

## The Centrality of Urban Economies to the Study of Competitiveness

Peter K. Kresl

*Bucknell University, Lewisburg, PA, USA*

---

### Abstract

Urban competitiveness has become a primary focal point for the study of public policy during the past quarter century. As cities have become more exposed to challenges posed to their economic activity by other cities, hundreds or thousands of miles distant as well as the opportunities that are offered to them, it has become incumbent on city leaders, in public and private sector functions, to become more active and innovative. This paper examines this new and rapidly evolving global context, how it has influenced city competitiveness and what city leaders can do to ensure the economic future of their residents. It reviews both the meaning and the measurement of urban competitiveness structures in which city economies function and several major issues that arise from urban competitiveness.

*Keywords:* Regional economic activity, growth, environmental issues, regional development planning, regional development policy, globalization

*JEL Classification codes:* R11, R58, F6

<http://dx.doi.org/10.7835/jcc-berj-2013-0089>

---

We see the word *competitiveness* routinely in academic journals and certainly in every strategic planning document done for a geographic entity or a firm, but what does it mean? Is it just a buzz word used by planning consultants? Or does it have a more important and operational meaning? It cannot be synonymous with winning, since in many athletic or music events, several contestants may be considered to be *competitive*, but only one of them can win. This suggests two things that will be helpful. First, when we speak of the competitiveness of some entity, we refer to its capacity to achieve some objective. Policies designed to enhance the competitiveness of, say, a city focus on capacity building rather than on outcome. Second, we must be concerned with relative rather than absolute competitiveness. If, for example, a city has a new convention center, it may be absolutely more competitive, but if competing cities also have new convention centers, the city may not have increased its relative competitiveness at all.

The global economy has undergone enormous changes during the past quarter century. Academic journals and books are replete with discussions of forces that are transforming national economies, such as globalization, deindustrialization, trade liberalization, innovation, learning, foreign direct investment, fiscal crisis, and so forth.<sup>1</sup> These are all events that have brought economies throughout the world into closer contact with each other. All entities in the global economy can no longer focus on their immediate surroundings but must actively look to their ability to compete for contracts, employment, output, plant locations, the most productive factors of production, and the assets they have at hand and will need to ensure their long-term existence.

In this paper, between these introductory comments and the Final Words with which it concludes, there are six substantive sections. The first thing any author must do is to offer a review of the literature that speaks directly to the argument of the paper. Due to limitations of space, this review must be confined to only the most relevant of the vast wealth of materials. The second task is to examine various definitions of the meaning of competitiveness itself. The dictionary will offer one definition that is partial, but not adequate to the task at hand. From this, we move through several definitions, each of which will be presented as normative but will, in actuality, lead the reader instrumentally toward a specific notion of competitiveness. The third section of the paper will concentrate on the notion of competitiveness that is specifically urban in its application. We will begin this discussion by asserting that competitiveness has at least as much, if not more, applicability to the city or urban economy as it does to the firm or to the nation, two traditional fascinations of economists. We will also review some of the macroeconomic factors that have increased the importance of urban competitiveness in the contemporary economy. The fourth thing that will receive our attention is a set of five issues that are of special importance to competitiveness of urban economies. These include the very important issues of size, geography, the varying importance of individual determinants of urban competitiveness over time, path dependency, and the suitability of a one-strategy-fits-all-cities approach. The fifth section will examine various spatial structures such as clusters and networks that can be utilized to fashion strategies for competitiveness enhancement or to examine how this has taken place. The sixth and last of the substantive sections will be devoted to the important issue of how economists and geographers have measured the degree to which a city or urban economy is competitive relative to other comparable entities. The conclusion (Final Words) will suggest some ways urban practitioners and civic leaders might be able to utilize some of the preceding observations in the practice of their professional tasks.

## The Literature on Competitiveness

Some of the key texts on urban competitiveness will be noted in the following two sections of this paper, but the broader scope of the literature can be usefully discussed at the outset. While the study of competitiveness of cities is a recent phenomenon, the notion of competitiveness itself has a long history in economics. The study of competitiveness of a nation begins, of course, with Smith (1937) and his seminal work *An Inquiry into the Nature and Causes of the Wealth of Nations*, to be followed shortly by Ricardo's (1911) *Principles of Political Economy and Taxation*. These two writers focused on the nation and showed how through specialization and exchange (trade) an economy could maximize the income of its residents. The focus was on efficiency and, while not explicitly, competitiveness. The nation stayed at the center of attention with works such as List's (1848) *The National System of Political Economy*, although he offered infant industry protection as the path to economic success, at least during a stage of the nation's economic development. Smith and Ricardo have been obvious inspirations to city economic leaders, but much of the local boosterism and promotion has a hint of List in it.

It has always been thought by many that the competitiveness of the individual firm is at the heart of the success of the national economy. Microeconomic theory has had this as one of its principal components. Porter (1990) wrote that his approach to competitiveness "can and must be applied at two levels, the industry and the nation" (p. 175). Clearly there is no place for the city and urban economy here. Krugman (1994) was another adherent of the traditional focus of economists on the firm, in the belief that the firm was the basis of national comparative advantage.

Perhaps the first major economist to focus on the local economy was Marshall (1890) in his *Principles of Political Economy*, in which he developed the idea of the industrial district. This will be developed more fully below, but Marshall developed the structure of the shared labor market, external economies, economies of agglomeration, and the (tacit) transmission of knowledge into the basis for local economic success. In this local structure, the individual firm as well as the other firms in the district can all become more competitive through mutually beneficial interaction. This has little if any relation to the national economy; it is the interaction of firms with local assets, including effective government and governance that matters. The development that has captured many of the urban competitiveness practitioners is the notion of the cluster. This is a development of Marshall's industrial district that some would like to implant in every situation.

Another development in the literature on urban competitiveness that is worthy of comment is the development of the conceptualization of the central nature of the activity that is being observed and that is asserted to be the central characteristic of the competitive urban economy of the day. Florida (2002) began it with his

notion of the creative class. Others, such as Maskell and Törnquist (2001), have discussed the learning region, Törnquist (2011) refined this into the development of creativity, and Atkinson (2012) has stressed innovation. Most recently, Scott (2012) has promoted the idea of a cognitive-cultural economy and the latest step in the evolution of the capitalist economy. This world will be composed of “a cosmopolitan network of city-regions representing the main economic engines of the world capitalism” (p. xi). Most of these are conceptualizations of an economy that has evolved from blue-collar manual labor to the work of what Reich (1992) referred to as *symbolic analysts* (Chapter 14) – service sector skilled labor, dealing with concepts and nontangible output. Scott (2012) is the clearest about this being a world that is dominated by large cities, but he darkly sees these new world cities being dominated by gated communities, challenges to democracy, social segregation, pockets of urban squalor, and a persistent underbelly (see Chapter 8).

A final contribution that has had a powerful impact on competitiveness at the local level is the central place theory of Christaller (1966) and Lösch (1954). Here the attention was at the level of the urban region and demonstrated the existence and rationality of a hierarchy of urban economies. At each level of the hierarchy, the city would have a different role to play or contribution to make. Some would be national, or even global, decision-making centers, others would be regional administration centers, while others would be subordinate centers of production or distribution. Firms would function within this structure, and national economies would be composed of them – the more significant its urban centers, the more competitive would be the national economy in relation to others.

The themes developed by these contributors to the study of urban competitiveness will be the subject of the rest of this paper.

## What is Competitiveness?

At the outset, we noted that competitiveness should be thought of as capacity building rather than as winning and that it was relative rather than absolute competitiveness that was crucial. When we look to the term itself, we find a further divergence of views. For example, if there is an objective to be achieved by efforts to enhance competitiveness, what is it and how is it determined? Is competitiveness merely the sum of some thought-to-be-important variables, or does it have a meaning unto itself? Is it an empty term waiting for the next consultant to breathe life into it? Fortunately, the research that has been done on this topic during the past many years gives a variety of responses that give substance to the term.

Thompson (1996) defines competitiveness as “having a strong urge to win.” In the abstract, then, competitiveness is all about desire rather than about either outcome or even capacity. Presumably, the objective of the exercise is agreed upon by all participants, as are the rules that will govern the *game* being played. While this is useful in common discourse, it does little for those who study entities, such as firms or administrative units. One of the first works on competitiveness was that of Scott and Lodge (1985) who coedited a compilation of papers from a colloquium series at the Harvard Business School in 1983-1984. They focused on the nation and defined competitiveness as “a country’s ability to create, produce, distribute, and/or service products in international trade while earning rising returns on its resources” (p. 3). This attention to output and rising returns to participants has been accepted by, among others, the Office of the Deputy Prime Minister of the United Kingdom<sup>2</sup>, but others have stressed trade performance. For example, Jacquemin and Pench (1997) surveyed a large number of research European projects on competitiveness and concluded that while GDP growth per capita was usually used, and so were the trade balance, the export/import ratio, and flows of foreign direct investment. McFetridge (1995) examined many studies and concluded there are only two indicators of competitiveness: real per capita income or productivity growth, and/or trade performance. In the introduction to a volume that was part of a British research program, *Cities: Competitiveness and Cohesion*, Gordon and Buck (2005) situated competitiveness in a structure they referred to as the new conventional wisdom: competitiveness, cohesion, governance and sustainability. Turok (2004) asserted that competitiveness encompassed three determinants of growth and prosperity: trade, productivity, and the employment rate and wrote that there is a complex interrelationship among the three.

It is clear that the definitions of competitiveness are all in general agreement as to what an economy should seek to maximize – essentially a small set of economic performance variables. In effect they argue that one can observe any economy and evaluate its performance in accordance with a set of targets that have been externally chosen and that should be used by all economies, whether national, regional, or urban. What these definitions ignore is the possibility that the participants in the exercise may have idiosyncratic arguments in

their collective welfare function. For example, American and Japanese workers typically work over 1900 hours per year, Europeans average about 1650, and Norwegians only 1450. Clearly, maximization of personal income is given a different weight in each of the locations; that is to say, the communities differ in their work-leisure trade-off. Norwegians chose to go skiing and hiking, while Americans and Japanese chose to beaver away at the workplace. So, if Norwegians have lower per capita income than do Americans and Japanese, we really cannot say that they are less competitive than their harder working counterparts. Analogously, as we know from the current economic downturn, strong or weak international trade performance by a nation, a region, or a city is often the function of the robustness of the domestic economy and not the reverse. A strong economy, with its increased demand for goods and services, may actually result in reduced exports and increased imports, with the reverse true for one that is weak; here, even the direction of causation is at issue. This highlights the problem with externally imposed competitiveness indicators in general.

What is the alternative? It is to develop the indicators of a competitive economy locally, building from the residents on up to an indicator, or a set of indicators, of competitiveness that is relevant to the entity that is subject to the exercise. In unpublished discussion, the Global Urban Competitiveness Project has offered such a definition, with reference to urban economies:

*Urban competitiveness refers to the degree to which a city, or urban region, in comparison with other "competing" cities, is able to provide the jobs, income, cultural and recreational amenities, degree of social cohesion, governance and urban environment to which its current and targeted new residents aspire.*

If a city is declared to have achieved a high level of competitiveness, in accordance with this definition, one can be assured that the result will be gratifying to the residents of the city, rather than simply to outside consultants who may have little appreciation for the perhaps unique aspirations of the city.

Neither approach to defining competitiveness is wholly satisfying. The top-down approach of the outside expert gives results that, while not totally relevant to the individual city, do allow for comparison of the competitiveness of a large number of cities, while the bottom-up approach, more meaningful to the locals, does not allow for a comparison of the achievement of competitiveness among a large number of cities. Each has its advantage and disadvantage, but it is clear that the top-down approach would be of greater interest to researchers seeking to do comparative studies of many cities throughout a nation or the global economy. However, the individual city may find that letting its own residents determine the objectives of efforts to enhance competitiveness will be more satisfying and relevant.

As a final comment to this section, we should note that to be competitive means that one has the capability to achieve one's objective ahead of others. Competitiveness is a measure of this capability. The World Economic Forum publishes its *Global Competitiveness Yearbook* annually. This work is a benchmarking exercise that utilizes dozens of variables to produce a ranking of over 50 national economies from the most to the least competitive. It is designed to be an instrument for measuring competition. This raises two contentious issues: the first is the relevance of the focus on the national level of aggregation, and the second is the value of benchmarking as a methodology. We will need to examine the basic aspects of competitiveness before we can treat these two topics.

## **What about Urban Competitiveness?**

Until the last decade of the 20<sup>th</sup> century, there was little study, with regard to competitiveness, of anything other than the national economy, except, of course, for the traditional economics attention given to competition and the firm. Porter's (1990) analysis put the national economy at the center of the study of competitiveness, although Krugman (1994) continued to press the notion that the individual firm was the proper focal point of competitiveness analysis. The traditional approach to competitiveness at the level of the firm was centered on the actions that managers or entrepreneurs must take with regard to employment of factors of production, product development, site location, financing, marketing, distribution, and use of profits. However, as Porter noted, each of the four points on his famous *diamond* can be influenced by government, and given the difficulties that attach to national and subnational involvement, local governments have emerged as a principal participant in competitiveness enhancement, whether of the nation or the firm. Local government responsibility is clearest with regard to *factor conditions* and *related and supporting industries*, while *demand conditions* are largely the responsibility of the national government and *firm strategy, structure, and rivalry* are the provenance of the firm. This suggests that the competitiveness of Krugman's (1994) firm is also significantly

dependent upon actions taken by the local government with regard to education of the labor force, provision of local amenities, the quality of local cultural, recreational, and educational institutions, the efficacy of local government and governance, and local taxation and regulation. This reinforces the notion that the competitiveness of the nation is largely a function of the competitiveness of its major urban regional economies. Krugman scoffed at the notion that competitiveness could be applied to cities, his reasoning being that they did not go out of business if they failed. But Camagni (2002) responded that if they failed they would suffer decline and marginalization. In the United States of America, a major city, Detroit, Michigan, has just been forced by its failures to accept administration by the state government. This is not an isolated incident.

In its report *Reshaping Economic Geography*, the World Bank (2008) presented a powerful argument for the importance of agglomeration, the potency of market forces, and the importance of an array of small, medium, and large cities if the full capacity of the global economy is to be realized (see Chapter 4). Scale economies, whether internal or external to the firm, and specialization are vital to capturing the gains forecast by Smith (1937) with his *pin factory*. One of the contributions of the World Bank report is its analysis of the realization of returns to scale, or lack thereof, by individual industrial sectors. Throughout, the importance of cities in realization of these efficiencies is unavoidable.

One of the most important consequences of the forces, identified above, that have transformed the global economy, has been the emergence of the city or urban region as the increasingly important focal point for thinking about the global and the national economy. With technological change reducing the cost of transportation and of communication, places in the global economy have been brought ever closer to each other. With the “cost-distance” between economies being diminished, with information being ever more available, and with factors of production ever more mobile, economies, whether national, regional, or urban, interacted with each other as never before, and the issue of the competitiveness of spatial entities became increasingly important.

The United States of America during the 1980s provides an instructive case. The national economy was ranked among the most competitive in the world, but a closer look shows that this was almost entirely due to the competitiveness of the urban economies on the west coast, from Seattle to San Diego (with the exception of Portland) and in the south from Los Angeles to Atlanta and Miami (Kresl & Singh, 2012). The urban economies of the north-east and the Industrial Heartland, which had become the Rust Belt as a consequence of the oil price shocks of the 1970s and the deindustrialization and global restructuring this entailed, were clearly in decline. Thus, the strength of the U.S. economy was generated by the competitiveness of many of its urban economies in specific regions and was of little solace to residents of other regions; it was a distinctly regionally differentiated experience. This is true, of course, for the economies of most other nations: Strong urban economies result in a strong national economy.

This enhanced position of the city in discussion of competitiveness is partly due to the fiscal crisis of many, if not most, national governments that has rendered them incapable of doing much to enhance the competitiveness of their economies and partly to the fact that subnational governments (state, provincial, and regional) are torn between the demands of rural and urban areas, leaving cities to their own devices. As a consequence, recent years have seen an unprecedented activism on the part of local leaders who have come to understand that their local economies are jeopardized by the threats and challenges from the changes in the global economy but are also aware of many opportunities these forces bring. Hence, it is safe to say that today the city and the urban region are the primary foci for policy and analysis with regard to competitiveness.

In the early 1990s, researchers and policy makers began to give increased attention to cities and urban regions as the appropriate focal point for the study of competitiveness. One key event was the Cities and the New Global Economy conference held by the Organisation for Economic Co-operation and Development (1994) in Melbourne, Australia. Over 80 researchers presented papers on various aspects of competitiveness at the level of the city. This attention to urban competitiveness was paired with an increasing activism on the part of city mayors and other actors at the level of the city. However, a manifesto issued by the Eurocities (1989) declared that “now it is the turn of the cities” (p. 74), and this pushed cities into the conversation with the impetus coming from city leaders. New organizations at the local and subnational level were established, and existing entities, such as the National League of Cities in the United States of America and the Federation of Canadian Municipalities in Canada, directed their attention toward issues of international competitiveness and were less dominated in their work by traditional issues such as real estate, industrial development, and social issues. In Europe, new entities focusing on cities in cross-border regions and port cities were formed. By the 21<sup>st</sup> century, the issue of urban competitiveness had become well established, and for many purposes was of more interest and more importance than was the competitiveness of national economies.

One of the difficulties that arose is the distinction between a city or urban economy and a regional or subregional entity. This can be observed in many places, but especially in Europe, where governmental distinctions are so clearly observed. One such situation exists between the city of Munich and Ober Bayern, the subregion in which it exists. While conflict between the two has diminished in recent years, as late as the 1980s, there was a clear distinction between the policy interests of intensely urban Munich and those of its rural hinterland. Only when Munich extended its economic activity beyond the city into the more rural area of Ober Bayern was it possible to have a single economic strategy and model for the entire region. The same relationship exists in most European and North American situations where the urban center has its objectives but the regional government (state, provincial, or regional) has to devote much of its attention and resources to rural or agricultural activities. In most U.S. states and Canadian provinces, the principal city, say, Chicago, Philadelphia, Denver, Winnipeg, or Montreal, typically finds itself constrained by the politics of the rural part of the subnational entity in which it is situated. Hence, it is often the case that little can be accomplished at the state, regional, or provincial level in the way of policy for urban competitiveness.

### Issues of Importance in Urban Competitiveness

Several issues arise in the study of urban competitiveness, and they warrant a brief discussion before we proceed to the analysis. Specifically, we will examine the importance of city size and of spatial location, the constancy over time of the importance of individual determinants, path dependency, and the efficacy of a one-size-fits-all strategy for enhancement of competitiveness.

First is the importance of the size of the city. That is, are larger cities more competitive than smaller ones? Do economies of agglomeration dominate? Economies of agglomeration are very important, but they are partially offset by diseconomies of agglomeration, such as congestion, pollution, increased search time, and so forth (Rizov, Oskam, & Walsh, 2012). In the United States of America, the competitiveness ranking does not put the largest cities at the top (Kresl & Singh, 2012). There has been much discussion of megacities in recent years with the assertion being that they are the key elements in the global economy (Sassen, 1998). Earlier notions such as global cities and world cities were defined by their function as decision-making centers for financial and professional service firms that operated on a global basis (Sassen, 1991; Taylor, 2004), but megacities are just cities with populations of 10 million or more. In actuality, many megacities are quite dysfunctional and do not show well in objective analyses of urban competitiveness. Most of them suffer from inadequate public services, poverty and slums, social immobility, and the whole array of social pathologies that cities try to avoid or to ameliorate (Davis, 2006, Chapter 1).

Are smaller cities situated in the interstitial spaces between or among larger cities, subordinate in their function to the activities in the larger neighbors, as Scott (2012) has suggested?<sup>3</sup> Or do they have a dynamic of development specific to themselves? Can a small city with a good university, desirable amenities, a skilled labor force, good governance, and a set of dynamic firms be competitive in its own right? Is a large city little more than a competitive core of research and educational institutions, skilled labor, and amenities, nested in millions of residents of little competitive input such as auto body shops, hair dressers, and furniture stores? Clearly, Pittsburgh or Lyon can be as competitive or more so, than Mexico City or Beijing (Ni & Kresl, 2010, Chapter 1). Smaller cities have been found to have some distinct advantages over larger cities. For example, they provide a quality of life that is more favorable for raising a family, cheaper housing, and an environment that is more sustainable; they have less congestion and pollution and better and more accessible parks and recreation areas. McCranahan, Wojan, and Lambert (2011) have demonstrated that “rural places pursuing entrepreneurship as a development strategy need to consider the potential contribution of the outdoors as a means to attract the creative class and recharge knowledge” (p. 551). This strategy of *valorization of rural amenities* can be undertaken completely independently of any large city or urban region, contrary to Scott’s (2012) suggestion. Finally, it is often easier to develop effective government that is connected to individual residents and firms, as Glaeser and Gottlieb (2006) have found with smaller cities with lower population densities, while big city density “is associated with less – not more – social capital” (p. 1297).

A second issue is that of geography. Historically, the most important cities tended to be located at good ports and on major rivers. In most of Europe and in China, the issue is the differential advantage of being located on the coast or in the interior. Coastal locations have access to international shipping, historically internationally connected and important cities, and better infrastructure. Interior cities have lower cost labor and land. In the United States of America, in the 1980s, the South had an advantage with nonunion labor, lower

taxes, and higher federal transfers. In later periods, five or six regions of the country had different experiences, with the South losing its advantage. Energy costs had a major impact on traditional industrial regions. Today, Denver, Dallas-Fort Worth, and Atlanta are rated as competitive but are landlocked, as is Calgary in Canada. Therefore, access to a major waterway is no longer a necessary condition for competitiveness. In Mexico, many cities are situated on the Pacific Ocean or the Gulf of Mexico, but another geographical feature is proximity to the U.S. border. The Mexico-U.S. border was a factor in the earlier period, but passage of The North American Free Trade Agreement (NAFTA) reduced the advantage of the *colonias* and industrial sites in the border area and shifted much economic activity to more central cities and regions, such as automobile production in Puebla and Querétaro (Sobrinho, 2012).

A third issue is whether the importance of individual determinants has changed during recent years. In the United States of America, hard variables (such as geographic location and access to natural resources) have been shown to have given way to soft variables (such as health care, urban amenities, and educational and cultural institutions) as determinants of urban competitiveness (Kresl & Singh, 2012). This seems to be the case in the composition of output transitions from mass manufacturing to finance, professional services, research, and decision making, as well as for economies that are characterized by high technology, knowledge, and highly mobile factors of production.

The fourth issue is the extent to which a city's future is linked to or dominated by its past. This is referred to as path dependence. That is, is the future path an extension of that of the past decades, or should the city break with the past and chart a new course? Continuing with what has worked in the past is thought to be a risk-averse strategy, at least for the foreseeable future. However, in the contemporary world of rapid changes in technology and in the competitiveness of other cities, with new demands, different skills, and the introduction of new products, this strategy can, in certain situations, be seen as risk maximizing. Two cases worth considering in this regard are the cities of Pittsburgh and Chicago. The past strengths of both city economies were steel and heavy manufacturing and rail transportation, and for Chicago, also grain trading (Cronon, 1991; Sassen, 2010). By the 1970's, largely as a consequence of the oil price hikes of 1973 and 1979, both of these principal industries were failing, and the famed Industrial Heartland had become the Rust Belt. Pittsburgh broke with its past and created a future that is based to a large extent on the strengths of its two major universities: computer science, robotics, and information-communication technology at Carnegie-Mellon University, and medical technology, health care, and biotechnologies at the University of Pittsburgh. In Pittsburgh, steel production has virtually disappeared, and it is reduced to a vestigial presence in the name of its professional football team, the Steelers, but it is world-class in these two new activities.

Chicago was able to do a modified path dependent strategy by converting its basic steel production (rails, merchant bars, and sheet) into production of specialty steel products that are embedded in a protective complex of patents for sophisticated production technologies. Chicago's firms are now world leaders in this area of steel production. The city remains one of the major rail transportation hubs of the country, and its airport(s) has made it one of the principal centers for passenger air travel. So steel, manufacturing, and transportation are strengths of the contemporary economy, just as they were a century ago. Perhaps most interestingly, its grain-trading activity of the 19<sup>th</sup> century resulted in the development of sophisticated financial arrangements that would facilitate this trade – a futures market, commodities trading, and credit instruments, among others. Today, this past activity has been the basis for the current strength in the contemporary counterparts such as currency futures and derivatives.

Each city had strengths of the past that were no longer sufficient to support a modern economy. Pittsburgh broke with its past and charted a new course for its future, while Chicago was able to refashion its strengths of the past so as to use path dependency to its advantage.

Finally, it must be noted that there is a presumption among many specialists in urban strategic planning that the same plan can be applied to many cities, on the assumption that the contemporary context demands that all cities be able to compete as cities of high technology, biopharmaceutical or ITC activity, or some other activity of the day. This ignores the fact that not all cities have the capacity to be successful in these activities and that they may be better suited as cities of culture and recreation, of logistics, of specialized manufacturing, of specialized services, or of administration. Given the striking differences one finds among any set of cities, even those that ostensibly have the same role to play in the global network of cities, it should seem axiomatic that each city should be well advised to design its own strategic plan and to chart its own course. It is always disappointing when one sees virtually the same plan being suggested for two cities that are quite dissimilar in many important ways.

## Structures of Competitiveness

Producers of goods function in geographic space. Some observers believe firms do their work in an Ayn Randian space in which the individual at the head of the firm does it all by him or herself. In actuality, firms are linked with other firms in ways that enhance their efficiency, contribution to society, and profit. Economists and geographers have studied these spaces for over a century, with the most relevant early link being that to Marshall (1890) and his notion of the industrial district (pp. 222-231). Marshall presented the industrial district as a collection of firms, in the same or in supporting industries, in close proximity to each other. In this situation, he argued that the firms would have close interaction with each other, circulating ideas about new ways of producing and distributing their goods, new technologies, and innovations in management. They could generate economies of agglomeration, share tacit information, discuss joint projects, and so forth. It was also necessary for the district to maintain good contact with firms outside of the district so they could be aware of developments taking place elsewhere. Isolation from outside contact would lead to slow decline and ultimate collapse. Today, this outside contact has to extend to firms throughout the rest of the global economy.

Porter (1990) has been one of the earliest and foremost promoters of the value of clusters as structures that promote urban competitiveness (pp. 170-171). He has worked with other economists and geographers to study the importance of clusters. One such effort was done for the National Bureau of Economic Research with two colleagues (Delgado, Porter, & Stern, 2012). They found that strong clusters generate stronger income growth, employment, wages, patents, and number of firms. They also found that strong clusters stimulate the formation of other clusters. This accurately described the experience of Oresund University in the region of Copenhagen and southern Sweden.

Some economists, such as Malmberg (2002), have argued that clusters often become inward looking and others, such as Wolfe and Gertler (2001) have found that the much touted interaction and tacit transmission of knowledge is often lacking. This is often found in clusters dominated by several large multinational firms each with one or more subsidiaries clustered due to some asset such as labor with a particular skill. In industries in which knowledge is proprietary and guarded closely, the subsidiaries in the cluster have no interaction, and one of the crucial requirements of the Marshallian industrial district or *true* cluster is lacking. In either case, the cluster fails as a strategy for urban competitiveness enhancement.

Figure 1 is a representation of the Marshallian industrial district. In contemporary literature, this is referred to as the *cluster*, a concept that has come to dominate the thinking of many specialists in this area. In fact, one organization, The Competitiveness Institute, has gone so far as to declare that *competitiveness is clusters* (Inter-American Development Bank, 2012).

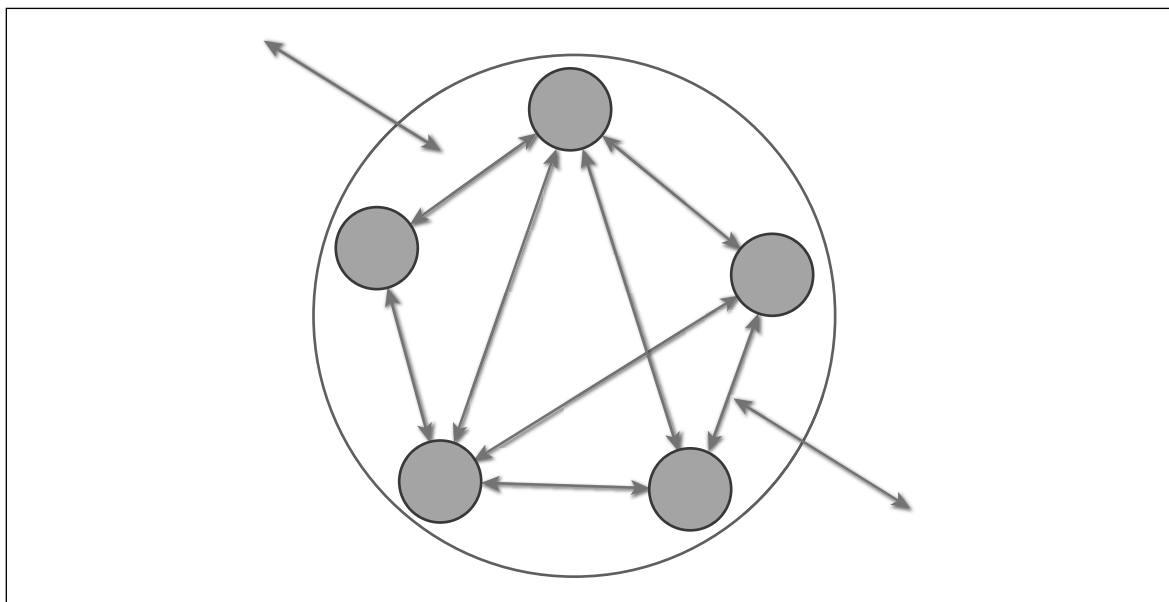


Figure 1. The industrial district of Alfred Marshall.

Clusters can fail to fulfill their promise in at least two different ways. The first is when the cluster becomes closed and has no contact with the rest of the world. This is represented in Figure 2.

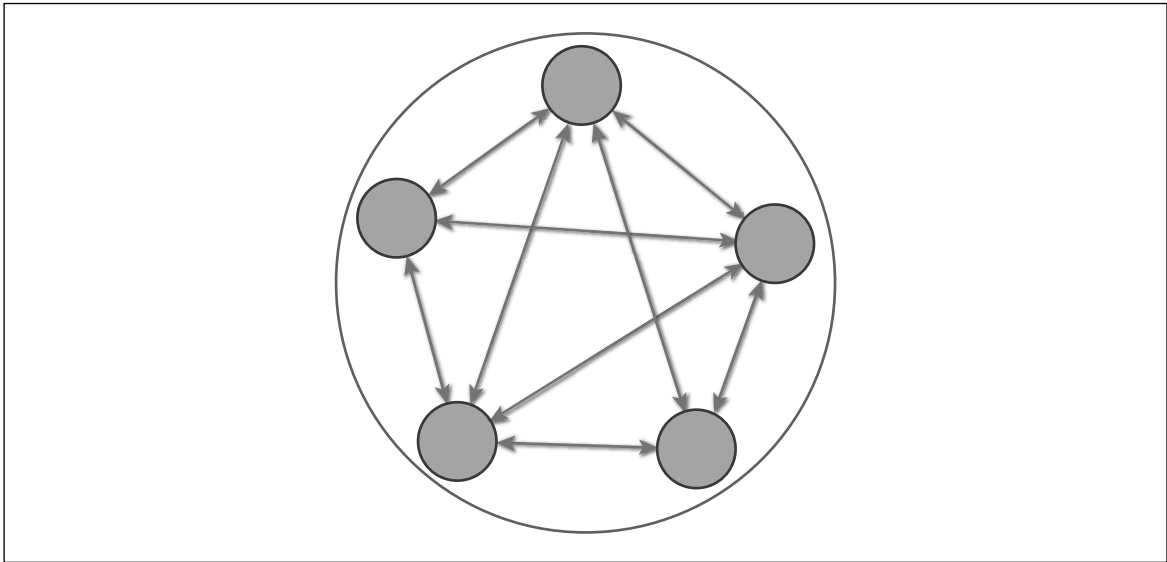


Figure 2. The isolated cluster.

Here, the firms in the cluster have close contact with one another, but being closed off to new ideas and ways of doing things, over time, the firms in the cluster become outmoded and incapable of keeping pace with the competition. They slip into a process of stagnation and decline. We do not have good examples of this because eventually isolated clusters disappear.

A second model of a cluster that fails to function as a Marshallian industrial district is a cluster that is dominated by large, multinational firms in which all of the interaction is between the parent and its subsidiary, with information and orders flowing from the parent to the subsidiary and with product, and perhaps some information, flowing in the other direction. What is lacking here is the rich flows in interaction among the smaller firms within the cluster. This structure is often found in biopharmaceutical firm clusters, dealing as they do largely with propriety information that they do not wish to share with competitors. The subsidiary firms are established for something that is beneficial to all of the participating parent firms, perhaps labor with certain skills or the presence of research universities, but certainly not for the contact they can have with other participants in the cluster.

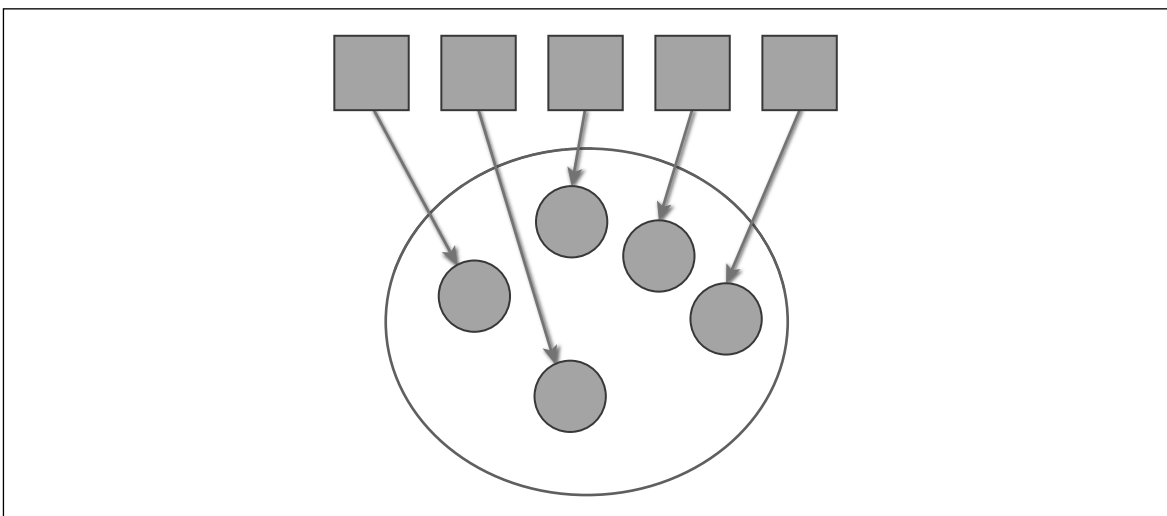


Figure 3. The multinational firm cluster.

A second structure is the *agglomeration*, simply the collocation in a single urban region of a large number of firms. This close proximity of many firms generates economies of agglomeration such as an internationally connected airport, a greater selection of urban amenities such as cultural and higher level educational institutions, and a greater collection of professional service providers and labor skills. Additionally, there may be positive externalities that are created by taking advantage of the success other firms, perhaps with political connections, have had in putting in place a favorable regulatory and zoning regime. Many cities with agglomerations of firms also have a higher population density, and this has been shown to have a positive effect on productivity (Ciccone & Hall, 1996).

However, there are also substantial negative externalities that are the result of agglomeration. Frequent news reports of the pollution of Beijing or the traffic congestion of Los Angeles or the income and social segregation of Rio de Janeiro attest to the negative side of agglomeration. While agglomeration is not a creation of city leaders, they can certainly undertake policy initiatives to reduce the negative aspects and to increase the positive aspects of agglomeration.

The third structure that is of importance to local leaders is that of the *network*. In some sense, the network is a cluster that is independent of proximity. It consists of a number of firms in the same or supporting industries that may be located in different countries or on different continents, but which nonetheless establish positive relationships of collaboration and of sharing of knowledge, new technologies, and opportunities – all the benefits of a properly functioning cluster. These *untraded interdependencies produce a regional (global) system of higher order capabilities that are distinct from the capabilities of individual firms* and can be the result of both soft and hard networks (Malecki, 2002). Soft networks consist of the cooperative relations among the members of the network; hard networks bring together *computing, telecommunications and information media into digital form* via the internet. Firms do not participate in a network simply because they find themselves in close proximity with other firms; rather they seek each other out. A network is then properly thought of as a club with information and other benefits shared only with members.

One benefit that adheres only to a network is the fact that this structure is of great potential benefit to firms, whether small or large, in cities that are on the periphery or in isolated locations. Firms in Africa or Latin America have great incentive to seek out firms on other continents or throughout their own continent for development of mutually beneficial actions and activities. While government is not good at creating networks, it can certainly encourage local firms to attempt to do this on their own and to give them what support it can.

While the structures just discussed can be thought of as spatially determined relationships, the final structure is a set of representations of urban economies that can be thought of as *functional structures*. That is, various cities in the United States of America, which has been the country in which these studies have been conducted, can be clustered in accordance with their function in the national economy. We will examine three of these structurings. Negrey and Zickel (1994) identified six types of metropolitan areas: classic deindustrializing centers, the isolated case of Boston, stable centers in transition, innovation centers, new services centers, and new manufacturing centers. They focused on changes in manufacturing employment and in population and then studied the relationship between the two. Their principle conclusion was that there is no single government policy that can benefit all cities in such diverse situations because each will have its own needs for policy.

In a second study, Pollard and Storper (1996) identified intellectual capital industries, innovation-based industries, and variety-based industries, each of which differs with regard to product differentiation, aspects of management, aspects of production, and technology, with metropolitan employment changes being the indicator of success or failure. One of the interesting conclusions they reached is that metropolitan employment may be rising or declining in a city that must be considered as being successful; at issue is whether activity is being restructured toward less labor-intensive, high technology production. Here, the loss of jobs in traditional labor-intensive manufacturing may exceed the job gains in a less labor-intensive new industry. Pollard and Storper concluded that while there is no single path to economic growth and competitiveness, “the most consistent pattern... is the link between specialization in innovation-based employment and overall regional employment growth” (p. 19). They also cautioned that the path to urban competitiveness may come about via a specialization that can be broad or narrow in its focus.

The third functional structure is that offered by Markusen (1996), who sought to determine “why certain places are able to sustain their attractiveness to both capital and labor” (p. 291). She identified three distinct industrial districts that are more relevant to the contemporary U.S. situation than the Marshallian version: hub-and-spoke districts, satellite industrial platforms, and state-anchored districts. These districts are characterized, respectively, by: (a) large vertically integrated firms, (b) large externally owned firms, and (c) large

government institutions. As with Pollard and Storper (1996), these districts are differentiated, but for Markusen, the important factors were economies of scale, effectiveness of local cooperation, locus of decision making, government regulation, and public support for infrastructure. From this, she argued that “sticky places” have multiple forces such as strategies, structures, priorities, and politics (p. 293) and concluded that each district would be distinctive and would require its individual economic strategy; no universal approach to strategic planning was likely to be successful.

Each of these structures emphasizes the fact that a single firm cannot reach its potential, or perhaps even survive, without the effective connections with other firms that give it access to the latest knowledge, market information, managerial advances, and cooperative ventures. Even the isolated subsidiary in the multinational cluster has linkages with its parent.

## How Can We Assess Competitiveness?

The final topic is to examine the various methodologies that have been used in the measurement and evaluation of urban competitiveness. Each is unique in the approach it takes to the ultimate objective of the exercise; each is distinctive in its use and evaluation of data; and each is useful for only certain specific purposes. That is to say, there is no one methodology that is, in a general sense, superior to the others. I have labeled the two leading methodologies *benchmarking* and *quantitative*; each will be examined in turn, and then their strengths and weaknesses will be made specific.

Benchmarking is arguably the most popular methodology for describing urban competitiveness. Initially done by the U.S. firm Rank Xerox in the 1980s, many firms, research institutes, and international organizations now do their own benchmarking studies. The *Global Competitiveness Report* of the World Economic Forum is probably the most well-known of several efforts to do this at the level of the nation, and it has been joined by other benchmarking studies at the level of the city, the most ambitious of which is the *Global Urban Competitiveness Report* (GUCR) that is done annually by Ni Pengfei of the Chinese Academy of Social Sciences (Ni & Kresl, 2010). The attractiveness of this methodology is that it is very simple in its construction. One simply gathers data for a large number of cities or for a set of cities that have some targeted characteristics for a single year or for changes over a period of several years. Once one has gathered the data, one can rank the cities according to their summed ranking in the variables, perhaps weighted for some desired effect. Additional analysis can then be done of the ranking and its components.

The various benchmarking studies differ in what they seek to ascertain. Some of the studies report on competitiveness of national economies. The *Global Competitiveness Report* uses dozens of variables grouped in 12 categories to evaluate the competitiveness of 140 national economies. The objective of this exercise is the identification and measurement of *the drivers of economic performance*; presumably this reveals a nation’s comparative competitiveness. The Swiss business school Institute for Management Development (IMD) issues annually its *World Competitiveness Yearbook* in which it ranks 59 countries using 329 variables organized in four categories, each with five subgroups, in an effort to evaluate the extent to which each country is able *to maintain an environment which sustains the competitiveness of firms* (IMD, 2013). The four categories are economic performance, government efficiency, business efficiency, and infrastructure. National competitiveness is determined by the competitiveness of firms, and it is not clear where urban competitiveness enters the picture. Competitiveness of A depends, with impressive circularity, upon competitiveness of B, with the reverse arguably being true as well, but competitiveness itself is not defined.

Other reports are based on data from cities rather than nations. The *Globalization and World Cities* (GaWC) *Index* evaluates cities on the basis of their capacity to serve as centers of advanced producer services (Globalization and World Cities Research Network, 2013). Cities are evaluated according to their performance in four areas: accountancy, advertising, banking/finance, and law. Similar benchmarking exercises done by PricewaterhouseCoopers Cities of Opportunity, the Japanese Global Power Index, and the recently-cancelled MasterCard Worldwide Centers of Commerce Index use similar methodologies and are all oriented to serving the business community.

Ni’s *Global Urban Competitiveness Report* is of interest because of its comprehensiveness and because the details of the methodology are so clearly elaborated. Ni uses 105 variables for 500 cities throughout the world. The variables are put into seven input categories and nine output categories. The former include items such as industrial structure, human resources, and global connectivity, while the latter include productivity,

growth, and innovation. The two give similar results but generate different insights into the competitiveness of the cities. The method of analyzing the data is rather sophisticated, in comparison with other benchmarking exercises. Ni uses nonlinear weighting, regression analysis, and fuzzy curve analysis to obtain his results.

It is interesting to see Ni's results for the Latin American cities in the top half of his ranking; this is presented in Table 1. Detailed reports are presented in the report for the top 150 cities, including Mexico City, Chihuahua, and Monterrey but are available for other cities from Ni.

Table 1  
*Latin American Cities in the Top 250 of the Ni Urban Competitiveness Ranking*

City	Country	Rank	City	Country	Rank
Mexico City	Mexico	74	Torreón	Mexico	198
Chihuahua	Mexico	106	Tampico	Mexico	200
Monterrey	Mexico	143	Sao Paulo	Brazil	201
Santiago	Chile	150	Santo Domingo	Dominican Republic	202
Veracruz	Mexico	158	Morelia	Mexico	207
Leon	Mexico	160	Aguascalientes	Mexico	211
Saltillo	Mexico	168	Merida	Mexico	220
Querétaro	Mexico	178	Puebla	Mexico	227
Guadalajara	Mexico	180	San Luis Potosi	Mexico	240
Toluca	Mexico	192	Montevideo	Uruguay	241
Ciudad Juárez	Mexico	195	Lima	Peru	245

Note. Ni and Kresl (2010).

The second methodology is the quantitative, and it is the methodology I and a colleague have used in our work on urban competitiveness (Kresl & Singh, 1995, 1999, 2012). In our studies, we began with three variables that we took to be indicators of urban competitiveness: manufacturing value added, retail sales, and a subset of professional services. The validity of these indicators was tested through discriminant analysis; this step minimized the role of subjective judgment in the exercise. The cities were then ranked according to the indicators, and a regression analysis revealed a dozen or more variables that could be considered to be determinants of urban competitiveness. The ranked cities could then be examined for their individual strengths and weaknesses in each of the determinants: transportation facilities, educational and cultural institutions, skills of the labor force, education of the population, health facilities, and so forth. This result, showing the strengths and weaknesses of the local economy in comparison with competing cities, should be of great value to city planners and leaders when charting a course for the future development of the city economy.

The Kresl-Singh studies have been conducted over a period of three decades, and it is, therefore, possible to gain insights into the ways in which regions and metropolitan areas in the United States of America have risen and fallen in competitiveness between 1977 and 2002. The South has risen and fallen with attractiveness of sun and warmth, the Mid-west has fallen (due to the oil price hikes) and then risen, the coastal economies have been affected by defense budget changes, and New York City dropped precipitously following the 1987 stock market collapse, for example. We have already noted earlier in this paper the revealed shift in importance of hard and soft determinants of urban competitiveness.

Sobrinho (2012) took a similar approach when he investigated the issue of industrial competitiveness, using 24 cities in Mexico for the study. Mexico is one of the few countries for which comparable data can be obtained for a large number of cities. Sobrinho used two sets of explanatory variables: six *static* – the capital-labor ratio, variables that relate to urbanization, economic structure, and infrastructure; and five *dynamic* – variables that relate to productivity, exports, science parks, and industrial concentration. In a second study, he included 39 cities and expanded the focus to include industrial, commercial, and service competitiveness. The second study was done for two years, 1988 and 1998, so he was able to capture the changes in urban competitiveness among Mexican cities over time. Sobrinho showed that there was significant movement, both absolute and among the cities, suggesting there is a role for aggressive and imaginative policy initiatives on the part of local leaders to affect the competitiveness of their city.

Two quantitative studies have been done on cities in China, another country for which good data are available for a large number of cities. Ni Pengfei did his Ph.D. dissertation on this subject (Ni, 2000). He ranked 24 cities in China using a variable that consisted of income growth, some measure of urban assets, and a variable he constructed – income generated per unit of cost. He explained the ranking with sets of *hard* and *soft* variables. The former refer to factors of production, infrastructure, and economic structure and the latter to culture, social structures, and city administration. He offered a set of 15 conclusions and a set of policy recommendations that will be familiar to specialists in this area: market institutions, investment in infrastructure, openness to the rest of the world, administrative reforms, and increased scientific research. This methodology was instrumental in his GUCR, discussed above.

The other study of the competitiveness of Chinese cities was that of So and Shen (2004) who used a set of 55 variables to assess the competitiveness of 55 cities. Their methodology was somewhat similar to that of Ni (2000), viewing competitiveness as being composed of economic, social, and environmental elements, and they used sets of variables to examine the competitiveness of the set of cities. Their conclusion was that the relative competitiveness of Chinese cities is due to investment, skilled labor, foreign direct investment, social stability, quality of life, and the quality and quantity of infrastructure and services, which confirms that Chinese cities are similar in fundamental ways to cities elsewhere.

The principal shortcoming of benchmarking is that there is no objective way to determine which of the hundreds of variables are statistically significant as indicators or determinants of urban competitiveness. One understands the temptation to use variables primarily because they are available. While one might like to have one ideal set of variables, they are simply not available for large numbers of cities in many different countries, each with its own definitions of variables and method of collecting the data. Furthermore, only a limited number of variables can be obtained for a large set of cities, and perhaps some of the most desired are unavailable. Therefore, one city may rank higher than another simply because it is more highly ranked in variables that, in actuality, have little or nothing to do with urban competitiveness. A second problem is that the researcher may believe that in the contemporary economy only certain variables give an indication of competitiveness. This is true when the current sentiment is that it is principally or exclusively the case that competitive urban economies are dominated by knowledge and learning regions, or Florida's (2002) creative class, or innovation, or some specific sector such as high-technology or Scott's (2012) cognitive-cultural economy. Privileging a set of variables that reflects a narrowly defined competitive urban economy may unduly limit or even distort the benchmarking exercise and its conclusions, excluding as it may, the wide array of city specializations that are found in the actual global economy. Summing this up, Boschma (2004) offered the caveat that benchmarking may be most "useful as a learning tool for policymakers when it makes them aware of the dangers of simply copying best practices developed elsewhere" (p. 1011).

The quantitative approach is hampered, in its own way, by the lack of availability of comparable data for large numbers of cities. This method can be used in a few national economies for which suitable data are collected and made public. It is the case that to gain statistically significant results, comparable and suitable data for at least a couple dozen of cities are required. This is possible for cities in the United States of America, China, Mexico, and Italy. The United States of America has good data for 287 metropolitan areas as well as for smaller cities and towns. However, in Germany, for example, the individual *laender* (subnational governments) are not in agreement as to definitions and methodologies. Even for the European Union, data at the level of cities or of urban regions are too limited for this sort of project to be carried out. When it is possible to use the quantitative methodology, the results are relatively objective with virtually no subjective values being introduced.

As a final comparison between the two methodologies, benchmarking exercises generate city performance on 40-50 performance and asset variables, whereas the quantitative methodology gives usually 12-15 variables. This can be an advantage or disadvantage, depending on the level of subjectivity or objectivity with which the researcher is comfortable.

## Final Words

I will not use this final section of the paper to reiterate things I have written above, hopefully with sufficient clarity for them to be comprehended at first reading. Rather I would like to suggest some of the ways in which the study of urban competitiveness can be used by city leaders and planners in countries throughout Latin America. Some of this will be an elaboration of points already made, but other comments will be

independent of those points. City leaders everywhere are cognizant of the value of stimulating formation of appropriate cluster structures. One issue is that of the industries that are most likely to become the bases of successful clusters. Research has shown that key to a cluster is the face-to-face contact and transmission of tacit information among participants. This interaction is most frequently found in industries such as fashion and design, furniture, information-communications technology, advertising, publication, cinema, and video games, among others. Power and Lundmark (2004) suggested this is because these industries are characterized by the greater labor mobility that enhances knowledge transfer. Industries dealing with proprietary information do not promote this kind of interchange. Most of these activities can be done on a relatively small scale and do not require substantial investment. The government can stimulate cluster growth, as is shown by the widely studied Research Triangle in North Carolina, in the United States of America, the early stimulus of the technology cluster west of Ottawa, Canada, and by the actions of the Swedish Development Agency for Innovation, but only as a partner of private sector actors. The fashion industry in New York was the result of combined efforts of a union, the strength of the local publications and advertising sectors, changes in technology of communication, and the Fashion Institute of Technology (Rantisi, 2004). So, government action, within the *triple helix* model, can be a helpful midwife to private sector activities to develop clusters.

Another concept that has been studied extensively in recent years is that of creativity and the so-called creative industries. A study of creative cities since the end of the 19<sup>th</sup> century suggests that four factors are crucial to developing a creative milieu<sup>4</sup>. First, there must be an inflow of people from outside the city or country. These immigrants bring energy and ambition but also new ideas and ways of doing things. Second, these new people challenge the existing order and ways of doing things and create conflict. Third, they then resolve that conflict by creating new spaces for themselves and their activity. Fourth, each has a patron who supports their activity with funds and attention; this could be the bourgeoisie and Impressionist painting in Montmartre in Paris before World War I or Whites supporting Black music and art in the Harlem Renaissance in New York after World War I. City leaders who seek to establish clusters of creative activity should keep in mind this migration of people, conflict, and need for support.

It is not overtly political to say that urban competitiveness is best, perhaps only, achieved when political processes are responsive to evolving needs of economic activity and when there is a condition of economic rationality. Competitiveness enhancement requires a stable environment of stable and supportive laws and regulations and of political institutions that ensure their security and evolution. Economic rationality requires that prices be rational and known to all and that resources be sufficiently mobile to flow from an outmoded use to another that is more productive for evolving economic activities. Closed systems dominated by corruption, political instability, and favoritism never outperform transparent and open systems. The gradual opening and market orientation of China is a case in point.

It is clear to all that an educated and skilled workforce is absolutely necessary for an economy that can be competitive in the long term. Education and skills ensure productivity and also the capacity to evolve over time, as circumstances require. In addition to educational institutions being put in place, it must also be remembered that skilled labor has portable skills, skills that can be used in other cities or even in other countries. Hence, it is necessary for city leaders to ensure that the soft factors, such as urban amenities, healthcare, recreation, and cultural opportunities are available and, of course, that there are good schools for the children of the skilled workers. Many cities work under the handicap of not taking advantage of the skills of and capabilities of one half of the working-age population – women. While the ratio of educational attainment of women is close to equality in the industrialized world, in the developing countries, it drops to about 70%; that is a lot of wasted talent.

The great challenge to city leaders in the coming decades is that of crafting a strategic economic plan that will maximally enhance the competitiveness of the local urban economy. The final task that falls to them is creation of an effective structure of governance and of private-public sector partnerships. The good news is that neither this nor encouragement of networks and clusters, nor developing a satisfying quality of life, nor studying the actual competitiveness of the city, nor promoting a more creative urban milieu are costly initiatives. Much can be accomplished by city leaders, whether the city is large or small, without costly infrastructure and industrial investments.

## Endnotes

- <sup>1</sup> For a recent discussion of this, see Scott (2012), especially Chapter 3.
- <sup>2</sup> Parkinson, Hutchins, Simmie, Clark, and Verdonk (2004).
- <sup>3</sup> See Chapter 9.
- <sup>4</sup> I have done unpublished work on four creative milieus: fin-de-siècle Vienna, pre-WWI Paris, Berlin and Harlem, New York, following WWI, and New York following WWII.

## References

- Atkinson, R. D. (2012). Innovation in cities and innovation by cities. In D. B. Audretsch & M. L. Walshok (Eds.), *Creating competitiveness* (pp. 26-53). Cheltenham, UK: Edward Elgar.
- Boschma, R. (2004). Competitiveness of regions from an evolutionary perspective. *Regional Studies*, 38(9), 1001-1014. dx.doi.org/10.1080/0034340042000292601
- Camagni, R. (2002). On the concept of territorial competitiveness: Sound or misleading? *Urban Studies*, 39(13), 2395-2411. dx.doi.org/10.1080/0042098022000027022
- Christaller, W. (1966). *Central places in Southern Germany*. New York, NY: Prentice-Hall.
- Ciccone, A., & Hall, R. E. (1996). Productivity and the density of economic activity. *American Economic Review*, 86(1), 54-70.
- Cronon, W. (1991). *Nature's metropolis: Chicago and the Great West*. New York, NY: W. W. Norton.
- Davis, M. (2006). *Planet of slums*. London, UK: Verso.
- Delgado, M., Porter, M. E., & Stern, S. (2012). *Clusters, convergence, and economic performance* (NBER Working Paper No. 18250). Cambridge, MA: National Bureau of Economic Research.
- Eurocities. (1989). Eurocities manifesto. In *Barcelona Conference*. Barcelona, Spain: Eurocities.
- Florida, R. (2002). *The rise of the creative class*. New York, NY: Basic Books.
- Glaeser, E., & Gottlieb, J. (2006). Urban resurgence and the consumer city. *Urban Studies*, 43(8), 1275-1299. dx.doi.org/10.1080/00420980600775683
- Globalization and World Cities Research Network. (2013). *The Globalization and World Cities Index*. Retrieved from www.lboro.ac.uk/gawc
- Gordon, I., & Buck, N. (2005). Introduction: Cities in the new conventional wisdom. In N. Buck, I. Gordon, A. Harding, & I. Turok (Eds.), *Changing cities* (pp. 1-21). London, UK: Palgrave Macmillan.
- Institute for Management Development. (2013). *World competitiveness yearbook 2013*. Lausanne, Switzerland: Institute for Management Development. Retrieved from www.imd.org/wcy
- Inter-American Development Bank. (2012). *VI Competitiveness summer school*. Washington, DC: Inter-American Development Bank. Retrieved from www.competitiveness.org
- Jacquemin, A., & Pench, L. R. (1997). *Pour une compétitivité européenne: Rapports du groupe consultatif sur la compétitivité* [Towards a European competitiveness]. Paris, France: De Boeck Université.
- Kresl, P. K., & Singh, B. (1995). The competitiveness of cities: *The United States*. In Organisation for Economic Co-operation and Development (Ed.), *Cities and the New Global Economy* (pp. 424-446). Melbourne, Australia: Organisation for Economic Co-operation and Development and the Australian Government.
- Kresl, P. K., & Singh, B. (1999). Competitiveness and the urban economy: The experience of 24 large U.S. metropolitan areas. *Urban Studies*, 36(5-6), 1017-1027.
- Kresl, P. K., & Singh, B. (2012). Urban competitiveness: The case of U.S. metropolitan centres. *Urban Studies*, 49(2), 239-254.
- Krugman, P. (1994). Competitiveness: A dangerous obsession. *Foreign Affairs*, 73(2), 28-44. dx.doi.org/10.2307/20045917
- List, F. (1848). *The national system of political economy*. New York, NY: August M. Kelley Publishers.
- Lösch, A. (1954). *The economics of location*. New Haven, CT: Yale University Press.
- Malecki, E. J. (2002). Hard and soft networks for urban competitiveness. *Urban Studies*, 39(5-6), 929-945. dx.doi.org/10.1080/00420980220128381
- Malmberg, A. (2002). *Klusterdynamik och regional näringslivsutveckling* [Cluster dynamics and regional industrial development]. Stockholm, Sweden: Institutet för Tillväxtpolitiska Studier.
- Markusen, A. (1996). Sticky places in slippery space: A typology of industrial districts. *Economic Geography*, 72(3), 293-313. dx.doi.org/10.2307/144402
- Marshall, A. (1890). *Principles of economics*. London, UK: Macmillan.
- Maskell, P., & Törnquist, G. (2001). *Building a cross-border learning region: Emergence of the North European Oresund Region*. Copenhagen, Denmark: Copenhagen Business School Press.
- McCranahan, D. A., Wojan, T. R., & Lambert, D. M. (2011). The rural growth trifecta: Outdoor amenities, creative class and entrepreneurial context. *Journal of Economic Geography*, 11(3), 529-557. dx.doi.org/10.1093/jeg/lbq007

- McFetridge, D. G. (1995). *Competitiveness: Concepts and measures*. Ottawa, Canada: Industry Canada.
- Negrey, C., & Zickel, M. B. (1994). Industrial shifts and uneven development: Patterns of growth and decline in U.S. metropolitan areas. *Urban Affairs Quarterly*, 30(1), 27-47. dx.doi.org/10.1177/004208169403000102
- Ni, P. (2000). *China urban competitiveness: Theoretical hypothesis and empirical test*. Nankai, China: Nankai University.
- Ni, P., & Kresl, P. K. (2010). *Global Urban Competitiveness Report, 2010*. Cheltenham, UK: Edward Elgar.
- Organisation for Economic Co-operation and Development. (1994). *Cities and the new global economy*. Paris, France: Organisation for Economic Co-operation and Development.
- Parkinson, M., Hutchins, M., Simmie, J., Clark, G., & Verdonk, H. (2004). *Competitive European cities: Where do the core cities stand?* London, UK: Office of the Deputy Prime Minister of the United Kingdom.
- Pollard, J., & Storper, M. (1996). A tale of twelve cities: Metropolitan employment change in dynamic industries in the 1980s. *Economic Geography*, 72(1), 1-22. dx.doi.org/10.2307/144499
- Porter, M. J. (1990). *The competitive advantage of nations*. New York, NY: The Free Press.
- Power, D., & Lundmark, M. (2004). Working through knowledge pools: Labour market dynamics, the transference of knowledge and ideas, and industrial clusters. *Urban Studies*, 41(5-6), 1025-1044. dx.doi.org/10.1080/00420980410001675850
- Rantisi, N. (2004). The ascendance of the New York fashion. *International Journal of Urban and Regional Research*, 28(1), 86-106. dx.doi.org/10.1111/j.0309-1317.2004.00504.x
- Reich, R. B. (1992). *The work of nations: Preparing ourselves for 21<sup>st</sup> century capitalism*. New York, NY: Vintage.
- Ricardo, D. (1911). *Principles of political economy and taxation*. New York, NY: J. M. Dent.
- Rizov, M., Oskam, A., & Walsh, P. (2012). Is there a limit to agglomeration? Evidence from productivity of Dutch firms. *Regional Science and Urban Economics*, 42(4), 595-606. dx.doi.org/10.1016/j.regsciurbeco.2012.02.006
- Sassen, S. (1991). *The global city: New York, London, Tokyo*. Princeton, NJ: Princeton University Press.
- Sassen, S. (1998). *Urban economy and fading distance*. The Hague, The Netherlands: Megacities Foundation. Retrieved from <http://megacities.nl/?s=key+element&searchsubmit=>
- Sassen, S. (2010). The repositioning of cities urban regions in a global economy. In P. K. Kresl (Ed.), *Economic strategies for mature industrial economies* (pp. 249-287). Cheltenham, UK: Edward Elgar.
- Scott, A. J. (2012). *A world in emergence: Cities and regions in the 21<sup>st</sup> century*. Cheltenham, UK: Edward Elgar.
- Scott, B. R., & Lodge, G. C. (1985). *U.S. competitiveness in the world economy*. Boston, MA: Harvard Business School Press.
- Smith, A. (1937). *An inquiry into the nature and causes of the wealth of nations*. New York, NY: The Modern Library.
- So, M.-S., & Shen, J. (2004). Measuring urban competitiveness in China. *Asian Geographer*, 23(1-2), 71-91. dx.doi.org/10.1080/10225706.2004.9684113
- Sobrinho, J. (2012). The free trade agreement and urban competitiveness in North America. In J. Sobrinho (Ed.), *Urban competitiveness: A global and for Mexico perspective* (pp. 169-206). Mexico City, Mexico: El Colegio de México.
- Taylor, P. J. (2004). *World city network: A global urban analysis*. New York, NY: Routledge.
- Thompson, D. (1996). *The Oxford compact english dictionary*. Oxford, UK: Oxford University Press.
- Törnquist, G. (2011). *The geography of creativity*. Cheltenham, UK: Edward Elgar.
- Turok, I. (2004). Cities, regions and competitiveness. *Regional Studies*, 38(9), 1069-1083. dx.doi.org/10.1080/0034340042000292647
- Wolfe, D. A., & Gertler, M. (2001). Clusters from the inside and out: Local dynamics and global linkages. *Urban Studies*, 41(5-6), 1071-1093. dx.doi.org/10.1080/00420980410001675832
- World Bank. (2008). *World Development Report 2007: Reshaping Economic Geography*. Washington, DC: The World Bank.

## Author Note

Peter K. Kresl, Charles P. Vaughan Professor of Economics Emeritus, Bucknell University, Lewisburg, PA 17837, USA.

Correspondence concerning this article should be addressed to Peter K. Kresl, Email: [kresl@bucknell.edu](mailto:kresl@bucknell.edu)

This paper was not supported by any foundation or university source.

## Editors of the Special Issue

Vincent Charles, Ph.D., CENTRUM Católica Graduate Business School, PUCP, Peru

Christian H. M. Ketels, Ph.D., Harvard Business School, Boston, MA, USA