

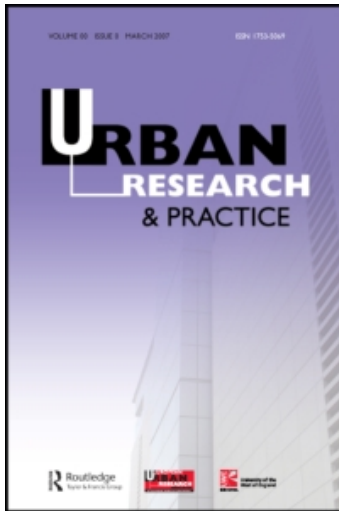
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Resurgent European cities?

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European governments are tending to perceive cities as sites of renewed economic dynamism and physical renaissance, and as places that can help to resolve social and environmental challenges. The paper presents three propositions for why the fortunes of cities in advanced economies may have improved. It then offers evidence from across Western Europe to assess whether they have done so, both in comparison with their past trajectories and in relation to smaller urban and rural areas. One finding is that cities in aggregate have experienced continued prosperity rather than decline and revival or accelerated growth. Another is that their overall position relative to smaller settlements does not seem to have changed greatly. Looking in more detail, however, there is more evidence of resurgence, as well as the opposite. National variations seem important and cities in Finland, Sweden, Ireland, Britain and Spain show signs of substantial economic improvement over the last decade. In contrast, cities in Germany have experienced a marked slowdown, albeit from a position of comparative prosperity at the outset.

Keywords: resurgent cities; Europe; economic trajectories; agglomeration; knowledge-intensive growth

Introduction

The long-established tendency to perceive large old cities as being dominated by economic problems, social distress and physical decay is diminishing. Instead, governments and international organisations are inclined to view them as sites of renewed economic dynamism and physical renaissance, and as places that can help to resolve many social and environmental challenges (OECD 2006, United Nations 2007, Cochrane 2007). In particular, there is a growing belief that cities are drivers of innovation, creativity and productivity growth in advanced service-oriented economies (European Commission 2006, 2007, HM Treasury 2006). Cities are also thought to contain the cultural vitality, social infrastructure, consumer amenities and career choices to help regions and nations attract the skills and talent required to generate and exploit knowledge and thereby build dynamic competitive advantage (HM Treasury 2006, OECD 2006).

This shift in perspective on the part of governments from an essentially pessimistic view of cities to a positive position has been widely welcomed by commentators (van den Berg *et al.* 2004, Buck *et al.* 2005, Parkinson *et al.* 2006). However, there has been limited discussion of the nature of urban 'resurgence' and even less analysis of the empirical evidence, especially in Europe (Cheshire 2006). There have been several useful comparative assessments of conditions in selected European cities (e.g. Parkinson *et al.* 2004, BAK Basel Economics 2005, European Commission 2007) and some work on the demographic trajectories of cities (Turok and Mykhnenko 2007), but very little on the dynamics of urban economic

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change. What does the revitalisation of cities amount to, and what are the putative sources of revival? Does it involve shifts in the movement of people and households; or in business investment, jobs and incomes? Could the claims about recent progress be a misreading of short-run cyclical improvements rather than a durable secular trend? Do the arguments apply equally to all countries and all cities within them – large and small, capital and provincial? Put simply, what does ‘resurgence’ mean, and to what and whom does the term apply?

The purpose of this paper is to offer a preliminary assessment of these questions by presenting evidence from across Western Europe to assess whether the fortunes of cities in advanced economies have improved, both compared to their past trajectories and relative to smaller urban and rural areas. We put forward three different propositions for resurgent cities and provide evidence dating back over 25 years to analyse how urban fortunes have changed, based on a range of key economic indicators of extensive and intensive growth, including output, employment and average incomes.

The next section elaborates the arguments for resurgent cities. Section 2 discusses methodological and measurement issues. The third and fourth sections present the findings for European cities as a whole in absolute and relative terms. Section 5 considers national differences between city trajectories. The sixth section examines the position of individual cities more closely, and the conclusion draws the evidence together and considers the implications.

1. The arguments for resurgent cities

Cities represent major geographical concentrations of economic activity and population. They offer various advantages to businesses and households that have arguably become more important in contemporary circumstances of global economic integration and accelerating technological change. These advantages can be encapsulated in three propositions for why city economies may be performing more strongly now than 10 or 20 years ago.

First, cities offer a range of general agglomeration advantages to firms, including access to a deep labour pool, superior connectivity and a diverse choice of property and suppliers. In a more volatile and fast-changing economy there is a premium on flexibility and adaptability to shifts in markets and technologies, especially as companies tend to be leaner, more focused on core competences and reliant on buying in goods and services rather than in-house production (Buck *et al.* 2005, Scott 2006). Agglomerations enable firms to ‘mix and match’ their various inputs, access scarce resources and alter their workforce more easily in response to changing business needs (Duranton and Puga 2004, Turok 2004, Rice *et al.* 2006). These opportunities and interactions lower costs, facilitate reorganisation and growth, and improve overall economic resilience. Staff recruitment and replacement are especially important in high turnover and fast-changing activities. Cities also provide a better choice of shared services and infrastructure, such as common professional services, international air routes and electronic networks.

The second advantage of concentration stems from superior flows of ideas and information, resulting in more innovation. Agglomeration is significant for knowledge-intensive functions and technologically advanced activities that enable high-cost economies to differentiate themselves from lower-cost competitors by continuing to create more valuable products, processes and services. Proximity is important for creativity and innovation by facilitating communication and sharing of complex ideas between firms, centres of research and related organisations (Cooke and Morgan 1998, Porter 2000, Storper and Manville 2006, Scott 2006). It enables people and firms to compare, compete and collaborate, creating a self-reinforcing dynamic that spurs creativity, attracts mobile capital and talent,

and generates growth from within. Brainstorming, mutual learning and exchanging tacit knowledge are more effective face-to-face than remotely through electronic communication. Close contact enables formal and informal networks of technical and scientific staff to emerge, which promotes all sorts of collaborative projects.

Localised ‘innovation systems’, ‘interfirm networks’ or ‘industrial clusters’ also enable specialised suppliers, venture capital providers and skill-sets to develop, which assist knowledge exchange, technical progress and the commercialisation of basic research. These systems are important in permitting third parties within cities to capture some of the ‘knowledge spillovers’ or externalities that emerge in unpredictable and unorganised ways from disparate local firms and organisations engaged in generating original information, ideas and expertise.

Third, cities also offer unique benefits to consumers, with spinoffs for growth through business and domestic tourism and talent attraction (Florida 2004, Rosenthal and Strange 2004, Glaeser and Gottlieb 2006, Turok 2007). Some facilities are available in large cities only because they aren’t viable elsewhere, such as major entertainment venues, convention centres, museums, opera, art galleries or specialised centres of education and health. Rising overheads and exceptional costs of providing and upgrading these facilities in line with changes in fashion and technology may bring about increasing concentration in the biggest centres. Cities also offer greater choice of shopping, restaurants, hotels, sporting amenities, social infrastructure and careers to attract people to visit, study, live and work.

Demographic changes such as smaller households, dual-earner households, busier lifestyles, increasing mobility and expansion of demand for higher education may also favour cities (Costa and Kahn 2000, European Commission 2007). The relatively dense districts at the core of large cities enable more efficient and intense social interaction and better access to services and amenities than in smaller settlements, reinforced by an attractive public realm. Outward commuting by people willing to pay a premium to live in central cities but working in surrounding areas indicates the consumption benefits gained. The growth of the ‘consumer city’ also coincides with the expansion of powerful multinationals in retailing, entertainment and hospitality that reap large internal-scale economies and tend to displace smaller, independent enterprises from city centres.

It is possible that these processes may coincide in the same cities and reinforce each other to generate stronger ‘pulling power’ and faster growth all round. Alternatively, they may vary in their incidence so that cities develop more distinctive features as ‘consumer cities’, ‘knowledge hubs’ or ‘diversified agglomerations’ (see, for example, Markusen and Schrock 2006, European Commission 2007; Turok forthcoming).

2. Methodological and measurement issues

The definition and measurement of city resurgence is not straightforward (Cheshire 2006). The main territorial unit that should be considered is the entire metropolitan area rather than the central city. This is to avoid the possibility that the improvement is localised and occurs at the expense of activity displaced from elsewhere in the same city. There are at least two dimensions of city-wide revival to be considered: absolute and relative. Both are important, but each reflects rather different features. The notion that ‘cities are back’ (ODPM 2004) implies some kind of (unspecified) improvement in absolute urban conditions compared with some past period. In other words, conditions are better than they used to be. Strictly speaking, resurgence should be defined as a period of absolute decline followed by a turnaround and subsequent recovery. There is an argument for expanding this to include acceleration from standstill or slow growth to faster growth, in which case

'emergence' might be a better term (Storper and Manville 2006). In both situations a long-term perspective is essential to avoid misinterpreting short-term fluctuations associated with common economic cycles. Many descriptions of revitalised cities fail to recognise this. It is also a weakness of the otherwise thorough State of European Cities Report, which is generally restricted to the short period 1996–2001 (European Commission 2007).

One might also expect the idea of resurgence to imply that the position of cities has improved relative to the rest of the country, i.e., towns and rural areas. This could be an important complement to the absolute dimension of change because without it, economic improvements may simply be associated with national trajectories and contextual factors that have little specifically to do with cities. If cities are resurgent, one might expect them to be growing more strongly (or declining less quickly) than other kinds of places, not simply that urban conditions are better than they used to be. In other words, cities should be gaining rather than losing population, jobs or investment to other areas. One complication is that if their physical growth is restricted by land-use planning constraints, the pressure of people and firms wanting to locate in cities may be more apparent in property prices than in population or employment growth. Growth pressures may squeeze out lower-value activities and lower-income groups and be revealed in higher average incomes rather than jobs and population. In an international context, questions about the degree of resurgence could also involve comparisons between cities in different countries. For example, are British cities growing faster than those in France or Italy?

In terms of measurement, the first proposition outlined earlier about the general advantages of agglomeration implies a relatively 'extensive' process of growth, with activity being reproduced on a larger scale as a result of gains from flexibility, efficiency and lower costs. This might be measured by increases over time in economic output or employment. The second proposition about increased innovation and knowledge-based activity implies a more 'intensive' process, or higher 'quality' growth associated with more capital investment or higher-value output. This might be measured by increases in productivity or average income per head of population. The third 'consumer city' proposition implies a somewhat extensive growth process, since consumer and household services, tourism, retailing, entertainment and hospitality tend to be relatively low value-added sectors. Two of the indicators that might measure different aspects of this process are consumer spending and population growth.

Consistent time-series economic data for cities across Europe is unavailable from established official sources. Eurostat is limited to the 1990–2005 period and incomplete in its coverage of different cities, countries and indicators. The Urban Audit has partial data for an assortment of 258 cities of widely varied sizes for the 1991–2001 timeframe. After extensive consideration of these and other sources, the Cambridge Econometrics European regional dataset was found to be most useful. It covers the period 1980 to 2005 for NUTS3 units for Western Europe and includes data on the six indicators identified above (full definitions are given in Appendix 1). NUTS3 units are not ideal building blocks for defining cities, partly because of some inconsistencies in boundary identification across countries. However, there is little alternative for economic analysis without very substantial investment in creating an original dataset. NUTS3 units were included in the analysis presented here if they contained a core city (defined as a continuous built-up area) with a population of over 200,000 in the year 2000. The source of the information on built-up areas was Brinkoff's (2006) database on city populations. If the NUTS3 boundary for a particular city cut across the continuous built-up area, the adjacent unit(s) was amalgamated to form a larger conurbation.

This procedure yielded a total of 151 ‘cities’ in Western Europe, covering almost half (49%) of the continent’s total population in 2005. The number of cities in each country and their share of the total national population were as follows: Austria (4 cities, 42% of the 2005 population); Belgium (5, 39%); Denmark (2, 47%); Finland (3, 43%); France (28, 66%); Greece (2, 43%); Ireland (1, 29%); Italy (16, 41%); Netherlands (9, 44%); Portugal (2, 40%); Spain (17, 65%); Sweden (3, 51%); UK (31, 57%); West Germany (excluding 8 former GDR cities) (28, 46%).

3. Absolute changes in the aggregate position of cities

The first issue explored is whether the economic position of European cities considered in aggregate has improved by historical standards. Are absolute urban conditions better than they used to be? Figure 1 shows the long-term trajectory for all European cities treated together for four important variables that capture different aspects of urban change: output, employment, average incomes and population. It is presented as an index of change to permit comparisons and is based on the average growth rates of cities to avoid distortion by the largest.

Figure 1 shows that overall economic output in cities has risen steadily since 1980, after several years of slow growth in the early 1980s and a short-lived downturn in the early 1990s. The value of economic activity, or wealth creation, is almost 75% greater than it was 25 years ago. European cities are clearly much better off in terms of the sheer amount of economic production than they were before, and the long-term rate of change (the slope of the output curve) does not appear to have altered radically. ‘Continued growth’ is a more accurate summary description of the last 25 years than resurgence.

The income trajectory is slightly different. Average incomes have not risen by as much or as steadily as output. Most city residents appear to be much better off financially than

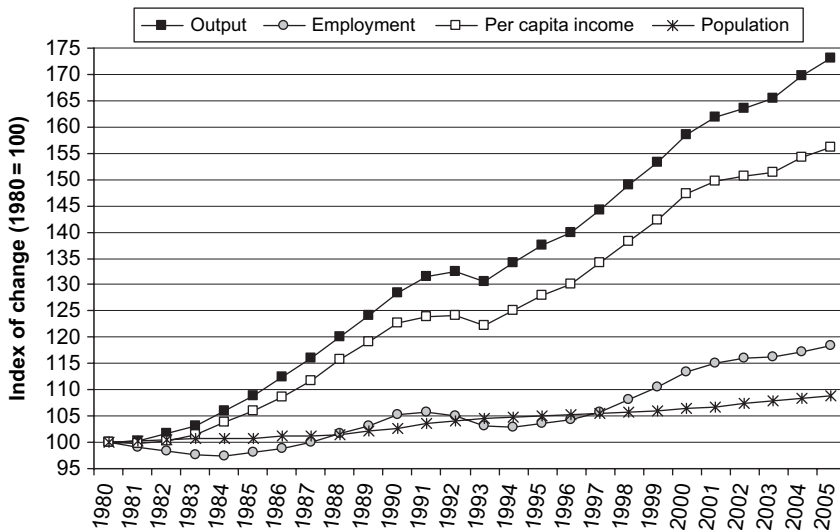


Figure 1. Growth trajectories of West European cities, 1980–2005.

Note: These indices are based on the arithmetic means (averages) of the 151 cities.

they were in the early 1980s (average incomes are some 55% higher – and this is after allowing for the effects of inflation), but the long-term rate of increase in incomes appears to have slowed down since the 1980s. This cannot be described as resurgence.

The employment pattern is quite different again. There are almost 20% more jobs in European cities than there were in 1980 and the trajectory of change appears to have been more volatile than for output or income – employment seems to be more sensitive to the economic cycle. There has been a longer period of employment growth since around 1994 than there was before, and the rate of growth appears to have been slightly stronger than it was in the late-1980s. This comes closer to resembling resurgence, although caution is important in the light of the cyclical historical profile.

The change in city population has been slower and more stable. There are now nearly 10% more people in European cities than there were in 1980. Slow, steady growth would be a more appropriate description of the population trajectory than resurgence.

Table 1 provides the actual rates of change from year to year for the four variables shown in Figure 1, together with an additional variable, productivity. This is measured by output divided by employment. The period 1980–2005 is subdivided into five shorter periods in order to permit more detailed comparisons of the rate of change over time and to control for the effects of the economic cycle. The length of each subperiod varies between four and six years and is chosen to capture the different phases of the cycle as closely as possible. Use of uniform, but more arbitrary, time periods could result in misleading conclusions about the rate of change over time.

The data in Table 1 suggest that cyclical effects are very strong and dominate the trajectories of urban change over the period 1980–2005. The early 1980s was a period of recession followed by strong growth in the late 1980s. Another slowdown occurred in the early 1990s, followed by strong growth in the late 1990s and then slower growth in the early 2000s. This is the pattern for output, employment and average incomes. The population trajectory is also cyclical, but possibly lagging several years behind the economic cycle. Productivity has declined steadily over the whole period.

It would clearly be wrong to characterise this profile of aggregate urban change as resurgent. The employment figures suggest a slight upward trajectory over the long term and a more sustained upswing over the last cycle, but the worse output and income statistics and the declining productivity figures raise doubts about the durability and ‘quality’ of recent economic improvements. The most recent five-year period (2001–2005) has been less positive than the average over the previous 25 years.

Table 2 shows the proportion of cities that were growing in terms of each indicator over the different time periods. The cyclical pattern appears to be the dominant feature once again. It is most apparent in the case of employment, where only a third of cities increased jobs in the early 1980s and early 1990s, compared with nearly four-fifths in the

Table 1. Rates of year-on-year absolute change in cities (%), 1980–2005.

	1980–1984	1985–1990	1991–1994	1995–2000	2001–2005	1980–2005
Output	1.4	3.3	1.1	2.8	1.8	2.2
Employment	-0.6	1.3	-0.6	1.6	0.9	0.7
Productivity	2.3	2.0	1.9	1.3	1.0	1.6
Average income	0.9	2.8	0.5	2.8	1.2	1.8
Population	0.2	0.3	0.5	0.2	0.5	0.3

Table 2. The proportion of cities growing in absolute terms (%), 1980–2005.

	1980–1984	1985–1990	1991–1994	1995–2000	2001–2005	1980–2005
Output	72	90	69	88	83	82
Employment	32	79	33	78	70	62
Productivity	80	78	77	71	72	75
Average income	64	88	60	88	77	78
Population	60	71	83	68	83	73

late 1980s and late 1990s. The proportion of cities with increasing output and average incomes was generally higher than for employment in each period. This is consistent with the data in Table 1.

Taken together, this evidence on absolute change does not show that European cities have experienced a period of sustained decline or stagnation followed by strong recovery. Economic conditions have been much more variable over time. There is clear evidence of a cyclical pattern of change in the output, employment and income trajectories. One slight qualification, with a positive implication for cities, is that there has been an unusually long upswing over the last decade. The recession that might have been anticipated in the early 2000s, from the experience of the early 1980s and early 1990s, did not materialise or was delayed. Another important point is that the long-term trend for employment appears to be more positive than for output, income or productivity. This is contrary to what one might have expected if city economies were undergoing more intensive growth and upgrading to higher-value and more productive activities.

4. Relative changes in the aggregate position of cities

The second dimension of resurgence is relative change. This section explores whether the economic position of cities has improved in relation to the rest of their countries. Figure 2 shows the pattern for two of the main indicators, employment and average incomes. They are chosen partly because they reflect contrary trends in terms of absolute change and because one is more likely to capture intensive change than the other. The indices of change are based for simplicity on the sum total of the data for the cities and for the rest of their countries.

The average income trajectory for cities followed that of the rest of each country during the 1980s. However, urban incomes lagged behind other places during the early 1990s, so a gap emerged. Since the mid 1990s urban incomes have been catching up, although there is still a slight disparity. Hence city residents appear to be slightly worse off financially relative to residents elsewhere than they were in the 1980s, although both groups are obviously much better off than they were before. It would be misleading to describe the recent relative performance of cities as resurgent, unless one were taking a short-term view.

Figure 2 also shows that the employment trajectory for cities followed that elsewhere until the late 1990s. Since then, the rate of jobs growth in cities has been stronger than that in other places. Hence cities appear to be performing better than other areas. Simple growth or emergence would be more accurate descriptions of the recent improvement than resurgence, because cities were not consistently lagging behind before this.

Table 3 shows the rates of change in cities relative to the national rate from year to year for the five variables shown in Table 1. The same time periods are used to control for

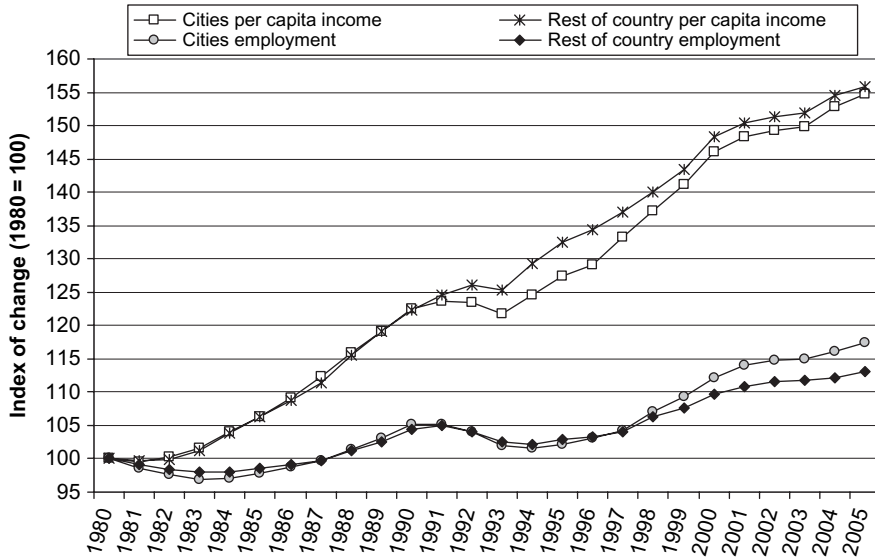


Figure 2. Relative growth of West European cities, 1980–2005.

Note: These indices are based on the total sums of 151 cities and the rest of the country.

Table 3. Rates of year-on-year relative change in cities (%), 1980–2005.

	1980–1984	1985–1990	1991–1994	1995–2000	2001–2005	1980–2005
Output	0.2	0.1	-0.2	0.0	0.0	0.0
Employment	0.1	0.0	0.1	0.0	0.1	0.0
Productivity	0.1	0.0	-0.2	0.1	-0.1	0.0
Average income	0.0	-0.1	-0.4	0.1	0.0	-0.1
Population	0.0	0.0	0.0	-0.1	0.0	0.0

Note: Negative values mean the cities’ average growth rate is below the national rate.

the effects of the economic cycle. If resurgence was the dominant feature, one would expect mostly negative signs in the 1980s and early 1990s to become mostly positive signs in the last decade. In fact there is no indication of any change in the relative position of cities over the last 25 years. There have been odd shifts in the position of cities for particular variables at specific points in time, but no consistent pattern of faster or slower growth over the whole period. Cities have been slightly more likely to exceed other places in terms of employment and output growth, but not in income or population terms, and this pattern has not altered over the 25-year period.

Table 4 shows the proportion of cities that were growing in relative terms over each time period. The striking feature of this is the similar proportion of cities that were growing and declining for each variable and in each period. This indicates no significant change in the relative position of cities over the 1980–2005 period. It is consistent with the data in Table 3. There have always been slightly more cities declining than growing in relative population terms, but this has not altered over the period.

Table 4. The proportion of cities growing in relative terms (%), 1980–2005.

	1980–1984	1985–1990	1991–1994	1995–2000	2001–2005	1980–2005
Output	54	52	45	50	51	50
Employment	52	48	51	52	51	51
Productivity	52	49	49	51	48	50
Average income	49	48	46	51	48	49
Population	45	49	47	44	47	47

Considering all the evidence on relative change together, this section does not show that the fortunes of European cities have diverged substantially from other places over the last 25 years. One minor qualification is that the rate of employment growth in cities has been slightly stronger than that elsewhere. This has been offset by average incomes lagging slightly behind. These trends are not what one might have anticipated if city economies were progressing towards producing more valuable goods and services than other places.

5. National differences

Before turning to analyse differences between individual cities, it is important to explore whether there are any national patterns present. Is there more evidence of resurgent cities in some countries than others? This is not inevitable, especially bearing in mind the argument that globalisation is tending to decouple or ‘delink’ cities from their national economies (Lever 1997). The reasons for expecting national differences are that country-specific fiscal and monetary regimes matter for macroeconomic conditions and the confidence of investors and consumers, that national labour market and immigration regulations matter for patterns of overall employment change, and that national policy frameworks control the powers and resources available to city-level authorities. Although closer European integration is changing the situation, national contexts still vary considerably in these respects across Europe.

The next step in this analysis was to prepare the same data presented in Tables 1 and 3 for each country separately, focusing for reasons of numerical significance on the countries with more than six large cities covered by the present study. The two countries showing the clearest indication of improved urban conditions over the last 25 years are the UK and Spain. Tables A1 and A2 in the Appendix contain the full set of data on absolute and relative change over the 1980–2005 period for the UK and Spain.

The economic cycle dominates the trajectories of absolute change in British and Spanish cities over this period. There have been two full cycles, as in Europe as a whole. A close comparison of Table 1 with tables A1 and A2 suggests that the main difference from the rest of Europe is that the last upswing (1995–2005) has been stronger in British and Spanish cities and lasted longer than elsewhere. This was the case for output, employment and average incomes. It is most apparent from comparing the last two columns of Tables 1, A1 and A2. Although city fortunes in the UK and Spain have been slightly better than elsewhere, it would be misleading from this evidence to characterise their trajectory as resurgent. The average rates of growth over the most recent decade have been slightly lower than during the upturn of the late 1980s.

Turning to the data on relative change (the lower half of tables A1 and A2), there is little indication of sustained improvement in the fortunes of UK and Spanish cities

compared with other parts of their countries. Cities in both countries grew slightly more strongly in terms of output and incomes over the most recent period (2001–2005) than the average over the two previous decades (compare the last two columns); but this has happened before, during the 1980s.

The country with the clearest indication of deterioration in urban conditions over the last 25 years is Germany. The upper half of Table A3 in the Appendix shows the familiar economic cycles. But the marked slowdown during the last decade in output, employment and average incomes compared with the late 1980s is unusual (compare columns 5 and 6 with 3). The lower half of Table A3 shows that German cities have consistently tended to lag behind the rest of Germany. There has been no change in their relative position over the last two and a half decades.

Table 5 extends the comparison to cities in all countries. It focuses on employment for the sake of simplicity and compares the rate of jobs growth in the cities between 1995 and 2005 with the rate of jobs growth during the previous decade. This enables reasonably robust comparison of change over two discrete economic cycles. Countries are listed in order of the degree of acceleration in employment growth between the two periods (the middle column). The country with the largest increase was Finland (with three cities), followed by Ireland (Dublin) and then Sweden (with three cities) and Spain (with 17 cities). Cities in Finland and Sweden both experienced a distinct turnaround from urban job loss to job growth. They can clearly be characterised as resurgent in terms of absolute change. Dublin and the cities in Spain were already growing quite strongly, hence their trajectories are better described as emergent.

Cities in five other countries can also be characterised as broadly resurgent since they started from a position of no or low growth: UK, Denmark, France, Italy and Belgium. The rate of urban employment growth barely changed in the five remaining countries: Germany, Greece, Austria, Portugal and The Netherlands. None of them were particularly

Table 5. Growth in employment in West European cities, 1985–2005.

	Change in employment in cities, 1985–1994 (average % p.a.)	Change in employment in cities, 1995–2005 (average % p.a.)	Difference between columns 2 and 3 (%)	Rank in 1985–1994	Rank in 1995–2005	Change in rank 1985–1994 to 1995–2005
Finland	-0.9	2.4	3.3	13	3	+10
Ireland	2.1	4.7	2.6	1	1	0
Sweden	-0.9	1.0	1.9	14	8	+6
Spain	1.7	3.3	1.6	3	2	+1
UK	0.0	1.3	1.3	11	6	+5
Denmark	-0.1	0.8	0.9	12	11	+1
France	0.2	1.0	0.8	8	7	+1
Italy	0.2	0.9	0.7	9	10	-1
Belgium	0.1	0.8	0.7	10	13	-3
The Netherlands	1.6	1.7	0.1	4	4	0
Portugal	0.9	1.0	0.1	5	9	-4
Austria	0.8	0.8	0.1	6	12	-6
Greece	1.7	1.7	0.0	2	5	-3
West Germany	0.7	0.6	-0.1	7	14	-7

Note: Columns 2–3 show the average rate of change in employment in the cities in each country, 5–6 the rankings, and 7 the change in rank between the two periods.

poor performers, since they were all creating jobs at a rate above average during 1985–1994. It is simply that the rate of job growth did not increase in the following decade, so they tended to fall behind some of the other countries.

Table 6 focuses on the rate of change in average income across cities. The country with the largest increase in urban incomes over the two periods was Ireland. It was followed by Greece, Sweden, Finland and Austria. Cities in these five countries were different from the rest, which experienced little or no increase in urban incomes over the period. Ireland, Greece and Finland are best described as emergent because average incomes were already rising (although, with the exception of Ireland, not very strongly in compared to other countries), but Austria and Sweden might be characterised as broadly resurgent since they started from a position of very low income growth.

Cities in four other countries experienced little or no increase in urban incomes over the period: UK, Denmark, Spain and France. Hence they cannot be described as resurgent or emergent according to this indicator. Stability would be more accurate. Cities in the five remaining countries experienced a slowdown in the growth rate of urban incomes. This was most apparent in the case of Portugal, but it also affected Italy, Germany, Belgium and The Netherlands.

The final column of Table 6 also shows the average urban incomes in each country. Cities in Greece were starting from a very low level in the 1980s and there was still considerable scope for further catching up by 2005. Ireland was clearly pulling ahead of the rest and urban incomes in Sweden and Finland were also growing strongly from a comparatively high level. Cities in Spain were starting from a very low level in the 1980s, but not catching up at the rate of Greece, and cities in Portugal were falling further behind from a level that was already the lowest at the outset. Urban incomes in Germany, Belgium and Netherlands were starting from a high level but not increasing at the rate of some other prosperous countries.

Table 6. Growth in average income in West European cities (2000 Euro), 1985–2005.

	Change in urban incomes, 1985–1994 (average % p.a.)	Change in urban incomes, 1995–2005 (average % p.a.)	Difference between columns 2 and 3 (%)	Rank in 1985–1994	Rank in 1995–2005	Average urban incomes in 2005
Ireland	4.3	7.0	2.7	1	1	44,300
Greece	1.2	3.7	2.5	12	3	16,200
Sweden	0.7	3.0	2.3	13	4	35,700
Finland	1.6	3.7	2.1	10	2	32,300
Austria	0.4	2.2	1.8	14	8	29,900
UK	2.0	2.6	0.6	6	6	29,200
Denmark	1.7	2.0	0.3	7	9	36,200
Spain	2.4	2.7	0.3	4	5	16,600
France	1.6	1.6	0.0	11	10	23,700
The Netherlands	2.5	2.3	–0.2	3	7	28,900
Belgium	1.7	1.5	–0.2	9	13	28,800
West Germany	1.7	1.2	–0.5	8	14	32,300
Italy	2.3	1.7	–0.6	5	11	22,200
Portugal	2.6	1.6	–1.0	2	12	14,500

Note: Columns 2–3 show the rate of change in mean GDP per capita (constant 2000 Euro) of cities in each country, 5–6 the relative rankings, and 7 the level in 2005.

Taken together, the evidence in this section suggests that several countries have experienced resurgent urban growth over the last decade. With employment as the indicator, the two most obvious examples are Finland and Sweden. Cities in the UK, Denmark, France, Italy and Belgium have also shown signs of an employment-led revival. In Ireland and Spain, the rate of job growth accelerated from a level that was already comparatively high. Turning to average income as the indicator, the two main examples of resurgence are Austria and Sweden, although urban incomes have also accelerated in Ireland, Greece and Finland.

Overall, Ireland stands out from the rest in terms of consistent very strong city performance. Cities in Spain have also shown consistent growth, although from a low level at the outset. Among the large industrialised economies, cities in the UK have shown stronger signs of revival than those in France, Germany, The Netherlands and Italy. This revival has been more apparent in terms of employment than average incomes.

6. Differences between individual cities

It is already apparent that some cities have grown more strongly than others. This section considers the differences between individual cities more closely, focusing particularly on cities that have experienced resurgence.

6.1. Changes in employment

We begin with employment as the indicator. Table 7 lists the 25 cities that have experienced the largest change in the rate of jobs growth between 1985–1994 and 1995–2005. It is equivalent to Table 5, but for individual cities rather than countries. Cities are listed by the degree of acceleration in employment growth between the two periods.

There is a striking pattern to these 25 cities, and they can be subdivided easily into resurgent and emergent categories. The resurgent cities all experienced job loss (or stand-still in one case) between 1985–1994, followed by job growth between 1995–2005. There are 16 of them. The nine emergent cities all experienced job growth in both periods, but much faster in the second period.

No less than nine of the 16 most resurgent cities in Europe are in the UK, including London, Liverpool and Newcastle. The three Finnish cities are also in the top 16 and indeed they are the three most resurgent cities of all. The three Swedish cities are also in the top 16. The other one is Spanish (Gijón-Oviedo).

In contrast, eight of the nine most emergent cities are in Spain, including Madrid, Málaga and Bilbao. The other one is Dublin. Jobs growth in these cities was very strong over the last decade – over 3% in all cases except one. The strength of the national pattern reinforces the point that the national context matters a great deal for city trajectories.

By way of contrast, Table A4 in the Appendix lists the 25 cities that have experienced the largest decline in the rate of jobs growth between 1985–1994 and 1995–2005. There are two broad categories. Three cities shifted from job growth to job loss, including two in the UK and one in Germany. This was obviously a big turnaround for the worse. The rest experienced a slowdown in the rate of jobs growth. In most cases the degree of slowdown was quite modest. The three Dutch cities, for example, slowed from a growth rate of about 2.5% to about 2% or just above.

There was also a clear national pattern to the cities that experienced a slowdown or decline. No less than 14 of them are in Germany, including Hamburg, Frankfurt, Munich and Bonn. The others are in the UK (four), The Netherlands (three) and one each in

Table 7. Cities with accelerated growth in employment, 1985–2005.

	Change in employment, 1985–1994 (average % p.a.)	Change in employment, 1995–2005 (average % p.a.)	Difference between columns 2 and 3 (%)	Rank in 1985–1994	Rank in 1995–2005
Málaga (ES)	1.1	4.5	3.4	32	3
Tampere (FI)	-1.5	1.9	3.4	150	30
Turku (FI)	-2.6	0.7	3.3	151	105
Helsinki (FI)	0.0	3.1	3.1	113	11
Palma de Mallorca (ES)	1.8	4.8	3.0	16	1
Alicante (ES)	1.1	3.8	2.7	39	5
Derby (UK)	-0.7	2.0	2.7	141	27
Dublin (IE)	2.1	4.7	2.6	11	2
Sheffield (UK)	-0.8	1.6	2.4	145	38
Bilbao (ES)	0.1	2.4	2.3	103	17
Vitoria-Gasteiz (ES)	1.2	3.4	2.2	29	7
Liverpool (UK)	-1.2	1.0	2.2	149	75
Southampton- Portsmouth (UK)	-0.1	2.1	2.2	119	23
Sunderland (UK)	-0.1	2.1	2.2	118	25
Gothenburg (SE)	-1.0	1.1	2.1	147	72
London (UK)	-0.6	1.5	2.1	135	45
Coventry (UK)	-0.2	1.7	1.9	124	36
Murcia (ES)	1.9	3.7	1.8	15	6
Granada (ES)	1.2	3.0	1.8	28	12
Stockholm (SE)	-0.8	1.0	1.8	142	76
Gijón-Oviedo (ES)	-0.3	1.3	1.6	131	51
Malmö (SE)	-0.9	0.7	1.6	146	101
Madrid (ES)	2.5	4.1	1.6	4	4
Newcastle (UK)	-0.3	1.3	1.6	127	56
Stoke (UK)	-0.3	1.2	1.5	130	61

Greece, Austria, Portugal and Spain. This reinforces the point made in the previous section about Germany being the country with the clearest indication of deterioration in urban conditions over the last two decades.

Figure 3 conveys a clearer impression of the importance of the national dimension in a scatterplot showing all 151 cities on the basis of their rates of employment change in 1985–1994 and 1995–2005. In the top right quadrant are cities with strong jobs growth in both periods: Spanish cities feature disproportionately here. In the bottom right sector are cities with improved jobs growth in the latter period: British cities are clustered here. German cities are overrepresented in the area where jobs growth was slower in 1995–2005 than in 1985–1994. Overall, the figure suggests some relationship between the rates of job growth in both periods, but is most useful is revealing different national clusters.

6.2. Changes in average incomes

Turning to income as the indicator, Table 8 lists the 25 cities that have experienced the largest change in the rate of income growth between 1985–1994 and 1995–2005. It is equivalent to Table 6, but for individual cities. Cities are listed in order of the degree of acceleration in income growth between the two periods.

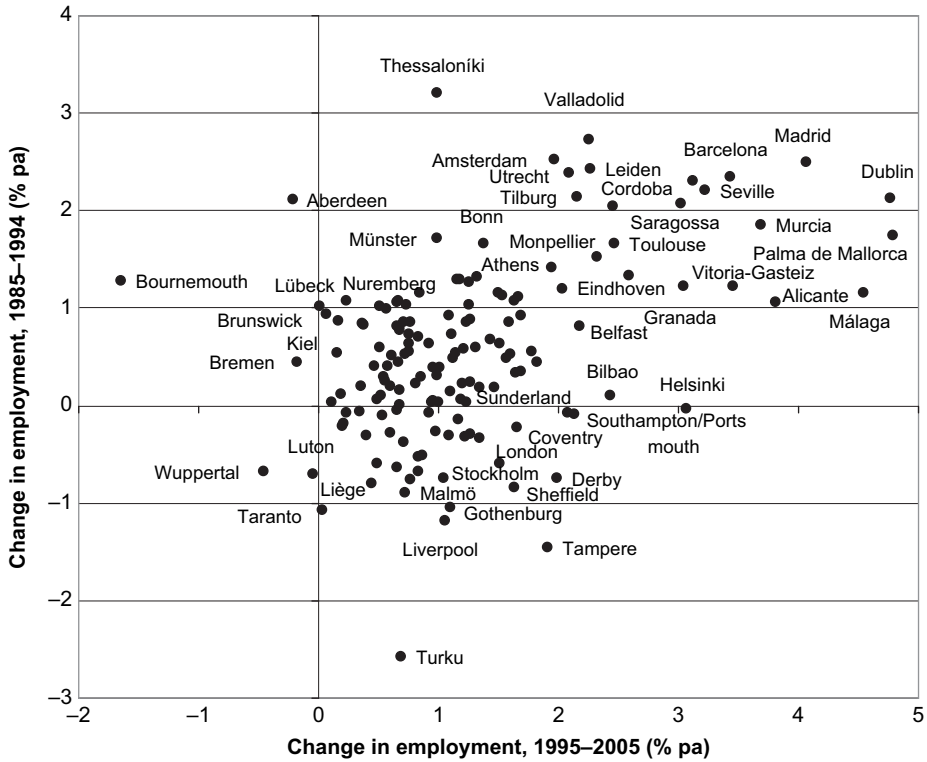


Figure 3. Cities with different rates of employment change, 1985–2005.

There is a wide spectrum from cities with no or low growth in average incomes during the first decade (such as Linz (Austria), Malmö (Sweden) and Liverpool (UK)) to those with high growth in both periods (such as Dublin, Bristol and Derby (UK)). There were no cities with declining incomes followed by growing incomes – the strict definition of resurgence.

In terms of national representation, eight of the 25 cities with the biggest acceleration in the rate of income growth are in the UK, four in Spain, three each in Finland, Austria and Greece, two in Sweden, and one in France and Ireland. This confirms the prominence of cities in the UK, Finland and Sweden among the biggest improvers over the last two decades.

The final column in Table 8 shows the absolute level of average incomes in 2005. There is clearly a wide spectrum from some of the Spanish and Greek cities (including Athens and Málaga) to those in Scandinavia and Ireland (Stockholm, Dublin and Helsinki). The former have been increasing their prosperity from a low level, whereas the latter have been pulling further ahead from most European cities. Within the UK there is a broad spectrum from Liverpool to Bristol and Derby.

In contrast, Table A5 in the Appendix lists the 25 cities with the largest slowdown in the rate of income growth between 1985–1994 and 1995–2005. There is a wide spectrum from cities that remain highly prosperous, such as Wiesbaden and Frankfurt (both in Germany) and Aberdeen (UK), to poor cities such as Porto (Portugal) and Lens-Bethune

Table 8. Cities with accelerated growth in average incomes (2000 Euro), 1985–2005.

	Change in income, 1985–1994 (average % p.a.)	Change in income, 1995–2005 (average % p.a.)	Difference between columns 2 and 3 (%)	Rank in 1985–1994	Rank in 1995–2005	Average incomes in 2005
Thessaloníki(GR)	1.3	4.4	3.1	116	3	16,268
Dublin (IE)	4.2	6.9	2.7	1	1	44,285
Malmö (SE)	0.2	2.6	2.4	148	39	29,997
Tampere (FI)	1.2	3.6	2.4	124	9	27,207
Linz (AT)	0.0	2.4	2.4	149	52	30,493
Vitoria-Gasteiz (ES)	1.1	3.4	2.3	130	11	24,081
Gothenburg (SE)	0.8	3.0	2.2	142	22	32,163
Stockholm (SE)	1.0	3.1	2.1	136	15	44,818
Liverpool (UK)	0.4	2.5	2.1	147	46	21,418
Helsinki (FI)	1.9	3.9	2.0	76	6	39,639
Turku (FI)	1.8	3.7	1.9	80	7	30,193
Sheffield (UK)	0.9	2.8	1.9	140	32	23,081
Athens (GR)	1.2	3.1	1.9	121	20	16,176
Newcastle (UK)	1.4	3.1	1.7	107	17	27,637
Graz (AT)	0.8	2.5	1.7	141	45	29,048
Manchester (UK)	1.2	2.7	1.5	119	37	27,843
Southampton- Portsmouth (UK)	1.3	2.8	1.5	112	31	30,010
Bristol (UK)	2.5	4.0	1.5	32	5	36,480
Salzburg (AT)	0.5	1.9	1.4	146	78	30,246
La Coruña (ES)	1.5	2.9	1.4	101	29	14,775
Gijón-Oviedo (ES)	1.4	2.7	1.3	109	35	15,097
Sunderland (UK)	1.7	3.0	1.3	94	24	25,222
Marseille (FR)	1.0	2.3	1.3	137	55	25,032
Derby (UK)	3.6	4.8	1.2	5	2	39,225
Málaga (ES)	1.9	3.0	1.1	75	25	13,014

and Toulon (both in France). It should be noted that none of the cities experienced an absolute decline in income during either decade.

It is something of a surprise to see cities such as Barcelona, Madrid, Frankfurt, Hamburg, Bonn and Milan among this group, given their successful reputations. Part of the explanation may be associated with national factors. Hence, there are 10 German cities among the 25, along with five Italian, three French, two each from Spain and The Netherlands, and one each from Belgium, Portugal and the UK.

Figure 4 reinforces the national dimension by comparing the 151 cities' average incomes in 2005 with the change in their income growth rate over the last two decades. In the top right quadrant are prosperous cities with recent acceleration in income growth. In the bottom left are comparatively poor cities with a slowdown in income growth. The figure reveals no obvious relationship between the two variables (high-income cities were no more likely to be resurgent than poor cities), but it does show different national clusters. UK cities are overrepresented in the top section – places with accelerated income growth; German cities are concentrated in the lower section – income slowdown.

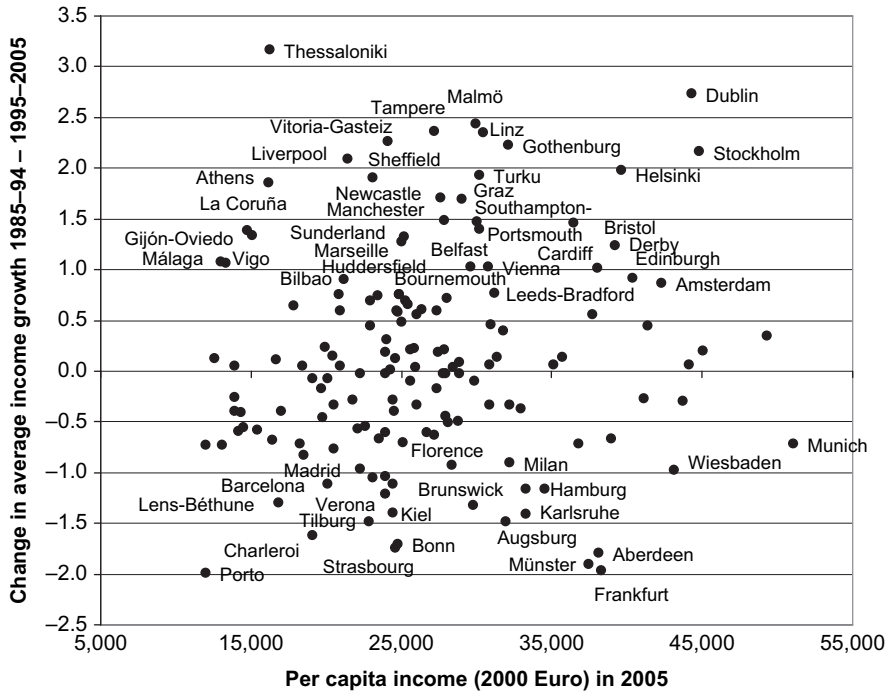


Figure 4. Cities with different levels of income and rates of growth.

6.3. Changes in retail spending

Table 9 lists the 25 cities that have seen the largest acceleration in retail spending between 1985–1994 and 1995–2005. There is a wide spectrum from the five cities with declining retail expenditure during the first decade (Tampere and Turku (Finland), Luton (UK), Bologna (Italy) and Trieste (Italy)) and the seven with low growth below 1% per annum (including two from the UK and Denmark, and one each from Finland, The Netherlands and France). These cities can be described as broadly resurgent because of the step-change in their subsequent trajectories. At the other end of the spectrum are cities such as Stockholm, Bristol and Edinburgh, which experienced acceleration in retail spending, but from an already high level. Hence emergence is a better description.

In terms of national representation, 12 of the 25 cities with the biggest acceleration in retail spending are in the UK, three each in Finland and Sweden, two each in Italy and Denmark, and one in Ireland, The Netherlands and France. This reaffirms the prominence of cities in the UK, Finland and Sweden among the biggest improvers over the last two decades. In terms of the rate of increase in retail spending, the three Finnish cities are in a class of their own.

Table A6 in the Appendix lists the 25 cities with the largest slowdown in retail spending between 1985–1994 and 1995–2005. There are essentially two categories of city. The first covers the three UK cities that experienced a slowdown but from a high level and a high rate of increase in the first decade (Aberdeen, Cardiff and Belfast). The second covers the 22 German cities that shifted from a slow rate of increase in the first decade to an absolute decline in retail spending during the second decade. The dominance of German

Table 9. Cities with accelerated growth in retail spending (2000 Euro), 1985–2005.

	Change in retail spending, 1985–1994 (average % p.a.)	Change in retail spending, 1995–2005 (average % p.a.)	Difference between columns 2 and 3 (%)	Rank in 1985–1994	Rank in 1995–2005	Retail spending per capita in 2005
Tampere (FI)	-1.0	4.9	5.9	128	14	5,637
Turku (FI)	-0.4	5.0	5.4	126	13	6,281
Helsinki (FI)	0.5	5.7	5.2	102	6	6,553
Gothenburg (SE)	1.3	5.0	3.7	59	12	6,880
Malmö (SE)	1.2	4.7	3.5	62	19	6,278
Dublin (IE)	2.1	5.1	3.0	28	10	4,514
Liverpool (UK)	0.5	3.4	2.9	103	41	6,135
Sheffield (UK)	1.1	4.0	2.9	70	34	6,295
Stockholm (SE)	3.1	5.6	2.5	14	7	7,672
Luton (UK)	-1.1	1.3	2.4	129	99	3,229
Copenhagen (DK)	0.6	3.0	2.4	97	51	6,421
Manchester (UK)	1.8	4.1	2.3	38	30	7,226
Nottingham (UK)	0.7	2.9	2.2	93	53	5,213
Bologna (IT)	-1.8	0.3	2.1	130	122	2,977
Hague (NL)	0.2	2.2	2.0	109	67	4,109
Aarhus (DK)	1.0	2.9	1.9	82	53	6,349
Southampton- Portsmouth (UK)	2.7	4.6	1.9	20	22	7,311
Coventry (UK)	1.3	3.1	1.8	52	46	5,625
Newcastle (UK)	2.7	4.4	1.7	21	26	8,593
Trieste (IT)	-0.2	1.5	1.7	124	94	8,454
Leeds-Bradford (UK)	3.0	4.7	1.7	16	18	4,419
Bristol (UK)	4.2	5.9	1.7	7	5	10,490
Edinburgh (UK)	3.4	5.1	1.7	10	11	8,857
Bordeaux (FR)	0.6	2.2	1.6	97	67	5,353
Huddersfield- Wakefield- Halifax (UK)	2.1	3.6	1.5	27	38	6,545

cities in this table is particularly striking, and confirms the prominence of these cities among the weakest performers over the last two decades.

Figure 5 compares the cities' level of retail spending per capita in 2005 with the change in retail spending over the last decade. In the top right sector are high-spending cities with strong recent growth. Almost all are in the UK. In the top left are low-spending cities with strong recent growth. Most are in Spain, Portugal or Greece. German cities are in the bottom left – low spending with a recent decline. The figure suggests some relationship between the two variables, which is intuitive and unsurprising.

6.4. *Distinctive trajectories?*

There was a proposition in section 1 that cities may follow different trajectories, some of which are more intensive or narrowly focused than others – knowledge hubs, consumer cities or diversified agglomerations. Is there any evidence for this from the data

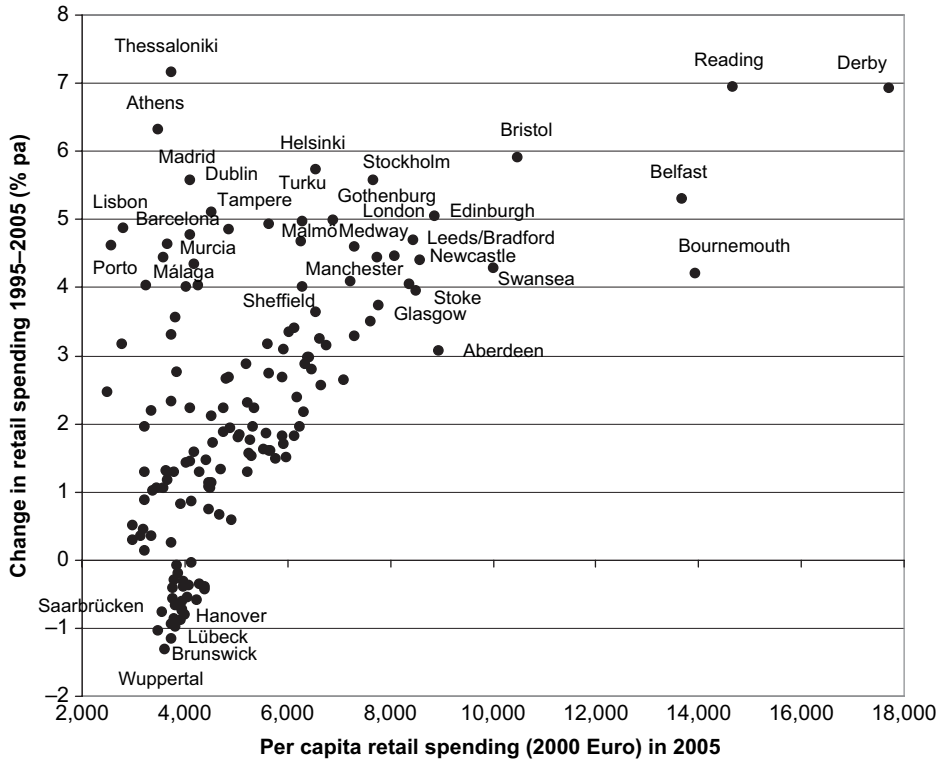


Figure 5. Cities with different levels of retail spending and rates of growth.

available, or do the same cities tend to feature strongly or weakly according to the different dimensions?

One indication of consistent performance is the number of cities that feature in all of the ‘top 25’ tables of accelerated growth (Tables 7–9). If different trajectories were the norm, one would not expect much overlap. In fact, 11 cities feature in all three tables, suggesting that these forms of growth tend to go together. Places with strong all-round improvement include Finland’s three cities, Sweden’s three cities, Dublin and four UK cities (Liverpool, Newcastle, Sheffield and Southampton-Portsmouth). Another eight cities feature in two of the three tables: three from Spain (Málaga, Vitoria-Gasteiz and Gijón-Oviedo) and five from the UK (Bristol, Coventry, Derby, Manchester and Sunderland).

At the other end of the spectrum, seven cities feature in all three tables of slowed growth (Tables A4–A6). Six of them are in Germany (Lübeck, Brunswick, Münster, Hamburg, Frankfurt and Kiel) and one in the UK (Aberdeen). Another nine cities feature in two of the three tables: seven in Germany (Nuremberg, Kassel, Bremen, Ulm, Bonn, Karlsruhe and Aachen), one in Portugal (Porto) and one in The Netherlands (Utrecht).

It seems that performance across the different dimensions often goes together. Strong growth in average incomes is accompanied by accelerated growth in employment and retail spending, although the balance between these may of course vary in important ways. The Scandinavian cities and Dublin are attractive models of prosperous cities with strong income growth and reasonable jobs growth over the last decade, suggesting expansion of

high-value activity and rising productivity. UK cities tend to be less prosperous on average and have had slightly lower income growth but stronger jobs growth, suggesting limited productivity growth. Spanish cities have had very job-rich growth with slower income growth in comparison, suggesting expansion of lower-value activity. Spain's relatively strong population growth through immigration may have depressed wages and facilitated growth of routine jobs. In contrast, German cities appear to have experienced a generalised slowdown across several dimensions, although they remain quite prosperous compared with most other parts of Europe.

7. Conclusions

The paper is a preliminary attempt to assess whether there is any evidence of resurgence among large cities in Western Europe. This is defined as a significant, sustained improvement in comparison with their past trajectories (either a turnaround from decline to revival, or accelerated growth). It could also mean an improvement in relation to smaller urban and rural areas. Different forms of economic revival may be involved: knowledge-intensive, consumer-based or more diversified. Data on six economic variables were examined for 151 cities over a 25-year period between 1980 and 2005.

One of the main findings is that cities in aggregate have experienced continued prosperity rather than turnaround or accelerated growth. Another is that the position of cities overall does not seem to have changed greatly relative to other areas. Looking in more detail, however, there is more evidence of resurgence, as well as the opposite. National variations seem important and cities in some countries show clear signs of revival and growth. Cities in Finland, Sweden, Ireland, Britain and Spain show substantial economic improvement over the last decade, with evidence of both turnaround and accelerated growth. There is also some variation between high income and high employment forms of growth. In contrast, cities in Germany have experienced a marked slowdown, albeit from a position of comparative prosperity at the outset.

We have not sought to explain these findings, nor to examine the interactions between different economic and demographic variables in any detail. Further work is required using more sophisticated multivariate techniques to investigate these dynamics and the underlying drivers of change. More robust cluster analysis would also help to describe the variations between cities more systematically. From our preliminary assessment, capital cities do not appear to be particularly represented among the most improved places. Judging by simple correlations undertaken in preparing the paper, city size does not seem to be very important either. There is some evidence that economic structure matters, in that cities with a large share of manufacturing employment in 1980 experienced slower overall jobs growth subsequently, but preliminary work suggests that the relationship is not strong statistically and needs further investigation.

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Appendix 1. Definition of indicators

The paper applies standard definitions of output, productivity, per capita income, retail spending, employment and population. Output is defined as the total value of goods and services produced. The statistical measure of total and final economic output used is gross value added (GVA) valued at constant base-period prices (2000 prices in Euro). A labour-based measure of productivity is used – GVA per worker in a given year. The most comprehensive measures of income per head of population are usually based upon gross national income, personal income or personal disposable income. Since there are no reliable, comparable Europe-wide measures of this at the city scale, the definition used here is average income per capita measured as gross domestic product (GDP) per resident in constant prices (2000 Euro). Retail spending is the total level of such expenditure in constant prices (2000 Euro), usually expressed per capita. Employment covers full- and part-time employment and all types of status (i.e. employees, employers and self-employed). Population is defined as the residents of a given area on 1 January of the year in question.

Nomenclature Unites Territoriales (NUTS) regions are defined by Eurostat at different levels of aggregation. NUTS are the closest approximation to a city or metropolitan area, unless it is particularly large, in which case several units are combined. One of the problems associated with using NUTS3 regions for some of these measures of economic performance (especially per capita income) is the distorting effect of commuting across boundaries. City-regions with net in-commuting may have higher income per capita simply because some of the workers who produce the income are not counted in the denominator. This is less of a problem when analysing regional trajectories over fairly short time periods than for comparative analysis of different NUTS3 regions.

Table A1. Rates of year-on-year change in UK cities (%), 1980–2005.

	1980–1984	1985–1990	1991–1994	1995–2000	2001–2005	1980–2005
<i>Absolute change</i>						
Output	2.4	3.4	1.8	3.2	3.1	2.9
Employment	–1.5	1.5	–1.4	1.3	1.1	0.4
Productivity	4.0	1.9	3.3	2.0	2.0	2.5
Average income	1.7	2.6	1.1	2.9	2.1	2.2
Population	0.0	0.1	0.2	0.0	0.3	0.1
<i>Relative change</i>						
Output	0.5	0.2	0.3	–0.1	0.3	0.2
Employment	–0.2	–0.1	0.2	–0.4	0.2	–0.1
Productivity	0.8	0.3	0.2	0.4	0.1	0.3
Average income	0.2	–0.1	0.0	0.1	0.3	0.1
Population	–0.1	–0.1	–0.1	–0.3	–0.1	–0.1

Table A2. Rates of year-on-year change in Spanish cities (%), 1980–2005.

	1980–1984	1985–1990	1991–1994	1995–2000	2001–2005	1980–2005
<i>Absolute change</i>						
Output	1.1	4.1	0.6	3.2	3.4	2.7
Employment	–1.5	3.0	–1.0	3.1	2.9	1.6
Productivity	2.8	1.1	1.6	0.3	0.5	1.1
Average income	1.2	3.6	0.7	3.2	2.0	2.4
Population	0.4	0.4	0.3	0.5	1.3	0.6
<i>Relative change</i>						
Output	0.1	–0.4	0.0	–0.1	0.1	0.0
Employment	0.1	0.1	0.1	–0.3	0.0	0.0
Productivity	0.1	–0.4	–0.1	0.3	0.1	0.0
Average income	0.2	–0.5	–0.2	–0.1	0.3	–0.1
Population	–0.1	0.1	0.1	0.0	–0.2	0.0

Table A3. Rates of year-on-year change in German cities (%), 1980–2005.

	1980–1984	1985–1990	1991–1994	1995–2000	2001–2005	1980–2005
<i>Absolute change</i>						
Output	0.9	3.3	0.7	1.7	0.6	1.6
Employment	–0.7	1.2	0.0	0.9	0.1	0.4
Productivity	1.7	2.1	0.7	0.9	0.5	1.2
Average income	0.8	3.0	–0.2	1.8	0.4	1.3
Population	–0.2	0.3	0.8	0.1	0.2	0.2
<i>Relative change</i>						
Output	–0.1	0.0	–1.4	–0.3	–0.3	–0.4
Employment	–0.1	–0.2	0.3	0.1	0.0	0.0
Productivity	0.0	0.1	–1.7	–0.4	–0.3	–0.4
Average income	–0.2	–0.2	–1.7	0.0	–0.2	–0.4
Population	–0.1	–0.2	0.1	–0.1	0.2	0.0

Table A4. Cities with the greatest slowdown in employment, 1985–2005.

	Change in employment, 1985–1994 average % p.a.)	Change in employment, 1995–2005 (average % p.a.)	Difference between columns 2 and 3 (%)	Rank in 1985–1994	Rank in 1995–2005
Bournemouth(UK)	1.3	–1.6	–2.9	26	151
Aberdeen (UK)	2.1	–0.2	–2.3	12	149
Thessalonki (GR)	3.2	1.0	–2.2	1	80
Lübeck (DE)	1.0	0.0	–1.0	43	146
Brunswick (DE)	0.9	0.1	–0.8	46	144
Nuremberg (DE)	1.0	0.2	–0.8	37	136
Münster (DE)	1.7	1.0	–0.7	17	81
Kassel (DE)	0.9	0.2	–0.7	50	141
Bremen (DE)	0.4	–0.2	–0.6	81	148
Amsterdam (NL)	2.5	2.0	–0.5	3	28
Hamburg (DE)	1.0	0.5	–0.5	44	125
Valladolid (ES)	2.7	2.2	–0.5	2	20
Porto (PT)	0.8	0.4	–0.4	55	133
Ulm (DE)	0.8	0.4	–0.4	56	132
Salzburg (AT)	1.0	0.6	–0.4	45	120
Frankfurt (DE)	1.1	0.7	–0.4	40	114
Hull (UK)	1.1	0.7	–0.4	38	110
Kiel (DE)	0.5	0.1	–0.4	74	142
Munich (DE)	1.1	0.8	–0.3	33	90
Utrecht (NL)	2.4	2.1	–0.3	6	24
Leicester (UK)	1.0	0.7	–0.3	42	100
Bonn (DE)	1.7	1.4	–0.3	19	49
Karlsruhe (DE)	0.8	0.6	–0.2	57	112
Leiden (NL)	2.4	2.3	–0.1	5	19
Aachen (DE)	1.3	1.2	–0.1	24	67

Table A5. Cities with the greatest slowdown in average incomes (2000 Euro), 1985–2005.

	Change in income, 1985–1994 (average % p.a.)	Change in income, 1995–2005 (average % p.a.)	Difference between columns 2 and 3 (%)	Rank in 1985–1994	Rank in 1995–2005	Average incomes in 2005
Porto (PT)	2.9	0.9	–2.0	20	137	12,035
Frankfurt (DE)	3.2	1.2	–2.0	11	121	38,328
Münster (DE)	3.0	1.1	–1.9	17	128	37,502
Aberdeen (UK)	3.9	2.1	–1.8	3	61	38,112
Strasbourg (FR)	2.5	0.7	–1.8	36	144	24,616
Bonn (DE)	2.4	0.7	–1.7	42	147	24,754
Charleroi (BE)	2.4	0.8	–1.6	38	142	19,086
Augsburg (DE)	2.7	1.2	–1.5	28	125	31,934
Tilburg (NL)	3.5	2.0	–1.5	7	66	22,849
Karlsruhe (DE)	2.5	1.1	–1.4	35	133	33,315
Kiel (DE)	2.2	0.8	–1.4	49	140	24,413
Brunswick (DE)	2.2	0.9	–1.3	50	139	29,795
Lens-Béthune (FR)	2.7	1.4	–1.3	24	106	16,893
Verona (IT)	2.3	1.1	–1.2	46	132	23,955
Hamburg (DE)	2.2	1.0	–1.2	58	136	34,513
Utrecht (NL)	3.5	2.3	–1.2	8	54	33,276
Barcelona (ES)	3.7	2.6	–1.1	4	42	20,140
Padua (IT)	2.9	1.8	–1.1	21	86	24,467
Lübeck (DE)	1.7	0.7	–1.0	89	146	23,108
Venice (IT)	2.3	1.3	–1.0	45	118	23,939
Wiesbaden (DE)	2.4	1.4	–1.0	39	103	43,138
Madrid (ES)	3.6	2.6	–1.0	6	38	22,260
Florence (IT)	3.0	2.1	–0.9	16	60	28,413
Milan (IT)	2.1	1.2	–0.9	59	119	32,208
Toulon (FR)	1.2	0.4	–0.8	117	149	18,501

Table A6. Cities with the greatest slowdown in retail spending (2000 Euro), 1985–2005

	Change in retail spending, 1985–1994 (average % p.a.)	Change in retail spending, 1995–2005 (average % p.a.)	Difference between columns 2 and 3 (%)	Rank in 1985–1994	Rank in 1995–2005	Retail spending per capita in 2005
Aberdeen (UK)	5.5	3.1	–2.4	5	50	8,945
Bielefeld (DE)	1.7	–0.7	–2.4	40	141	3,948
Frankfurt (DE)	1.9	–0.4	–2.3	31	130	4,278
Kassel (DE)	1.3	–0.8	–2.1	52	144	3,993
Hanover (DE)	1.0	–0.9	–1.9	82	147	3,736
Münster (DE)	1.4	–0.4	–1.8	48	135	4,390
Lübeck (DE)	0.8	–1.0	–1.8	90	148	3,832
Kiel (DE)	1.2	–0.6	–1.8	63	136	4,062
Wiesbaden (DE)	1.1	–0.6	–1.7	74	138	4,234
Mönchengladbach (DE)	0.8	–0.9	–1.7	91	145	3,793
Ulm (DE)	0.9	–0.8	–1.7	88	142	3,947
Cologne (DE)	1.0	–0.6	–1.6	79	137	3,778
Wuppertal (DE)	0.1	–1.3	–1.4	114	151	3,616
Brunswick (DE)	0.2	–1.2	–1.4	109	150	3,746
Krefeld (DE)	1.1	–0.3	–1.4	73	128	3,788
Bremen (DE)	1.1	–0.3	–1.4	76	129	3,974
Hamburg (DE)	1.1	–0.2	–1.3	70	127	3,883
Augsburg (DE)	0.7	–0.6	–1.3	95	139	3,956
Cardiff (UK)	6.1	4.9	–1.2	4	16	4,871
Belfast (UK)	6.4	5.3	–1.1	3	9	13,692
Bonn (DE)	1.3	0.3	–1.1	52	123	3,752
Aachen (DE)	0.9	–0.1	–1.0	85	126	3,857
Ruhr Conurbation (DE)	0.2	–0.8	–1.0	111	143	3,550
Nuremberg (DE)	0.1	–0.9	–1.0	115	146	3,935
Düsseldorf (DE)	0.9	–0.1	–1.0	85	125	4,133