

**CITIES & ECONOMIC
CHANGE**

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The Resilient City: On the Determinants of Successful Urban Economies

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‘...long run urban success does not mean perpetual growth. Long run urban success means successfully responding to challenges.’

Edward L. Glaeser (2005b: 121)

‘There are no absolute rules in this game; chance happens to great cities too.’

Sir Peter Hall (2000: 649)

INTRODUCTION

In this chapter, we propose a critical look at the determinants of successful urban economies; that is, cities that consistently generate high levels of income and employment. The focus is on factors that allow cities to successfully overcome outside shocks. Cities are continually subject to shocks, be they technological, political or other. Change is in the very nature of modern society, not to mention growing environmental risks. Some cities have been more successful in responding to outside challenges than others. Successful cities are necessarily ‘resilient’ cities; were they not, outside shocks would have permanently arrested (or diminished) their ability to generate wealth, hence the title of this chapter.

A growing literature has sprung up around the concept of resilience as applied to cities and regions¹. And, as with all concepts of this nature no consensus exists on a

¹ The *Cambridge Journal of Regions, Economy and Society* recently devoted an entire issue to the subject (Cambridge, 2010).

precise definition. As Christopherson et al. (2010: 2) readily admit, it can mean different things to different people. The origins of the term lie in environmental studies, describing the biological capacity of organisms to adapt and thrive under changing (often adverse) conditions, which in part explains the penchant of some authors for an evolutionary perspective (Simmie and Martin, 2010). We shall argue that for cities 'resilience' comes in at least two shapes. Resilience can refer to the ability to *survive* shocks (which we call **a-Resilience**) or, alternatively, the ability to *change* in the face of outside shocks, which we shall call **b-Resilience**. The first, we argue, is an almost universal trait of cities, while the second is less common.

Cities are amazingly resilient. No example exists in modern times of a large city that has actually succumbed – disappeared – due to an outside shock, although some have ceased to grow or have declined. In this chapter, by 'city' is meant an urban or metropolitan area; that is, an urban agglomeration which functions as an integrated economy and labour market. A particular municipality, township or borough may disappear, administratively speaking, but it is highly unlikely that the urban area to which it belongs will cease to exist. The 'City of London' (which covers a minuscule area) might conceivably be abolished, but London – the agglomeration – will in all likelihood continue to be Britain's economic powerhouse. London has survived numerous shocks in modern times – the Great Depression, the Blitz, the loss of empire, several financial meltdowns – yet has never been wealthier or more dominant within Britain (within Europe, some might even say); raising the question not only of its continuing success, but also of the sources of such dogged resilience.

Yet resilience is by no means a given, nor is it an attribute easy to acquire. We shall argue that the determinants of resilience are most often rooted in a city's history, geography, and other inherited traits, and as such not easily amenable to local policy intervention. Outside shocks that undermine the city's ability to provide a competitive environment can cause it to permanently diverge from its previously established growth path. Although examples are few in recent times among large cities, they are not non-existent (Polèse and Denis-Jacob, 2010). The difference, we shall see, between shocks that cause temporary and permanent damage is essential. Although inherited traits (industrial structure, location, size, institutions...) will strongly influence how a city responds, they rarely constitute the sole explanation. In the vocabulary of economic geographers, the forces driving path dependency are strong, but no path is ever irretrievably 'locked-in' to use the term coined by Martin (2010). Indeed, in some cases, successful adaption may mean deviating from historically established paths of growth.

A-RESILIENCE: WHY CITIES DON'T DIE

In October 2005, in the wake of Hurricane Katrina which devastated the City of New Orleans, a panel of experts came together to consider the question: 'Is New Orleans a Resilient City?' (Lang and Danielson, 2006). Most of the panellists had collaborated on an earlier book on the subject of resilient cities (Vale and

Campanula, 2005). One of the editors of that book commented on the fact that almost no large city in the last two hundred years failed to rebuild no matter how dramatic the destruction. More to the point, the panel failed to come to an agreement on whether or not New Orleans was a resilient city (Lang and Danielson, 2006: 246). This should come as no surprise. New Orleans did rebuild, and thus meets the definition of what I have called **a-Resilience**. It survived. However, visibly, New Orleans did not break out of its long-term decline: once the American South's largest city, it is now overshadowed by Atlanta, Houston and Dallas. Thus, New Orleans does not meet the criteria of **b-Resilience**. The city did not, it would appear, turnaround and reinvent itself following Hurricane Katrina. The shock did not alter the underlying (social and economic) conditions that accounted for the city's slow growth.

Only rarely do 'temporary' shocks of this nature alter existing urban growth paths. It is difficult to imagine a more brutal shock than the atomic bomb. Davis and Weinstein (2002) show how both Hiroshima and Nagasaki resumed their historical growth paths after only a 20 year interval. Visibly, Hiroshima and Nagasaki meet the criteria for **a-Resilient cities**. In accounting for this remarkable resilience and path consistency, Davis and Weinstein (2002) come down squarely on the side of locational fundamentals and increasing returns explanations. Locational fundamentals (natural harbours; climate; soil fertility; water; etc.) are often put forward as an explanation of why urban hierarchies and city size distribution are so surprisingly stable over time (Krugman, 1996; Eaton and Eckstein, 1997; Gabaix and Ioannides, 2004). Such 'fundamentals' largely determine where major cities will first emerge, whose initial advantages are then further entrenched by the accumulated weight – increasing returns – of decades (centuries, even) of investments in physical and in human capital (Romer, 1986; Krugman, 1991). It is difficult to imagine an outside shock that would dislodge Paris, London or New York from their dominant positions within their respective nations. Their 'resilience' is, in sum, a product of geography and history, a fact on the ground that in turn affects the growth potential of other cities.

Germany presents an arguably even more dramatic example of brutal outside shocks: not only the sustained bombing of its major cities (1940–1945), but also loss of territory, and political and economic partition (1947–1990), which reoriented trade and cut off cities from their natural hinterlands. Despite all this, Brakman et al. (2004) note the overall stability of West Germany's city size distribution with, however, a shift down the hierarchy (the largest cities were explicitly targeted by Allied bombers); while Bosker et al. (2008) in turn show that the basic stability of Germany's city-size distribution does not necessarily mean that cities exhibit parallel growth paths, which is not surprising considering the disruptive effects of both the war and its divisive aftermath. More surprising, in a sense, is the fact that all German cities sprung back (although with differing growth paths) despite being reduced to rubble in many cases. What greater proof can one ask for of the built-in resilience of major cities, although resilience in this case often meant deviating from previously established growth paths.

A Hinterland Lost

Vienna presents a particularly dramatic example of a city forced to adjust to a major outside shock that permanently altered its fortunes. As the imperial capital of Austria-Hungary, the city grew rapidly in the years preceding World War I (Nitsch, 2003). Around 1919, the city's growth stopped abruptly, the direct result of the loss of some 85% (in population and in territory) of its traditional hinterland, following the dismantling of Austria-Hungary. The Iron Curtain (1947–1990) further shrunk trade and interaction with Vienna's former eastern hinterland. Central place theory predicts that cities adjust to the size of their hinterlands. Vienna is eminent proof of that principle; its population in 2010 is still below that of 1910, the last census before the first war. Yet, today Vienna is one of Europe's wealthiest cities, with a GDP per capita some 70% above the EU average, in the same league as Stockholm (Eurostat, 2009). If wealth is the criterion for economic success, Vienna is certainly a success story, but one which required that the city live through many difficult years of (relative) stagnation and accept its new role as a smaller, non-imperial, European city.

Vienna's story, however, begs the question of the determinants of its economic rebound. Is the source to be found *in* Vienna, in actions taken by city fathers and other local players, or in the (inherited) fact that Vienna is the capital and central place of the Austrian Republic, albeit (now) a small nation, but also one of Europe's wealthiest, now located in the heart of an enlarged European Union?

Staying within the central part of Europe most touched by the upheavals of the twentieth century, Wrocław – Poland's fourth largest city – presents an interesting case. Formerly called Breslau when it was part of Germany, its entire (ethnically German) population either fled or was evicted in 1945, to be replaced by ethnic Poles. By some accounts 70% of the city was destroyed during the war. Today, Wrocław is a prosperous city by Polish standards with a population above that of former Breslau. How should one view this case of resilience? Rebirth might perhaps be a more appropriate term. Explanations founded on accumulated human capital do not hold, since all pre-1945 human capital vanished. As such, the increasing returns argument, arguably one of the most powerful theories in urban economics, cannot be invoked. On human capital, the city started afresh. Where then should one look for the sources of the city's rebirth? The most obvious answer is political will: the decision by the new Polish state to rebuild and to resettle the city as a Polish city (which it once was, many centuries earlier), as much a symbolic as a political statement.

This brings us back to the intrinsic, inherited, value – economically and symbolically – of cities once they have emerged. Cities, certainly major cities, do not close down or go bankrupt like firms, once their economic prime is passed. Nor do they die out like species that were unable to adapt to changing conditions. The evolutionary biological analogy should not be carried too far. Venice may no longer be a great merchant city, but it has gone on to become something else. Visibly, some part of what we may call 'resilience' is built-in to cities. Locational fundamentals are a major factor, but so are the accumulated physical infrastructures – roads, canals, railways, etc. – which add value and the symbolic, historical, and emotional significance that cities acquire over time. As one of the participants of the

New Orleans panel noted, the Germans (or the Allies) could have chosen to decommission Berlin following its almost complete destruction in 1945, but they did not (Lang and Danielson, 2006: 249).

Capital Cities Lost

In the course of the last century, several cities lost their status as capital, a not insignificant shock. Examples (by date) are: Calcutta (1911); Fès (1912); Istanbul (1923); Rio de Janeiro (1960); Dar es Salaam (1974); Abidjan (1983); Lagos (1991).

The historical evidence suggests that the loss or gain of capital city status is of less economic consequence than sometimes believed. In the first two cases cited, the nation's new political capital, respectively New Delhi and Rabat, did not emerge as the nation's economic capital. In the other cases, save one (Rio), the loss of capital status did not diminish the city's economic dominance. True, in Calcutta, Fès, and Rio, the loss of capital city is 'a' factor in the decline of the city's relative economic weight, compared to others, but not the only factor (Polèse and Denis-Jacob, 2010).

Indeed, an argument can be made that being a capital constitutes an economic disadvantage, especially in market economies. The bureaucratic (and high cost) culture of capitals is not necessarily conducive to innovation and enterprise. Shanghai, Bombay, and São Paulo spring to mind as examples of emerging economic (but not political) capitals. In North America, the case against capitals is even more stronger. None of the three major metropolises (New York, Los Angeles, Chicago) is a capital of anything, not even a US state. Nor are the two high-tech hubs of the West Coast (San Francisco Bay, and Seattle). But then, Austin and Boston are.

B-RESILIENCE: TURNING AROUND IN THE FACE OF CHANGE

The cities mentioned above survived often traumatic shocks – proof of their intrinsic resilience. However, survival is not the same as change. Nor are all shocks the same. Some shocks – bombs, earthquakes, hurricanes, etc. – are essentially temporary in nature, no matter how devastating their impact. Such calamities do not, as a rule, alter the city's locational fundamentals or the city's economic base; that is, the industries in which the city specialized at the moment the shock occurred. Once the city is physically rebuilt, its social and economic structure will, in most cases, mirror that which existed prior to the shock. Thus, it is entirely normal that cities should resume their historical growth paths once the effects of the shock have worn off. However, this does not necessarily tell us anything about the city's resilience in the face of shocks that demand fundamental changes in the city's economic base and way of doing things.

To illustrate this point, let us return to Nagasaki, which 20 years after the event did, as noted, resume its growth path at its previously historical rate (Davis and Weinstein, 2002). But, like New Orleans, that historical rate mirrors a long-term decline, which in both cases began in the last half of the nineteenth century. Nagasaki has been

systemically slipping down the Japanese urban hierarchy from 6th place in 1900 to 24th place in the year 2000 (Polèse and Denis-Jacob, 2010). A major reason for that decline was an outside shock of an entirely different nature, less lethal than the atom bomb but with much more durable economic consequences. Up until the opening-up of Japan following the Meiji Restoration (1868), Nagasaki held a near-monopoly as port of contact with the outside world, a monopoly it subsequently lost. Visibly, that shock irremediably altered its growth path. One cannot say that Nagasaki was not (is not) resilient, for it continued to grow, albeit at a slower pace than other Japanese cities, and is today a prosperous place by any standard. But, it was not able to reverse the effects of that more fundamental shock on its long-term growth prospects.

A city's ability to overcome shocks like that of the opening-up of Japan (for Nagasaki) provides a much tougher test of resilience. The change brought by the shock is irreversible; it cannot be undone or rebuilt. Shocks of this nature are most often political or technological. An example of the former is the redrawing of national boundaries, which may open up or, alternatively, close off markets (hinterlands). Vienna is a case in point (see box headed 'A Hinterland Lost'). Free trade agreements, including those leading to the European Union (EU), are of a similar nature. Technological change can fundamentally alter the economic value of competing locations. In the US, the invention of air-conditioning together with improvements in medicine, sanitation, and nutrition 'suddenly' made southern cities attractive locations for industry and people, upsetting the former competitive balance between colder northern and warmer southern cities. Along the same lines, changes in preferences and demographics can alter the comparative attractiveness of competing places. In all advanced economies, not only in nations with a US-type Sunbelt/Snowbelt split, the attraction of sun, surf, and other natural amenities has become a primary driver of urban growth, challenging cities that are less blessed by nature (Rappaport and Sachs, 2003; Cheshire and Magrini, 2006; Rappaport, 2007, 2009; Davezies, 2008).

In the face of such fundamental changes, how should one evaluate 'resilience'? There is not much city fathers or the local business community can do about national boundaries or the weather. It is self-evident that factors of this nature will cause some cities to grow faster and, alternatively, cause others to grow less rapidly and generate less wealth. Slower growth in such cases should not necessarily be interpreted as a sign of a lack of resilience. One should *expect*, on average, cities with less inviting climates to grow more slowly than others. By the same token, asking post-1919 Vienna to grow at its pre-1914 pace would have been an unreasonable expectation. In modern parlance, one might say that Vienna was required to downsize, but not necessarily to change its vocation as essentially a service and administrative city. It did not, to my knowledge, shed its economic base to replace it with another.

A truer test of resilience is the ability of local economies to transform themselves in the face of technological shocks that undermine their economic base, in essence asking them to reinvent their economies. Current technology largely determines what constitutes a growth industry at any moment in time. High-tech is a fleeting reality. If an informed observer were asked in 1890 which were the most technologically advanced and innovative cities at the time, he (or she) would most probably

have mentioned Manchester in England and perhaps Pittsburgh in the US and Essen in the German Ruhr. Half a century later, Detroit would perhaps be the first place to spring to mind. The automobile industry was the principal driver of the US economy for a good part of the twentieth century. Today, nobody thinks of automobile manufacturing, and even less textiles and steel making, as high-tech industries. Not so long ago, clothing was New York's largest export industry; today it is finance and business services (Glaeser, 2005a). Why have some cities been continually more successful than others in replacing declining industries with growth industries?

Two Very Different Examples of **b**-Resilience

In search of answers, let us turn to Boston. Rappaport (2003) cites Boston as an example of a city which, like New York, overcame a period of decline. In both cases, municipal and metropolitan populations declined between 1970 and 1980, only to start growing again in the 1990s. The long-run vitality of Boston, Glaeser (2005b) suggests, rests on that city's success in continually reinventing itself in the face of technological change; first, in the nineteenth century faced with the arrival of steam powered ships, which undermined its maritime trading and fishing empire founded on sailing ships, and then in the twentieth century in the face of the collapse of its manufacturing base founded on immigrant (largely Irish) labour. Indeed, during a good part of the twentieth century, the Boston area was characterized by slow growth and a deindustrialization process reminiscent of today's Rustbelt cities, a far cry from the Boston of 2010 with its concentration of high-tech and other knowledge-intensive industries. Why did Boston not go the way of Detroit or Pittsburgh?

Let us begin with the distinction between 'extractive' economies, on the one hand, where cities arose to exploit a particular resource (be it cotton, coal or something else) and, on the other hand, settlements that arose because people *wanted* to live there with the goal (ideal) of building a community in tune with their beliefs and values. New England, unlike the Southern States (and unlike, later, the coal and iron-ore based economies of the Midwest) had no major cash crop or resource (Glaeser, 2005b). From the beginning, the Boston area economy was based on ingenuity and on commerce, not primarily on the exploitation of a nearby resource, fish notwithstanding. Managing a far-flung trading empire and fleets of sailing ships required diversified skills, which set the tone early-on. The early skill-based focus was further reinforced by the work ethic and egalitarian principles of the Calvinist settlers (a remarkably well-educated group who put a high premium on education for all). Harvard College was founded in 1636.

Boston's first turnaround in the mid-nineteenth century to become a successful manufacturing centre was, Glaeser (2005b) argues, in part the result of a technologically-led historical accident. Before the arrival of steam ships, the Liverpool-Boston run was the least expensive crossing, resulting in the massive arrival of Irish immigrants, fleeing the potato famine of the 1840s, in turn providing an abundant industrial labour pool, which combined with Yankee capital and ingenuity, allowed Boston to rapidly industrialize. Glaeser stresses the difference

with specialized manufacturing cities such as Detroit and Pittsburgh. Boston's success was not the result of one industry. Combined with inherited skills in maritime services and in ancillary sectors such as insurance, Boston developed a diversified economic base in which iron-bashing industries were only a minor element. As in other cities, that manufacturing base was destined to decline in the mid-twentieth century. When manufacturing employment did begin to fall, Boston began a period of relative decline. By 1980, Boston was no longer a particularly well-off city. Bostonians earned somewhat less than the residents of Atlanta (Glaeser, 2005b: 147). Twenty years later the Greater Boston Area registered the fourth highest per capita income among US metropolitan areas. Boston was able to *replace* its lost manufacturing base with high-paying, knowledge-rich, jobs in both high-tech manufacturing and services, a true example of **b-Resilience**.

Glaeser places special emphasis on Boston's initial existence as a city where people choose to settle for reasons other than purely economic; Bostonians 'responded to crisis by innovating, not by fleeing' (Glaeser, 2005b: 151). This begs the question of how cities succeed in preventing their residents from fleeing – or investing elsewhere – during periods when things are not doing well and when better opportunities are emerging elsewhere. Urban economies are, by definition, open economies. In the US context, a highly mobile society, Boston's success is all the more remarkable in that it is a northern city with a generally cold climate, although blessed with an attractive shoreline. Among US cities, once (good) weather is accounted for, a city's initial endowment in human capital (average educational and skill levels) is the most powerful predictor of long-term growth (Glaeser and Saiz, 2004). In the battle for human capital – holding and attracting it – Boston has done remarkably well. The Boston example illustrates that climate can be overcome; which is good news. On the other hand, the attributes that make Boston attractive are not easy to replicate. **b-Resilient** cities ('adhesive' might be a more appropriate word) are not created overnight. Boston's success rests on a legacy of education, skills, and values, whose roots go back decades, even centuries.

Let us now turn to a second example of change in the face of decline: my home city, Montreal. In this case, the shock to be overcome was political in origin, not technological. Until the mid-1960s, Montreal was Canada's largest city, its chief corporate and business centre. Then the trend-line broke: Montreal's growth slowed to be suddenly overtaken by Toronto (Polèse and Shearmur, 2004). Thirty years later, Toronto has emerged as the undisputed corporate, business, and financial centre of Canada, with a metropolitan population some 50% above that of Montreal. During much of the 1970s and 1980s the unemployment rate in Montreal was in the double digits, almost twice that of Toronto. The city was clearly in decline. Corporate headquarters fled to Toronto. However, starting in the latter half of the 1990s, various indicators turned positive, without necessarily indicating a complete turnaround: unemployment fell and employment grew, although still at a somewhat slower rate. More importantly, the city spawned an impressive array of home-grown companies in a variety of areas (aerospace; engineering; computer gaming; entertainment; etc.), some of which have gone on to become multinationals, the embryo of a new corporate headquarter economy.

What happened and what were the roots of the revival? Montreal's abrupt interruption of growth was the result of the rise of Quebecois nationalism in the 1960s with the accompanying (now waning) threat of Quebec's separation from Canada. That threat plus the introduction of measures to promote the French language triggered a flight of much of the old Anglo-Scots business elite together with their capital, networks, and head offices. The resurgence of French also made Montreal a less competitive place to do business for firms that wished to or needed to function in English. As a corporate service centre, Montreal in essence lost its traditional Canadian hinterland (beyond the province of Quebec) to Toronto. An analogy with Vienna is not unwarranted: in the first instance, the city saw its hinterland shrunk by an international boundary; in the second, by a language boundary. In both cases, the city was forced to downsize. Montreal is still a metropolis and a central place, but for a smaller space, essentially the province of Quebec with a population of some eight million.

The reversal, if it may be called that, occurred because Montreal remained a metropolis and a central place for a population that looks to it as its focal point. Much (fortunately not all) of the old Anglo-Scots business elite did flee, but the Francophone population did not. A young, newly educated, Francophone elite gradually stepped in to replace the former elite. For aspiring young Francophone Canadian entrepreneurs, entertainers or otherwise ambitious individuals, Montreal is the natural magnet, the equivalent of New York or Paris. A Francophone-controlled firm would no more think of moving its head office to Toronto than a German Hamburg-based firm would think of moving its head office to Paris. We thus come back to Glaeser's point of 'responded to crisis by innovating, not by fleeing'. In Montreal, as in Boston, the turnaround took time to come to fruition; but in both cases its roots lay in the past and in the particular culture (and loyalty, one might add) that the city had succeeded in developing over time.

Another similarity with Boston (and also New York and, possibly, London) is worthy of note: the city's merchant background. Montreal, like the other two, was initially a trading city and financial centre rather than primarily an industrial city. The industries that did emerge were, as in New York and in Boston, most often founded on cheap labour, immigrant labour in the former two cases, and rural French-Canadian in-migrants in the second. Until very recently, clothing was Montreal's chief source of manufacturing employment. Montreal, like its two sisters, had the good fortune of not having nearby coal and iron ore deposits. Why I say 'good fortune' will become clearer as we now consider the obstacles to b-Resilience.

BARRIERS TO RESILIENCE: WHY SOME CITIES FIND IT MORE DIFFICULT TO CHANGE

Resilience means constantly shedding declining industries and replacing them with new ones. The vast majority of cities do this surprisingly well, without it even being noticed. Indeed, were this not so, most cities would have gone under long ago. It is

in the very nature of cities to constantly transform their economic base. However, the ease with which a city is able to move from one industrial specialization to another is not the same for all. I shall argue that the city's industrial legacy – the industries that shaped its work and business culture – is the most common impediment to **b-Resilience**.

Some industrial legacies are more difficult to overcome than others. Both in Europe and in North America, cities that have found it difficult to renew their economic base often have similar histories. This is no accident. Almost all have a legacy of heavy industry, mining or other industries dominated by large plants and factories. The five US urban areas that exhibited the slowest growth during the latter half of the twentieth century (St. Louis, Pittsburgh, Buffalo, Detroit, and Cleveland) were all typical Northern Rustbelt cities (Rappaport, 2003), trapped in what McDonald (2008) calls a vicious circle of decline. Among the rare Southern cities that declined continuously is (aptly named) Birmingham, Alabama, whose economy, like its English twin, was built on steel. In England, continuously under-performing cities remain concentrated in the old industrial heartlands of the North: Liverpool, Manchester, Newcastle... (Simmie et al., 2006). In continental Europe, the stubbornly most problematic cities tell the same story: Lille in northern France; the coal-mining cities of Charleroi and Mons in Belgium; and the steel towns of Asturias in Spain.

The Intrusive Rentier Syndrome

Why do such cities find it so difficult to shed their past? One possible answer lies in what my colleagues and I have dubbed the Intrusive Rentier Syndrome (Polèse and Shearmur, 2006; Polèse, 2009), initially formulated to explain the lack of diversification of Canada's resource-dependant regional economies. The explanation is as much sociological as economic. Every industry or occupation – farming, fishing, mining, steel making, automobile assembly, computer programming, banking, etc. – produces its own culture, work ethic, pattern of industrial relations, and outlook. Some will be more conducive to change than others. Industrial cultures will have little effect on economic performance in cities where no single industry dominates the local landscape. But, where one industry is dominant, its culture will become the local norm with either a positive or a negative effect.

Why intrusive 'rentier'? The notion of economic 'rent' pertains to income earned for reasons other than greater personal effort or higher productivity. The most common sources of such rents are natural resources. In the late nineteenth and early twentieth centuries, given then-current technologies, the combined presence of coal and iron deposits created a potential economic rent. Who captures this rent? Owners and shareholders of course, otherwise why invest? Governments will take a share via taxes. But, so might workers, by way of higher wages; that is, if they can seize their share. Industries associated with this epoch (steel mills, mines, textile mills, shipyards...) were typically large. Size facilitates unionization. The cities concerned often became – and have often remained – among the most heavily unionized within their respective nations. The outcome is a local work culture in which perceptions are in large part moulded by the

practices (and past histories) of large firms and labour unions, producing a mindset that does not necessarily facilitate change. On a personal note, I remember being in England in the early 1970s during the miners strike and watching Arthur Scargill on television, leader of the National Union of Miners. His message was straightforward: my father worked in the mines and my grandfather before him, and my sons and grandsons should be able to do so – hardly a recipe for **b**-Resilience.

We have identified the ‘rentiers’: large plants and large unions. But, why are they ‘intrusive’? Firstly, they discourage young workers from looking elsewhere; specifically, from starting up their own business. It’s simply not part of the mindset: ‘business’ is for others. By the same token, they discourage new manufacturing firms, especially small firms, from locating there. The local workforce has expectations that, often, are beyond the means of small businesses and other start-ups. In many cases the legacy is also visual and social. The debris left behind by coal mines and abandoned brown-fields hardly make for attractive urban landscapes. The image problem is further compounded if the cities are located in the colder less attractive parts of the nation, as is often the case in the US, UK and France. The Midwest, the Midlands, and the Lorraine, respectively, do not conjure up positive images for most persons, their undoubted qualities notwithstanding.

The social impacts do not end there. Large plants will often have attracted immigrant and, in the US case, Afro-American labour, creating ethnically and racially divided cities. McDonald (2008) points to such divisions as a major ingredient in the vicious circle of decline in which many old US industrial cities are seemingly trapped. The City (municipality) of Detroit is over 80% Black (2000 census), while the suburbs are white in similar proportion, hardly a recipe for metropolitan harmony and inter-municipal cooperation. Racial tensions are also a common feature in many of the old industrial cities of France and England. At another level – more common in Europe – large plants will often have nurtured a culture of social militancy, legacy of the horrendous working conditions and labour disputes of earlier periods, culminating in a local political environment dominated by left-wing parties (socialist or communist), with little sympathy for big businesses, hardly a recipe for attracting outside investors.

Summing up, the mix of these assorted ingredients – social, climatic, industrial, visual, and political – has in all too many instances produced a particularly toxic cocktail, difficult to unscramble. Each city is of course a unique case. However, the fact that so many Rustbelt and other old manufacturing cities are *still* underperforming, half a century after coal and steel began their decline, suggests that the legacy left by their industrial past runs very deep. The changes called for may be more in the nature of a cultural than a technological revolution.

Troublesome Manchester and the Limits of Culture-focused Strategies

A particularly troublesome case, at least for an outsider looking in, is Manchester, England, the very symbol of the Industrial Revolution, the city where it all began.

Troublesome, because the history of Manchester stands fashionable theories (with Florida, 2002, certainly the most well-publicized proponent) extolling the healing virtues of the arts, culture, and a Bohemian lifestyle on their head. Manchester emerged as the largest industrial agglomeration in the world in the nineteenth century, as well as one of Europe's leading intellectual and corporate centres, a position it still held at the beginning of the twentieth century. In 1900, Manchester boasted more large manufacturing headquarters than any British city (Peck and Ward, 2002). Benjamin Disraeli is reputed to have said that 'Manchester is as great a human exploit as Athens.'² Such economic dominance was reflected in an extraordinary vibrant cultural life, much of it underpinned by migrant entrepreneurs, scientists, and professionals from continental Europe (Dicken, 2002). The Hallé Orchestra, founded by such a migrant in 1858, remains the oldest professional symphony orchestra in Britain. It was no coincidence that it was able to attract the then most famous conductor in the world, Hans Richter, to lead it in the 1890s. In short, late-nineteenth century Manchester was a highly successful economy, a cultural magnet, and clearly attractive to what Florida (2002) calls the creative class.

The picture at the outset of the twenty-first century is very different. From a driving global city then, writes Dicken (2002: 19), Manchester has become something of a second-class passenger, being led rather than leading. Almost all large manufacturing headquarters have since moved to London. Peck and Ward (2002) lament that most economic trend lines continue to track steadily in the wrong direction, adding that, compared to other UK cities, only Liverpool has fared worse in terms of overall labour-market performance. Simmie et al. (2006) paint a similar picture. Two symbolic events in recent times illustrate the decline of Manchester, first as a corporate centre then as a cultural centre. The Royal Exchange (founded by Manchester cotton traders) closed its doors in 1968. The *Manchester Guardian*, Britain's famed 'radical' newspaper, dropped the 'Manchester' from its title in 1959 and, adding insult to injury, moved its editorial offices to London in 1970³.

I do not have sufficient knowledge of Manchester to adequately analyse the roots of its decline. Nonetheless, I cannot help but speculate that Manchester is an example – perhaps, *the* leading historical example – of what I have called the Intrusive Rentier Syndrome. As late as 1959, half of the labour force was employed in manufacturing – jobs which then began to disappear. As Peck and Ward (2002: 12) note, many of those jobs were dirty, but they were better paid than those that (sometimes) followed, going

2 The quote is in fact that of a character in one of Disraeli's novels: *Coningsby, or The New Generation*: Book IV, Chapter 1, third paragraph, digitalized version, Harvard College Library (Publishers: Carey & Hart, Philadelphia, 1844). Available at: <http://www.gutenberg.org/etext/7412>.

3 In an attempt at regional outreach, the BBC moved its BBC North studios to Salford, part of Greater Manchester, in 2011. However, the move remains controversial, in part because of the high travel costs incurred (ferrying guests and staff between Salford and London). It is too early to judge whether the move will have a lasting impact on the Manchester economy.

on to observe: 'For the working-class men of the city, in particular, the factory and the football ground were the fundamental coordinates of an uncompromising lifestyle'. I can think of no better illustration of the difficult-to-erase impacts of industrial histories on local lifestyles, perceptions, and expectations.

But, what of the role human capital and, indirectly, cultural activities in shaping successful urban economies? Having a skilled and educated population is an indisputable asset. The problem lies in the mobile nature of that asset and in the difficulty of sorting out causes and consequences. Florida (2002) argues that certain urban lifestyles – cafés, the arts, cosmopolitanism, and so on – are attractive to highly educated young professionals. In this he may be right. From this follows the recipe that a rich cultural scene, by attracting the so-called creative class, will produce successful local economies. The question however is this: Are culturally-rich environments the *outcome* of cities that have grown and become wealthy or the source of that growth? I do not believe that a clear answer is possible. Atlanta, one of the fastest growing metropolitan areas in the US, does not owe its rapid growth to an initial above-average endowment of educated workers, world-class universities, museums, and cafés. Growth attracts talent. If Atlanta keeps on growing, we may reasonably predict that it will in time house a highly educated population and also spawn top-notch universities and cultural institutions, and perhaps even trendy neighbourhoods where the bohemian classes can hang out. But will these assets, in turn, ensure further growth? Perhaps, but then again perhaps not, since they were not necessary in the first place. Manchester's strength as a cultural magnet in the nineteenth century did not, we saw, ensure its future growth in the twentieth century.

The surest recipe for attracting talent, skills, and money is to be a growing city with plentiful job opportunities and high wages. This is not terribly helpful, for essentially circular. All one can do is repeat that an educated population is a positive asset. But, as Manchester's story attests, it is also an asset that can be lost. I do not know how many Mancunians have left for London, a reminder of the porous nature of urban economies. Perhaps the question that one should be asking is why so many (talented) Mancunians seemingly felt no compunction about leaving Manchester and why, by the same token, the young and ambitious of Detroit and Pittsburgh probably consider it entirely normal to move to San Francisco or to New York. We thus come back, full circle, to Glaeser's (2005b) 'responded to crisis by innovating, not by fleeing'. Visibly, neither Lancashire nor the industrial Midwest developed a sufficiently 'adhesive' identity to make its young and ambitious want to stay and fight rather than flee. In this respect, Montreal's good fortune was the language border, which initially caused its shrinkage, but also created a protective barrier holding its 'creative' class in. However, such cultural barriers within nations are the exception.

Creativity, Centrality and Chance

Why then do some cities succeed – weather and natural amenities aside – where others fail? My very imperfect answer is 'centrality'. The most successful 'b-Resilient' cities are often the *centre* of a regional empire – a hinterland – to which its inhabitants look as

their metropolis. Many such cities initially evolved as central places before the industrial era, often hubs for converging transport networks. Chicago, whose resurgence since the 1990s is documented by Rappaport (2003) and McDonald (2008), largely owes its success to its position as the metropolis of the Midwest, notwithstanding the fact that the region as a whole continues to lag. Chicago's centrality is in part the 'natural' outcome of its central location; but, reinforced over time by a net of transportation links of which it is the hub, first canals and rail, and air today. The story of Atlanta is similar, the transport hub and dominant corporate and financial centre of the American South (Odell and Weiman, 1998). It is no coincidence that Atlanta and Chicago house, respectively, the two busiest airports on the continent.

The problem however, in terms of devising useful policy recipes, is two-fold. Firstly, a region can have so many central places and, by definition, only one dominant centre. Those wonderfully creative people who flock to London, New York or Chicago come from other places. All cannot win in this game. Boston is unrivalled in New England. True, smaller central places can also emerge, but they will be necessarily limited in number. And, it is no accident that the North-eastern and Midwest US cities that sprung back in the 1990s (besides New York, Boston, and Chicago) were all either State capitals or regional service centres with little or no history of heavy industry (McDonald, 2008) – Columbus; Indianapolis; Kansas City; Minneapolis-St. Paul – an indication, yet again, of the negative after-effects of (dirty) manufacturing and the positive influence of service-based legacies. One might call this Christaller's revenge. As manufacturing recedes as a driver of (large) urban economies, so central place theory again comes into its own as the dominant organizing principle for economic activity. The resurgence in recent times of Edinburgh in Scotland, compared with the much less glorious performance of Glasgow, points in the same direction. Edinburgh also has the good fortune, like Montreal, of having an institutionally (though not linguistically) defined hinterland.

A second problem is that centrality is most often an inherited trait. Central places will, simply *because* they are central, have developed urban economies and lifestyles that are conducive today to high-order services and knowledge-rich industries. Add in the workings of increasing returns (especially, to human capital) and the process becomes circular and essentially irreversible. London is London because it *was* London. Fortunately, at least from a policy perspective, reality is not totally linear or 'locked-in', borrowing Martin's (2010) term. Chicago demonstrates that a legacy of heavy industry is not an insurmountable obstacle. Chicago was able to overcome its blue-collar heritage because of its parallel role as the corporate centre of the Midwest. But, then again, its position as the metropolis of the Midwest was an inherited trait. This sends us back to the 'troublesome' case of Manchester. Why did Manchester not evolve along the lines of Chicago to become – or rather to remain – the corporate and cultural capital of northern England? Manchester not only seemingly invalidates the culture-as-an-urban-economic-driver argument, but also strict path dependency and increasing returns interpretations. With a population of about 1.3 million in 1900, greater Manchester was the largest urban centre in northern England, the second city in Britain, three times the size of Leeds. A hundred years later Leeds was poised to overtake it on both counts, and has emerged as the banking and business service centre of the North, a historical reversal.

I have no satisfactory answer of why Leeds replaced Manchester. Nor do I really have a satisfactory explanation of why Atlanta replaced New Orleans as the centre of the American South. I began this essay in New Orleans, and shall end there. Its evolution provides an additional reminder of the difficulty of formulating universal, path-predictable, explanations of urban growth. New Orleans was about four times the size of Atlanta in 1900. Today, the proportions are reversed. New Orleans, like Manchester at the time, was a cultural magnet. What is arguably the South's greatest cultural export – jazz – was born in New Orleans. Few cities were as open and, at least outwardly, tolerant to socially divergent behaviour. Few would argue that New Orleans continues, despite Katrina, to house one of America's most attractive historical centres. But, something in its social dynamics caused its economy to stall. Most attempts at explanation point to the legacy left by slavery and the cotton trade, producing a stilted social structure and closed business elite (Odell and Weiman, 1998; Lang and Danielson, 2006; Polèse, 2009), another example of the weight of history, but also of chance, recalling Hall's (2000) quote, cited at the outset of this chapter. Sir Peter Hall's call for prudence is sobering; following as it does what is arguably the most exhaustive recent study of the roots of urban greatness. There is still much we do not understand. Hall's (2000: 649) quote was preceded by the following words: 'On reflection, I am far from sure I have a satisfactory answer', a useful reminder that the roots of urban success (or failure) rarely lend themselves to simple answers.

CONCLUSION

The recipe for successful urban economies is fairly easy to enunciate. A city will grow and prosper if it: a) is home to a highly skilled and educated population; b) is centrally located, at the heart of a rich market, and/or well positioned for trade with expanding markets; c) has a diversified economy with a significant proportion of high-order services, largely untainted by a legacy of Rustbelt-type industries; and d) boasts a climate and/or natural setting superior to most other cities in the nation. If a city is fortunate enough to score well on all four, its long-term growth is assured, its 'resilience' a foregone conclusion. Within Britain, Greater London would undoubtedly score well on all four, compared to other UK cities. It should thus come as no surprise that wages and income in London have remained systematically – and significantly – above that of other British cities.

In urban economics, all advantages are relative. It is difficult to argue that London has a marvellous climate, but it is marginally better (or at least no worse) than in other British cities. In any case, there is little a city – or anyone – can do about the weather. The trouble with the other three positive attributes is that they are most often inherited, and as such also difficult to alter through local policy. In addition, such positive traits tend, as a rule, to be closely related and correlated with size. A centrally-located regional service centre (b) will, almost by definition, be a large city with a higher proportion of information-rich business services (c) and a proportionately better-educated labour force (a). But, on what button does one push first to promote growth? In recent times, city economic development strategies have tended to emphasize (a), which is not necessarily a bad thing. Yet, if *all* cities

push on button (a) then those cities that are *relatively* most attractive to highly-educated workers will win out in the end. We have seen that asset (a) can be won and lost. Urban economies are porous by definition. The surest way to attract skilled and educated populations is to be a growing city with plentiful job opportunities and high wages; which is not terribly helpful.

National Context

The national context is all too often the main constraint on the ability of cities to respond to outside shocks. Buenos Aires and Port au Prince – cities the author knows well – are cases in point.

In the 1920s, Buenos Aires had a standard of living comparable to that of London and other great cities of the industrialized world. Today, its income per capita (adjusted for living costs) is barely a third that of London. The initial shock to the local economy was the Great Crash of 1929, which put an abrupt end to Argentina's wheat (and meat) export boom. Buenos Aires never fully recovered, beginning a long slide down in (relative) incomes. Much of the blame must go to successive national governments (democratically elected or not) with an almost unbroken record of economic mismanagement. But then, much of the nation's political elite stems from Buenos Aires.

Port au Prince was never a First World city. But, its elegant French colonial architecture, much now deteriorated or destroyed, is a reminder of past glories. Real incomes have steadily declined since the 1950s, making Port au Prince the poorest (1 million plus) city in the Americas. Decades of dysfunctional national governments not only undermined the local economy but also the city's ability to respond to the devastating 2010 earthquake, in which some 250,000 people perished. At the time of writing, some four years after the quake, little has been rebuilt. The people of Port au Prince are certainly resilient, remarkably so, but it is a resilience of survival.

I have argued that attribute (b) – centrality – is often a key factor in success and that, alternatively, a legacy of heavy industry (the inverse of c) is often the principal obstacle to success. Both the US and UK experiences suggest that the negative after-effects of a Rustbelt legacy are extremely difficult to overcome. Chicago is an exception: a rare example of a city that has succeeded in overcoming its blue-collar past, but precisely because of its strength on criterion (b), the corporate and cultural centre of the US Midwest. Manchester, on the other hand, has not been so fortunate. Here, the negative social after-effects of its (glorious) industrial past have, seemingly, overpowered the advantages of its former dominant position as the central place of the North, today overtaken by Leeds. Manchester's former position as a European cultural and intellectual magnet was not, apparently, sufficient to halt its decline. Centrality, in sum, is also an attribute that can be won and lost. In the end, policies that reinforce a city's role as a transport hub, distribution centre, and regional focal point may be as essential as those aimed at attracting human capital.

A closing caveat is in order. Most of the literature on urban economic development implicitly assumes, as we have done so far, the existence of a reasonably

well-functioning state that provides the essential preconditions for development: a stable macro-economic environment; the rule of law; a reasonably efficient and honest bureaucracy; basics infrastructures; etc... Unfortunately, this assumption does not hold in many parts of the world (see 'National Context' box above). In such cases, even basic a-Resiliency takes on a different meaning. New Orleans, the ineptitude of the initial Federal government response notwithstanding, could count on the institutional and financial resources of the nation to help it rebuild after Katrina. Not so Port au Prince. The terrible 2010 quake could not be prevented. But, much of the devastation and far too many deaths were a direct result of the absence of a functioning state and social order: unenforced (non-existent!) building codes; poorly planned and maintained infrastructures; deficient public health services; the list goes on. By the same token, the rebuilding process has been severely hampered, among other things, by the absence of clear property rights and functioning land management systems. In the end, successful urban economies, able to rebound and to create wealth for their citizens, are the reflection of policy choices over many decades at all levels of government. The most important policy levers are not necessarily local.