment and thus allows the in-situ expansion and contraction of firms to be considered. The overall net change in the stock of employment over the period for the United Kingdom as a whole was 7 percent but again, in line with the analysis presented earlier in this article, there was a clear urban to rural difference with the dense urban areas experiencing the greatest proportionate job loss with this appearing mainly to be due to the impact on greater loss of employment through firm closure in the deeply urban areas compared to the very rural. The Fothergill and Gudgin (1982) finding for period 1959-1973 that the contribution of firm closure was much the same across the urban to rural continuum no longer appears to be the case. In the past few years at least, London has tended, on balance, to lose employment through net migration and this is in contrast to the other conurbations which are broadly neutral in this respect. The other conurbations have tended to suffer greater employment loss through net change in existing firms compared to rural areas. Clearly, more research is needed to into these different patterns of firm behaviour.

**Table 2. LEP associated employment 2007-2011 by urban and rural categories as % of employment stock at beginning of 2007 (%)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Deaths** | **Births** | **Outward migration** | **Inward migration** | **Net migration** | **Net employment change in existing firm** | **Stock end 2011** |
| London | 20.5 | 14.9 | 5.8 | 3.8 | -2.0 | -0.8 | 91.7 |
| Metropolitan.)ex London) | 20.2 | 14.3 | 4.3 | 4.8 | 0.5 | -2.1 | 92.5 |
| Urban | 19.8 | 14.2 | 4.6 | 5.2 | 0.6 | -1.5 | 93.5 |
| Semi-Urban. | 18.8 | 13.8 | 3.8 | 3.7 | -0.1 | -1.8 | 93.1 |
| Rural | 18.5 | 14.2 | 4.6 | 3.5 | -1.1 | -1.6 | 93.0 |
| Very rural | 17.4 | 14.4 | 2.7 | 3.1 | 0.4 | -1.2 | 96.1 |
| England | 19.7 | 14.3 | 0.2 | 0.2 | 0.0 | -1.7 | 93.0 |

Source: Trends Business Research

**5. Conclusions**

There have been substantial differences across local areas in their ability to grow over the last thirty years but our understanding of the factors responsible remains limited. The new localism agenda (BIS, 2010) and the roll-out of Local Enterprise Partnerships across England have reinforced the need for more research in this important area. The research presented in this article has investigated the contribution that spatial differences in economic structure has made to the differences in growth observed. It is clear that the contribution of economic structure has tended to decline over time and more of the relative difference in growth between areas is to be found in the local ‘competitiveness’ component. There are individual exceptions but this appears to be a fairly robust finding and thus presents the obvious question as to what factors are accounting for the differences in this local growth component between areas.

As this article observes there has been an extensive body of research undertaken over the last thirty years that has addressed this question. It appears that the ‘urban rural shift’, so extensively investigated by Fothergill and Gudgin in their research into unequal growth (Fothergill and Gudgin, 1982) has continued largely to the present day. The large English conurbations have continued to experience an adverse local growth contribution relative to the less urban and more rural areas in England. The big exception, and a complete reversal of the position in the 1980s, is the London conurbation.

The evidence presented in this article points firmly to London experiencing a dramatic improvement in its local growth component in the 1990s, a phenomenon that we have discussed extensively elsewhere (Gardiner et al, 2013; Martin, 2014). Moreover, London’s relative success compared to the other major conurbations in England is reinforced by a very favourable industrial structure.

The causes of the continued relative economic decline in the local growth component in the traditional English conurbations are clearly complex in nature. Moreover, as the experience of London shows, it is possible for positive change to occur, sometimes quite rapidly. The relatively poor performance of the large urban areas in their local growth component tends to suggest what whatever the positive contribution to their growth made by agglomeration economies there are other factors that are still constraining their growth compared to more accessible rural areas across England. History matters and their problems must partly reflect the difficulties they have been facing adjusting their resource base from its predominantly industrial past. London has been able to adjust relatively more quickly in this respect aided by the growth of its financial and business services sector, and by a host of other advantages the city enjoys compared to other parts of Britain (including easier access to finance, a much higher per capita expenditure on infrastructure, a higher degree of political influence on and support from central Government, to name but some).

What is clear from the research presented in this short article is that the challenge to bring about local economic growth varies considerably across the LEPS of England and this should be reflected in how HM Government allocates whatever resources it makes available. The position of the English large conurbations other than London is a particular source of concern. The priority for policy development is to move away from the temptation to rely on simple recipes such as industrial mix or agglomeration and city size, and to better understand the causes of local competitiveness effects with the goal of introducing measures that stimulate and raise these effects, particularly in large urban areas outside of London.

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**Annex A: Area Descriptions**

The construction of the LEP areas from LAD level is mostly a well-known aggregation[[7]](#footnote-7), and is not covered here. Suffice to say that the 39 LEPs have been ordered alphabetically in our analysis.

|  |
| --- |
| 01 - Black Country |
| 02 - Buckinghamshire Thames Valley |
| 03 - Cheshire and Warrington |
| 04 - Coast to Capital |
| 05 - Cornwall and Isles of Scilly |
| 06 - Coventry and Warwickshire |
| 07 – Cumbria |
| 08 - Derby, Derbyshire, Nottingham and Nottinghamshire |
| 09 – Dorset |
| 10 - Enterprise M3 |
| 11 – Gloucestershire |
| 12 - Greater Birmingham and Solihull |
| 13 - Greater Cambridge and Greater Peterborough |
| 14 - Greater Manchester |
| 15 - Heart of the South West |
| 16 – Hertfordshire |
| 17 – Humber |
| 18 – Lancashire |
| 19 - Leeds City Region |
| 20 - Leicester and Leicestershire |
| 21 – Lincolnshire |
| 22 - Liverpool City Region |
| 23 – London |
| 24 - New Anglia |
| 25 - North Eastern |
| 26 – Northamptonshire |
| 27 – Oxfordshire |
| 28 - Sheffield City Region |
| 29 – Solent |
| 30 - South East |
| 31 - South East Midlands |
| 32 - Stoke-on-Trent and Staffordshire |
| 33 - Swindon and Wiltshire |
| 34 - Tees Valley |
| 35 - Thames Valley Berkshire |
| 36 - The Marches |
| 37 - West of England |
| 38 – Worcestershire |
| 39 - York and North Yorkshire |

In addition it was decided to extend the analysis to Scotland and Wales, as they are interesting (and connected) areas to include as part of Great Britain and also increase the size of sample to be analysed. To this end, we used analysis undertaken for the UK Commission for Employment and Skills (Working Futures) in 2010-11, when a sub-regional analysis was undertaken, which also used LEPs as the English spatial disaggregation. For Scotland and Wales the following disaggregation was used (based on LAD aggregations):

|  |  |
| --- | --- |
| *Wales* | |
| North | Anglesey, Conwy, Denbighshire, Flintshire, Gwynedd, Wrexham |
| Mid | Ceredigion, Powys |
| South West | Carmarthenshire, Neath Port Talbot, Pembrokeshire, Swansea |
| South East | Bridgend, Blaenau Gwent, Caerphilly, Cardiff, Merthyr Tydfil, Monmouthshire, Newport, Rhondda Cynon Taff, Torfaen, Vale of Glamorgan |
| *Scotland* | |
| Aberdeen City and Shire | Aberdeen City, Aberdeenshire |
| East of Scotland | City Of Edinburgh, Clackmannanshire, East Lothian, Falkirk, Fife, Midlothian, Stirling, West Lothian |
| Highlands and Islands Enterprise | Argyll And Bute, Highland, Moray, Na H-Eileanan An Iar, Orkney Islands, Shetland Islands |
| South of Scotland | Dumfries And Galloway, Scottish Borders |
| Tayside | Angus, Dundee City, Perth And Kinross |
| West of Scotland | East Ayrshire, East Dunbartonshire, East Renfrewshire, Glasgow City, Inverclyde, North Ayrshire, North Lanarkshire, Renfrewshire, South Ayrshire, South Lanarkshire, West Dunbartonshire |

Thus, ten more areas were added to the analysis.

|  |
| --- |
| 40 - North Wales |
| 41 - Mid Wales |
| 42 - South West Wales |
| 43 - South East Wales |
| 44 - Aberdeen City and Shire |
| 45 - East of Scotland |
| 46 - Highlands and Islands Enterprise |
| 47 - South of Scotland |
| 48 – Tayside |
| 49 - West of Scotland |

**Annex B: Industrial Sectors**

The employment data used in the analysis for this paper come from the UK Office of National Statistics and are constructed from LAD level. The real GVA data are obtained by applying region and sector-specific productivity to the employment data, i.e. any given sector in any given LAD in the same region is assumed to have the same productivity developments. Data for 23 industries were used, based on the 2-digit industrial level, aggregated in certain cases as shown in the Table below.

|  |  |
| --- | --- |
| **Industry Name** | **2-Digit Industry Codes (SIC 2003)** |
| Agriculture etc | 01, 02, 05 |
| Food, drink & tobacco | 15, 16 |
| Textiles, clothing & leather | 17, 18, 19 |
| Wood & paper | 20, 21 |
| Printing & publishing | 22 |
| Fuels and Chemicals, Rubber & plastic products | 23, 24, 25 |
| Mining & Quarrying, Non-metal & mineral products | 10, 11, 12, 13, 14, 26 |
| Basic metals & metal products | 27 |
| Mechanical engineering | 28, 29 |
| Electron., elec., inst. Engineering | 30, 31, 32, 33 |
| Transport equipment | 34, 35 |
| Other manufacturing | 36, 37 |
| Electricity, gas & water | 40, 41 |
| Construction | 45 |
| Distribution | 50, 51 |
| Retailing | 52 |
| Hotels & catering | 53 |
| Transport & communications | 60, 61, 62, 63, 64 |
| Banking & finance, Insurance | 65, 66 |
| Other business services | 67, 68, 70, 71, 72, 73, 74 |
| Public admin. & defense | 75 |
| Education & health | 80, 85 |
| Other services | 90, 91, 92, 93, 95, 96, 97, 99 |

**Annex C. Relative Population Density**

|  | **RPOP** | **Urban Rural** |
| --- | --- | --- |
|  | **Relative Population Density (1981, GB=1)** |  |
| Highlands and Islands Enterprise | 0.05 | Very Rural |
| South of Scotland | 0.10 | Very Rural |
| North Wales | 0.26 | Very Rural |
| Mid Wales | 0.27 | Very Rural |
| Aberdeen City and Shire | 0.28 | Very Rural |
| Tayside | 0.29 | Very Rural |
| Cumbria | 0.30 | Very Rural |
| York and North Yorkshire | 0.40 | Very Rural |
| The Marches | 0.44 | Very Rural |
| Cornwall and Isles of Scilly | 0.52 | Very Rural |
| Lincolnshire | 0.52 | Very Rural |
| New Anglia | 0.63 | Rural |
| Greater Cambridge and Greater Peterborough | 0.65 | Rural |
| Swindon and Wiltshire | 0.69 | Rural |
| Gloucestershire | 0.85 | Rural |
| Oxfordshire | 0.94 | Rural |
| Dorset | 1.01 | Rural |
| Northamptonshire | 1.02 | Semi-Urban |
| South West Wales | 1.06 | Semi-Urban |
| North Eastern | 1.14 | Semi-Urban |
| Heart of the South West | 1.15 | Semi-Urban |
| South East Midlands | 1.18 | Semi-Urban |
| Lancashire | 1.19 | Semi-Urban |
| Worcestershire | 1.25 | Semi-Urban |
| Humber | 1.25 | Semi-Urban |
| Buckinghamshire Thames Valley | 1.28 | Semi-Urban |
| South East Wales | 1.36 | Semi-Urban |
| East of Scotland | 1.47 | Semi-Urban |
| Cheshire and Warrington | 1.61 | Urban |
| South East | 1.61 | Urban |
| West of Scotland | 1.67 | Urban |
| Enterprise M3 | 1.68 | Urban |
| Stoke-on-Trent and Staffordshire | 1.70 | Urban |
| Coventry and Warwickshire | 1.74 | Urban |
| Solent | 1.78 | Urban |
| Derby, Derbyshire, Nottingham and Nottinghamshire | 1.81 | Urban |
| Thames Valley Berkshire | 2.51 | Urban |
| Coast to Capital | 2.63 | Urban |
| West of England | 2.78 | Urban |
| Sheffield City Region | 2.84 | Metropolitan |
| Greater Manchester | 3.08 | Metropolitan |
| Leeds City Region | 3.10 | Metropolitan |
| Tees Valley | 3.73 | Metropolitan |
| Hertfordshire | 3.86 | Metropolitan |
| Greater Birmingham and Solihull | 4.69 | Metropolitan |
| Leicester and Leicestershire | 5.69 | Metropolitan |
| Liverpool City Region | 8.24 | Metropolitan. |
| Black Country | 14.44 | Metropolitan |
| London | 19.37 | London |

1. A full description of the spatial areas used for the analysis is provided in the annex. [↑](#footnote-ref-1)
2. Data supplied by Cambridge Econometrics. [↑](#footnote-ref-2)
3. See annex for sector definitions. [↑](#footnote-ref-3)
4. The Krugman Specialisation Index (KSI), compare a city’s composite structure against an average (typically for the country). The KSI is expressed as follows: Where, as before, is the share of employment in sector i in city j and is the average share across all cities not including the city itself (j) (ie the city for which the KSI is calculated). The KSI is also closely related to the Relative Diversity Index (RDI) which is its inverse. The KSI can take values between 2 and 0. A Value of 0 implies that the economic structure is similar to the reference structure (e.g. the country average), while a higher value means increased specialisation or deviation away from this norm. [↑](#footnote-ref-4)
5. Establishment data for by Sector for Local Authority Areas in Selected Case Study Regions. The analysis presented in this article uses time series data held by Trends Business Research (TBR, Newcastle). The TBR data base is derived from Dunn and Bradstreet (D&B) files. A key aspect of the TBR data set is that it can be used to identify the relationships at detailed cohort and sectoral level between actual firm change and change in employment levels. This ‘components of change’ analysis measures exactly the attributes which this study seeks to address at the local level (based upon 6 digit post codes), and allows the study of three key dimensions of firm dynamics: continuing firms, firm births, and firm deaths. [↑](#footnote-ref-5)
6. An enterprise has been defined for statistical purposes as ‘the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. [↑](#footnote-ref-6)
7. See <https://www.gov.uk/government/policies/supporting-economic-growth-through-local-enterprise-partnerships-and-enterprise-zones/supporting-pages/local-enterprise-partnerships> for more information. [↑](#footnote-ref-7)