Originally drafted for a World Bank study of competitiveness in four Latin American cities, 2007

CITY COMPETITIVENESS

Nigel Harris

Contents

Executive Summary	1
I. In what senses do cities compete?	5
a) the city economy;	
b) criteria of success and failure	.
II. Rating cities and competitiveness	11
a) general ratings	
b) Special purpose ratings	
c) Case or group studies	
III. Local government and city competitiveness.	17
IV Four Latin American cities	19
(a) sectors of public provision	
i) transportation	
ii) security	
iii) housing and land	
(b) government contribution	
V Conclusions	22
a) measures of city competitiveness	
b) benchmarks	
Notes	25
References and works consulted	26

Executive summary

1. *Cities have always competed but in the long period of central government domination, many were reduced to being primarily local instruments of central government policy. Globalisation has allowed cities to become more autonomous local management-logistic centres where competitiveness between cities becomes a primary means of comparing performance and generalizing reform/best practice.*

2. *Measuring city competitiveness is an attempt to estimate a city's relative economic strength and potential. But while cities do compete, they do not do so as firms. Their primary purpose is not to produce a marketable output nor to maximize the rate of return on assets. Indeed, cities do not have one output nor clear inputs. Nor can they be bankrupted or liquidated. For any particular city, other cities provide the markets for the output of its firms so cities are necessarily collaborative as well as competitive.*
3. *City authorities are defined by law with specific functions in the administration of a part of national territory and they are usually only allowed risk-taking activity under strict*

safeguards. There can be no new entrants to the same field of responsibility. The successes of urban leadership are in the political field not in profit-maximization. However, although local government is not profit maximizing, it plays an essential role in making possible the profit maximizing behavior of the city's firms – in the provision and management of infrastructure, in the management of the city junctions in flows (transport terminals, markets), in the regulation of specialized districts (for example, the central business district), in promotion and planning, in leading the city's response to long-term structural change and short-term shocks.

4. *The identification of the city* economy *is, however, not self-evident. The boundaries and powers of local government are statutorily fixed and inflexible, whereas the territorial area of economic activity or population economically associated with the city is not. Indeed, the more dynamic economic activity, the less the coincidence between these two territorial entities. With globalisation, the city economy becomes unbounded, a scatter of logistical centres for what may be global networks. The larger metropolitan region - a polynucleated territorial area – may contain clusters of activity whose interaction is more with clusters on the other side of the world than those within the region. This makes for a fundamental imprecision in defining the city economy. This is exaggerated by the fact that so much city economic activity is statistically unrecorded, informal. Furthermore, the data required for even moderately sophisticated monitoring or evaluation of the city economy is rarely collected at the city level. However, city managers are responsible for dealing with economic activity within their given territory and this is frequently of disproportionate importance for the national government so that, regardless of these qualifications, they must respond to the data they have.*

5. *The criteria of success or failure in competitiveness defines the concept. There are an immense variety of possible definitions reflecting different purposes, audiences and theories of city economies. However, many in substance, focus on the traditional criteria of local government – the satisfaction of the inhabitants. An associated question is the class of competitors. In practice, cities compete in much narrower fields than the city as a whole – in, for example, financial centres, airport or seaport hubs, cultural, sport, medical or higher education centres etc. The class of competitors may be different in each case. Specifying the sector allows the identification of more precise performance indicators as well as the relevant class of competitors (and hence the benchmarks against which performance is to be measured). So far as city managers are concerned this allows monitoring of the weaknesses and strengths of the city economy.*

6. *General city competitiveness ratings are revisions of national economic ratings as in those produced for the World Economic Forum but framed in the light of specific purposes. One of these purposes in many measures is assessing how far cities have made the transition from being centres of material production to being centres of information and learning, of innovation. The spread of modern technology means that such concerns are no longer confined to cities in developed countries – thus, all cities in part may begin to identify their competitive standing with the recruitment of scarce skills. Other ratings are concerned with identifying cities most hospitable for offshoring or for business generally – as in national rating systems in China, the Philippines and Vietnam.*

7. *Case Studies. The promotional literature of different cities indicates the different elements city managers identify as important to their competitive strength and the type of enterprises and migrants they hope to attract. This follows what has become a conventional agenda of*

what is seen as the future city economy. In intention, more objective were the SWOT analyses which were supposed to precede the formulation of city development strategies (promoted by the World Bank and the City Alliance). There were many important studies here – Kigali, Recife, Cali; but like city studies undertaken elsewhere (Johannesburg, Kingston Jamaica, Warsaw), they were not specifically anchored in a competitive context This was not true of, for example, the now out-of-date study of London that employed relatively original approaches (the London study has a changing class of competitors for each sector examined). McKinsey's Mumbai, however, takes only cities as rivals and is therefore much less illuminating. Kresl's study of Montreal – in the context of 40 US and 7 Canadian metropolitan regions - employs a diversity of criteria on a more robust basis to assess competitveness. The UK Economic and Social Science Research Council financed a large number of research studies on UK cities (Competitiveness and Cohesion) in the late 1990s and this provided rich data although no consensus on defining the basic concepts.

The variety of these studies illustrates the diversity of purposes and audiences for city ratings, and the need to be clear in identifying these two issues before seeking indicators. So far as urban managers are concerned, the disaggregation of the city economy into its constituent sectors and subsectors for the purposes of assessing competitive strength is probably more useful than general city ratings where the competitors are not specified.

8. *Local government is clearly fundamental to the working of the local economy, the welfare of the inhabitants and the competitive standing of both the city's firms and of the city. However, it is exceedingly difficult to quantify this economic contribution comprehensively. That is easiest in the provision (or collaboration in the provision and regulation) of infrastructural services – power, water, sewerage, transport and highways). In some cases, provision of the relevant infrastructure is the precondition for private firms - as with airports and tourism. Local government is usually of fundamental importance in managing flows through the city, the connecting of the world to the transport junctions (air, sea and river, road, rail) and commuter movement, the location and management of wholesale, retail and financial markets. Traffic management is possibly the supreme test of a city administration and the sector where the resultant waste from poor management is most inescapable.*
   Local governments manage specialized districts and have a role in managing specialized clusters of activity, new business etc. Public regulation to offset negative externalities is often vested in city government. Finally, city government embodies the political leadership of the stakeholders, the instrument to expand city markets by developing city facilities (museums, art galleries, libraries etc.), attracting outside events (festivals, sports, conference etc), and sometimes embodying these in an on-going strategic vision.

9. *As noted, however, it is only in parts that this economic contribution can be quantified, and then not comprehensively. Given the competitive context of city politics, it is virtually impossible to undertake such an exercise in order to evaluate the opportunity costs of city policy choices. At the anecdotal, we can see the impressive transformation of Barcelona as the result of the city winning the Olympic Games for 1992, or the successive plans for New York (associated with different mayors) but the political context usually makes it impossible to consider alternatives other than those chosen, the opportunity costs.*

10. *For the study of four Latin American cities, three sectors of public provision have been selected – transportation, security and housing (including land and office development). Of these,* ***transportation*** *is clearly of fundamental importance, particularly in the context of*

global supply chains (and just-in-time stock policies) flowing through the city. While the physical components of transport infrastructure (highways, airports, seaports etc) tend to receive most attention, economically more important, as mentioned, is the basic city management of flows. The key role of the city in meeting the requirements of out-of-town consumers (through markets, retail trade, provision of producer services, etc) is also economically crucial. Thus, poor traffic management can directly threaten the economic competitiveness of the city

On the other hand, in ***security,*** *firms and better off citizens can usually purchase private substitutes for poor public services. The burden of poor public security thus falls disproportionately on the poor, areas, often localities with a high number of small and medium enterprises (registered and unregistered). In the worst cases, whole neighbourhoods are abandoned to illegal or criminal activities with gangsters collaborating with a corrupt police-force. This can constitute a major loss of city assets (often including what would be, with adequate security, high value inner city land), and in the medium-term toleration of a significant black economy, generating funds that are often laundered through the white economy, particularly in land and property development, and potentially corrupting both the political order and the police forces.*

On the other hand, it is not clear that ***housing and land development*** *– is of such overriding importance to many of the citizens and to new migrants as to affect business behaviour and thus the city's competitiveness. Higher returns to city enterprises – and generally higher productivity – may more than offset the burden of high city costs.*

Finally, of the four cities chosen, three are national capitals, one the capital of a federal State. Thus, the competitiveness of the city economies concerned benefits to a greater or lesser extent from the public subsidy implicit in providing the location for significant national or State government activity (financed through levies on the rest of the country. This gives these cities a particular advantage over cities lacking this subsidy.

11. *Conclusions. Measuring city economic competitiveness is an attempt to assess the economic strength of a city economy compared to other cities. The concept of a territorially defined city economy is however increasingly problematic compared to the legally defined territory of city government. There are also many different perspectives on what constitutes "economic strength". Productivity (of labour or capital) is seen as the most accurate measure of this, but given the difficulties in easily obtaining relevant data, it is probably only realistic to settle for the less reliable, per capita income (which, unlike productivity per employed worker, includes income from outside the city – profits, dividends, migrant remittances, etc).*
    The argument here has been that insofar as urban mangers are concerned, more useful than general city ratings are performance indicators monitoring key sectors and subsectors of the city economy, in the context of the changing class of competitors. This covers sectors of tradeable goods and services with their specialized localities, city-wide strategic functions (transport junctions, markets- exchanges), and the leadership-promotional functions of city leadership. The class of sectoral competitors provides the benchmarks for assessing city performance.

1. Introduction: In what senses do cities compete?

The idea that cities compete economically has over the past three decades become fully absorbed into the purposes of urban management. It has had the useful by-product that city authorities, stake holders, and citizens have once more become accustomed to comparing performance indicators for their own and other cities, to observing other cities and drawing lessons for their own. This in turn stretches the management of cities to maximize the urban contribution to national economic growth. Furthermore, rating cities by performance indicators has become an instrument for reform, for standardizing best practice, and generally making city managers much more self-aware in their undertakings.

However, cities – or rather city authorities – competing with each other, is as old as cities themselves. Consider the competition of city-States in ancient Greece, or the competitive cathedrals of the medieval Italian City Republics, or Bombay's long contest with Calcutta in nineteenth century British India. However, the long period of highly centralized national States, dominating much of the twentieth century, reduced many cities to being simply the administrative arms of central government (and there are still examples of this kind) where it makes little sense to speak of competing cities (unless they are competing for a share of central government funds).Thus, the idea of cities competing already presupposes a degree of autonomy, a measure of decentralization of powers, of urban management that formerly they often lacked.

Opening up national economies to world markets has restored to cities a competitive role not only with other cities in the same country but transnationally. In the closed or semi-closed national economy, government worries over, for example, Mexico City, concerned its size of population and concentration of economic activity; in the open economy, the North American Free Trade Area, the worries concern the city's capacity to compete with Los Angeles, Houston, Chicago etc.

City competition has also had the effect, however, of identifying the urban economy as fundamental to the achievement of national economic goals and thus there has been a remarkable transformation in national governments' view of cities. Formerly, the generally higher per capita income of urban areas was identified as a failure of national distribution policies, whereas now it is recognized as the result of higher productivity: of greater capital intensity, higher levels of human capital, and a greater density of infrastructure. These distinguishing marks of the urban economy vary between countries (OECD:2006:63-)as does the sometimes higher levels of open unemployment. Given that cities are the most dynamic components of the national economy, the elements subject to most rapid change and restructuring, in the absence of public intervention, high rates of unemployment may well generally coincide with high rates of employment growth, poverty with wealth.

At the level of the national government, city “competitiveness” has come to mean relative economic strength, a crucial component in national economic competitiveness. Thus, rating a city's competitiveness becomes a guide to appropriate national urban policy, itself now an important dimension of macro economic policy and the pursuit of national economic development

City authorities do compete, but they do not do so in markets (as ordinarily understood), nor as firms. The criteria of success and failure in markets – or for firms – are reasonably precise. Firms go bankrupt, are liquidated or taken over, none of which normally happens to cities. City authorities exist to administer supply, and represent a share of a national population and territory, not to compete or maximize the rate of return on investment. In open markets, in principle anyone can create a firm to supply the market. But city authorities are created and sustained by the law. They do not have markets and no one can freely set up an alternative local government[i].

Hence, the criteria of success and failure for city governments are within the **political,** not the market, system. Mayors, for example, may compete for power, status and influence within a political order, but not – unless they are corrupt - to maximize their income. Where running a city is a stepping-stone to running the country, the rewards may be substantial, but they are not profits.

The city is the *context* within which firms compete, the terrain on which markets operate (although not all firms are located in cities). Unlike a firm, a city does not have a clear output against which clear inputs can be identified and the criteria of efficiency or success specified. It does not have, as a firm does, a clear capital stock employed for an identifiable purpose. Its output is not marketed, and markets do not determine its success or failure.

Or, to put it in a different way, the "outputs" of the city are so diverse and for so many different consumers (and can be allocated only arbitrarily), enumerating them does not allow us to evaluate the city as a single enterprise. Does a city exist to house or feed or entertain its changing share of the inhabitants of the country? to offer a framework for firms to supply regional, national or global markets with specialized inputs? to generate tax revenue and ensure order for a national government? Or any of the many other purposes?

We would find an analogous analytical confusion if we decided that firms existed not to produce a specified output with given inputs, but to employ a given number of workers in pleasant circumstances or reduce air pollution or stimulate the enrichment of culture (the firm may do these things but, for analytical purposes, incidental to its central aim).

In fact, the idea of clearly identified "inputs" and "outputs" breaks down with the city since it is both - the inhabitants, as workers, are part of the city's inputs (if the city is seen as a production unit), but they are also the market, the consumers of part of the city's output [ii.]

The survival of the city authority does not depend upon the quality of its local government – it has a statutory existence independent of performance. But the survival – or success – of the city economy depends upon the competitive strength of the city's firms, working with the local authority.

On the other hand, the city economy is located in a settlement system. Its survival may therefore turn on its membership of that system rather than any peculiar attributes of its own. With globalization, there is a case for identifying the world economy as a "common market of metropolitan economies" (OECD, 2006:50), their interaction sustaining the whole rather than the attributes of any particular participant – the cities are the territorial economy rather than being one of the players.

Cities compete but they also depend on collaborating with each other. Each city provides the market for the output of all the others, so each has an interest in the prosperity and economic expansion of its competitors. This is further emphasized in contemporary terms by the much enhanced role of cities in a global division of labour, by the importance of cities as junction points in flows – of goods, people, finance, ideas. City authorities certainly compete to capture key roles in these flows – air and sea ports, road and rail junctions, telecommunication hubs – but once in operation, rely, not on competition, but on the continual interaction with other cities.

The stress on cities competing conceals this component of collaboration and the patterns of mutually supportive specialization, a geographical division of labour, which underpins the prosperity of each city. Many indicators of competitive sectors may be so aggregated, they heighten the appearance of competition and conceal collaboration – city A's hospitals may be identified as competing in the provision of medical care with the hospitals of city B until we see that city A's hospitals specialize in heart surgery but city B, in cancer, so cancer patients from city A go for treatment to city B and heart surgery patients to city A – they are not competing in the same market but are mutually interdependent.

By and large, city authorities – except where they constitute independent States (as with Singapore or Hong Kong with access to the full range of macro economic policy instruments) – do not have the powers required for effective economic management. Normally, the rigidity of local government structures, framed in administrative/bureaucratic (not market) terms, makes it impossible for city managers to emulate the flexibility required to adjust to shock or long-run structural change. Competitiveness is thus severely constrained.

However, the issue of flexibility, even if constrained, is still important at the city level – for example, in questions like:

- does the land market operate flexibly enough to allow incremental upgrading to offset urban dereliction?
- Does the city labour market operate flexibly enough to smooth the transition between layoffs and new hirings?
- Is the creation of firms easy enough to compensate for the rate of bankruptcies?
- How well equipped is the city – government, firms, inhabitants – to exploit new economic opportunities and absorb economic shocks?

This highlights a difficulty in the idea of city competitiveness – it supposedly identifies a set of present attributes of the city which, other things being equal, will ensure future “success” (whatever that is to mean). In practice, there seems to develop a fashionable or conventional wisdom among city managers about what is required for future success, derived from one version of what famously successful cities are said to have done, even though often the hard evaluative evidence is lacking (or occurs far in the future) to confirm these views.

The concept is predictive in a context where prediction is notoriously unreliable. In the case of the firm, the entrepreneur is expected to employ his or her capital and borrowings to undertake the risks of an unknown future, and is punished with bankruptcy and possible liquidation if the gamble proves wrong. But city managers would be entirely betraying their mission – their responsibility to their citizens – if they dared to gamble on an uncertain future. Being part of the context, the city is obliged to be politically responsible first and foremost to its citizens (and its central government) and this rules out behaving as a firm.

However, while cities may not normally fear bankruptcy and liquidation, there are clear signs of economic failure –

- a high bankruptcy rate without compensating firm creation;
- congestion and pollution;
- poor public service performance;
- high and rising unemployment (especially long term unemployment);
- declining household incomes;
- spreading urban dereliction;
- some might also add, a rising share of statistically unrecorded economic activity or housing, the “informal sector” (although, this is primarily a legal, rather than economic, issue).

It was the rapid increase in some of these negative features which spurred the cities of Europe and North America in the 1970s and 1980s to pay attention – competitively - to their economies. During these economic strains, it was clear some cities suffered less than others and this was sometimes attributed to the distinctiveness of the city's assets or management, rather than good luck or a more favorable inheritance. Generally, faced with what seem superficially, to be common problems, cities experience quite different outcomes - to short-term shocks (for example, the cities of east and south-east Asia facing the financial crisis of 1997/8) or long-term structural change (compare deindustrialization in Hong Kong and Detroit).

However, what finally determines the economic success of a city – defined as the prosperity of the citizens - are the market responses of the aggregate of the city's firms. In this, it would seem that the role of city managers, of local government, is in the short-term necessarily marginal. Local government is important in the provision of those services without which businesses cannot function, which lower costs of production and movement – from transport facilities to basic services, education and health, but these are only crucial on the margins of business activity (or rather are more important negatively when they fail than positively when they don't).

On the other hand local government is both an essential manager of the city and its political leadership, again responsibilities which go far beyond the interests of any individual firm or even the collectivity of firms (since local government represents the citizens, not exclusively its businessmen). City government usually has a key role in the creation and management of the environment of

- of key junctions – air, sea, road, rail – and communications;
- in markets (goods. finance);
- in key specialized quarters – finance, retail trade, culture, health care, sports;
- and responsibility to frame and implement the city's strategic vision:
  "The economics of metropolitan regions must constantly reorient themselves through structural and microeconomic adjustments and respond quickly and effectively to problems in relation to the enhanced mobility of capital, skilled labour and technical innovation" (OECD, 2006:19).

City government is also looked to for leadership for the city in its response to economic, political and natural shocks

Discharging these responsibilities may be decisive for the city's economy yet not necessarily falling within the purview of any particular firm (but more usually dependent on public-private partnerships) or even meeting the current interests of existing firms.

The role of leadership cannot easily be quantified but it goes well beyond the interests of the individual firm and appears to play an important role in a city's success or failure..

The City economy.

A city is defined as a political-administrative territorial entity with a clearly demarcated boundary and sharply differentiated legal powers vested in authorities on either side of the boundary. The powers are part of a national political system and normally relatively inflexible. In the nineteenth century when many of the larger cities were originally identified, the local government boundaries perhaps enclosed territorially coherent clusters of economic activity that constituted the "city economy".

However, neither economies nor populations are territorially stable in the way that local government demarcations are required to be. On the contrary, in a dynamic economy, they are highly unstable. With economic globalization, the city economy has become in important senses, unbounded. The activities that take place within and around city local authority areas may well constitute no more than the logistical/management centres of possibly global economic networks that reach far beyond the control – or even knowledge – of local and national authorities. The existing administrative boundaries then may make little sense in terms of functioning economic-geographical relationships[iii]

Given the entrenched political interests of the old order of territorial government, it is notoriously difficult to reform it in order to draw it into closer alignment – if that is possible - with the territorial economy. But then the same observation applies to national economies as centres or parts of global networks. And perhaps it does not matter other than to remind ourselves that when we refer to the "city economy" its territorial extent is always going to be unclear.

The precision of the data must thus be accordingly qualified. The local authority – as provider of public services – power, transport, water supply and sewerage, housing, health, education and territorial management – may cover only a territorial fragment of the economic activity linked to the city – but it is nonetheless an important component of the economy (regional, national, global)

Even if we extend our conception of the city economy to include broader areas of interaction – the city commuting area, the banking network, the retail trade network or even the area of interdependent manufacturing, the city economy is often a fragment of much larger economic regions or areas of economically interacting cities, towns and villages, a "polynucleated urban region" (as for example in the Central Valley of Mexico, the Pearl River delta in China or the Mumbai-Pune-Nasik region of central India). The larger area may include many interdependent elaborated patterns of territorial specialization, operating independently of the many local governments involved[iv]. And those clusters may be in much greater economic interaction with other clusters scattered around the world than with local centres.

The region may include vast numbers of small and medium enterprises, dependent on distant city services, but not registered as part of the city. They may be the source of the next major transformation of the city economy and its output, but are not included in the statistical identification of the city.

The impossibility of defining a city economy in economically defensible terms (a territorially coherent cluster of economically interdependent activities) is only part of the statistical/management problem, since in many countries such a high proportion of economic activities within the city (however defined) is statistically unrecorded or "informal". Thus, any estimates of city productivity, based perhaps on the productivity of a sample of city firms (since we often do not know the universe of firms, we cannot know the representativeness of the sample), must be powerfully qualified by this hidden base to the iceberg.

In any case, many of the data sets available at the national level do not exist for cities, and this severely constrains the opportunities for precise measures of city economic performance. Rating city competitiveness is thus thrown back on less sophisticated indicators than might, in theory, be employed.

Local government managers must deal with the data they have, with the city economy which presents itself, even if this is an imperfect basis for drawing precise economic conclusions. In the end, whether the city economy – as a territorial entity - can be defined satisfactorily is going to be both arbitrary and somewhat academic. Local government remains charged with responsibility for managing an area which often, though not invariably[v], makes a disproportionate contribution to the national economy, so it is a major responsibility for city management to ensure it enhances that contribution.

However, in order to be effective, local authority managers do need to have some idea of what constitutes success in the competition with other cities, and it is here that the conceptual confusion is exaggerated as to what the purposes of a city are, what is the class of competitors within which any particular city is competing, what are the city's clients, constituencies, audiences or markets.

The criteria of success

Consider these definitions of city competitiveness:

1. “ultimately competitive regions and cities are places where both companies and people want to locate investment” (Kitson, M and Tyler et al., 2004)

2. “the ability...to generate , while being, and remaining, exposed to international competition, relatively high factor income and factor employment levels” (Cellini, 2000)

3. “an economy is competitive if its population can enjoy high and rising standards of living on a sustainable basis” (European Commission, 2004)

4. “the ability to continually upgrade the business environment, skill base, and physical, social and cultural infrastructure so as to attract and retain high growth, innovative and profitable firms and an educated, creative and entrepreneurial workforce, thereby allowing them to achieve high rates of growth, of productivity, high employment, high wages, high gross domestic product per capita, and low levels of inequality and social exclusion” (Simmie et al, 2006).

5. “given perfect competition, all firms achieve a yield on their capital in line with real interest rates; all other firms are forced out of the market”, Meyerhoff (2005)

6. “City competitiveness is.. the ability of a city or ('government') to support their firms, striving for market access, by the provision of complementary assets (infrastructure, human capital, market access, etc.), Mayerhof (2005)

Although the fourth citation is almost a social and political manifesto, none of the definitions follows the idea of the city as firm to its logical conclusion – the city achieves a competitive rate of return on its assets (whatever those are). All to an extent return to the traditional criterion for a successful city government (as opposed to a successful firm) – it satisfies its inhabitants (although it does not say who the city is or when – does it include immigrants and/or non-workers?) and firms.

In other definitions, the criterion is more explicitly related to a world where capital and labour are mobile, and a competitive city is one able to attract and retain such factors (as in the Simmie citation).

Yet others identify “productivity”- closely associated with the incomes of the city workforce - as the measure of success. Presumably this is the productivity of a sample of firms (a difficult measure to quantify for the reasons already mentioned), rather than the productivity of city services. Per capita income/product (or in its data rich and more precise form, Gross Value Added per employed worker) are favored measures of success here. In that context much more emphasis is put on the climate for business and business related attributes (such as accessibility, educated labour force, etc).

Some add what are identified as the sociological preconditions for competitiveness: the social cohesiveness of the population[vi]. The relationship between city economic competitiveness and social cohesion provided the theme for a major research programme in Britain which will be discussed later.

We have already suggested that the confusion in specifying the attributes – and thus, the criterion for success – for a competitive city arises from the diversity of activities, purposes and "clients/consumers" of a city. Attempting to assess the attributes of a whole city – as expressed in general ratings - need not touch upon those areas where the city is in fact competing. That can be achieved only by disaggregating the city into its constituent competitive sectors and specifying the appropriate performance indicators for each sector.

A conceptually decisive associated question concerns the competitors (without which we can hardly assess the competitiveness of a city). Hitherto we have assumed that the class of competitors are cities (and the term confuses city firms, inhabitants and local government) – hence the general ranking of cities by some index of competitiveness. In practice, however, cities compete in much narrower sectors – as centres of finance and business services, of manufacturing, culture, medical services, sports, as transport junctions, tourist destinations and – with product differentiation, many more specialized subsectors of activity.

On the other hand, the competition of firms does not coincide with that of cities. A firm may have competitors in a dozen locations, none of which is a city competing with their own (and some competitors may be located in rural areas). The competition of cities cannot therefore be reduced to the competition of firms except in those sectors where cities – and associated firms - are competing. Many of these cases are locationally specific – for example, in tourism – or associated with strategic elements of the city infrastructure (for example, the airport).

Some of these sectors overlap or are mutually self-reinforcing – a banker may visit the financial centre on business, consult a hospital, hire a lawyer, visit the library, take in an opera or football match. The combination may indeed be the competitive strength of all and it would nullify that strength to separate them out for isolated assessment.

Specifying in what a city is competing and with whom gives us, other things being equal, both more precise statistical or other indicators of comparative performance and more targetted indications of what constitutes success and failure. Such disaggregated measures also allow us to track what is increasingly common, geographically remote competitors – for example in opera, say, between Milan, London, New York, Sydney; or in software programming between Bangalore, Manila, Prague, Dublin and Budapest - rather than assuming that because cities are geographically close to each other, they are automatically competitors.

Of course, where all cities in a country are competing for central government funds, it is understandable that cities prefer nonspecific ratings on the same scale (as we shall see later in the case of China, the Philippines, Vietnam etc.), but these are much less helpful for city managers in the context of city rivalries – and hence policy responses - and for investors.

Furthermore, such general ratings have the drawback of concealing what ought to be an important consideration in competitiveness ratings – a city's unique character. After all, people visit cities and sometimes settle there precisely because they are not the same as other cities, because they have, for example, a unique physical configuration (a group of islands like Hong Kong or Manhatten), a unique historical past or culture. Here it is much less easy to produce precise comparative indicators of the economic value of such assets even though they may be – in for example, tourism – of overriding importance in competitiveness. A consortium of smaller cities in Europe is promoting it self, not as centres of modern services or standard urban assets, but as unique places - Chester(UK); Visby (Sweden);Vale do Lima (Portugal); Limerick (Eire);Salerno and Catania (Italy).

We shall return to these issues in seeking to select what kinds of indicators are most appropriate. But before we do that, it is worth surveying in more detail some of the ways in which city competitiveness is currently assessed.

II. Rating city competitiveness

a) General ratings

There are now a large number of ways of rating city attributes, far too many for them to be comprehensively, or in detail, reviewed here. We select some examples.

Many ratings start from the model of national competitiveness presented in the annual assessments of the World Economic Forum, a kind of economic parallel to the financial assessments provided by credit-rating agencies. The International Institute for Management and Development provides a parallel rating – with four groups of statistical indicators – economic performance, government efficiency, business efficiency and infrastructure, and a wide range of component indicators to cover the constituents of national economic growth. The methodology can provide the basis for evaluating regional or city economies. Parkinson (in ODPM, 2004) employs this method with a set of six summary variables – economic diversity, quality of life, skills in the labour force, internal and external connectivity, innovation in firms and organizations, and the presence of strategic decision-making capacity.

A number of other methods for rating cities or groups of cities in one country are also employed. For example, the Beacon Hill Institute (Suffolk University, Boston Mass.)[vii] publishes annually a Metropolitan Area Competitiveness Index for 50 American metropolitan areas. It employs nine complex summary variables –

government, institutions and fiscal policy (local tax burdens);
security and honesty in transactions;
infrastructure (including household internet access);
human resources (and employment costs);
technology (including research and development spending and the proportion of scientists and engineers in the labour force);
access to finance and the costs involved;
openness of the economy to the world;
rates of business creation and destruction;
environmental policies and regulation.

Some of these variables include elements which reflect the continuing preoccupation of city managers in developed countries with making the transition from a city economy based on material production to one predominantly based upon knowledge, innovation and ideas.

(i) Special-purpose ratings

The knowledge city[viii] is explicitly recognized in the Huggins Associates index of a world knowledge competitiveness rating for 125 regions of the world (55 in North America, 45 in Europe and 25 in the Asia-Pacific region). 19 benchmarks are employed, including employment in the "knowledge economy"; patent registration; research and development spending; educational expenditure; information and communications; technological infrastructure; access to private equity[ix].

At the core of the conception of a knowledge city is the idea of a centre of innovation, learning and technology (with many methodological problems in defining the statistical indicators to illustrate these attributes) rather than production. There is now a rich literature on this theme, mainly at the national, rather than the city level. Pollard and Storpor (1996) discuss this at the level of the city in terms of the share of the labour force with high wages in non-production occupations, innovation-based industries ("intellectual-capital industries"), broken down into different types of industrial groups. Negrey and Zickel (1994) reverse the procedure by seeking to identify city types by degree of deindustrialization - comparing the rise or decline of population and manufacturing employment for 138 metropolitan regions of the United States.

Meyerhof (2005) attempts a comparable exercise for 46 European cities in terms of the rise in the city economy of "future industries" - biotechnology, cultural industries and the media

One of the most ambitious exercises in this connection is the Metropolitan New Economy Index of the Progressive Policy Institute, seeking to rate cities according to the degree to which they have made the transition to what the PPI call the "New Economy"[x]. This index ranks 50 American metropolitan regions by 16 indicators in five groups – employment in the "knowledge economy"; globalisation; economic dynamism; digitalisation of the economy; capacity for innovation; and the economic development strategy adopted by the city.

The assessment of competitiveness in the post-industrial city places much greater emphasis on the importance of human capital, on attracting and retaining it[xi] It is not a new theme although much more strongly emphasized in the contemporary literature. Simon and Nardinelli (1996), examining growth and change in English cities in the century up to 1961 identify human capital as the key explanatory variable (on the US, see Simon 1998). Fujita (1996) identifies cities, as *par excellence*, locations for face-to-face unstructured knowledge exchanges, the core, it is suggested of the modern city's innovatory function. In this context, the "heterogeneity"[xii] of the city labour force is seen as an important city competitive advantage, a heterogeneity which must be continually replenished through inward migration. On this criterion, in isolation, the rate of skilled in-migration (or immigration[xiii]) - becomes the single most important measure of competitiveness.

It might be thought that the developments involved in the New Economy concern only cities based upon modern services and technology, more characteristic of developed countries, whereas cities in developing countries require more traditional analysis. The distinction does not hold since, for example, information technology has by now spread to most large cities of the world and will increasingly come to dominate the cities of developing countries – indeed, in one sense, the large cities of the world constitute a single economy of technologically similar participants. There are now numerous well-known examples of cities in developing countries which are highly competitive in sectors of information technology, whether through the outsourced subsidiaries of foreign firms or through local rivals. Thus, a skilled in-migrant and immigrant labour force may be as fundamental to the competitiveness of Bangalore, Hyderabad, Gurgaon, Manila or Chennai as to any American metropolitan area.

Do skilled workers move to cities in response to the quality of life provided by those cities (so the city authorities play a key role in attracting them), or do they move to a city in response to specific job offers (so the firm, not the city, is the agent bringing the migrant)? The evidence does not allow us to draw firm conclusions even though Richard Florida of George Mason University (2002) argues that regional economic growth "is powered by creative people who prefer places that are diverse, tolerant and open to new ideas".

At least one American city has followed this advice – Atlanta Georgia claims to have made particular efforts to recruit the college-educated in the age group, 25-34; whereas that age group is said to have declined by nine per cent nationally in the 1990s, it is said to have expanded by 20 per cent in Atlanta (Metropolitan Atlanta Chamber of Commerce, 2000). Press reports also record that some cities have made efforts to recruit highly skilled immigrants.

City managers in North America and Europe may not yet have absorbed the need to recruit highly skilled workers as the means to enhance competitiveness, but they have acquired a priority list of desirable economic clusters for their city – in bio-technology, information and communication technology, culture and creative media etc (referred to earlier as the current conventional wisdom).

A number of other countries have initiated national city ratings, presumably as means to spread local government reform and knowledge of best practice. Thus, the Chinese Academy of Social Sciences issues an annual "city competitiveness blue book", prepared by "100 experts", including five variables for 200 cities – growth of gross city product; stock of infrastructure; employment; power and water consumption and quality of life (including incomes, crime rates etc).This is constructed from available city and provincial statistical data along with subjective assessments from city focus groups (including, it is claimed, 60 managers/owners of small and medium enterprises per city).

In the Philippines, the Asian Institute of Management (with the support of USAID, the Asia Foundation, GTZ), defining competitiveness as "the ability of a city to create and maintain an environment that sustains more value creation for its enterprises and more prosperity for its citizens" assesses biennially 33 cities in terms of 7 indicators covering: the cost of living; "dynamism of the local economy"; linkages and accessibility; quality of human resources; infrastructure; responsiveness of local government; and quality of life. To this are added "45 perception-based" ratings.

Vietnam also publishes a comparative provincial competitiveness index, derived from a survey of 6,300 firms in 64 provinces. This is supported by USAID and is mainly concerned to test the effectiveness of local government from the perspective of firms.

A number of consultancies offer special purpose ratings of cities. Thus, Jones Lang La Salle, on the argument that "city governance is a key driver of city competitiveness", provide a rating for 33 cities on city management and marketing. They also provide separately an off-shoring index – to identify the ten lowest cost cities for the location of offshore activities, covering information density; human capital and costs; property costs; telecommunication quality; ease of doing business.

The inputs to the final index are weighted – 40 per cent for human capital; 20 per cent for labour costs; 20 per cent for the environment; and 10 per cent each for infrastructure and risks.

Offshore Insights also presents an annual rating for offshore locations, a Global City Competitiveness Index.. Two groups of variables are employed:

1. Generic factors – human capital costs; infrastructure; business and living conditions; risk factors.
2. Specific factors – language compatibility; physical location; socio-economic affinity; and the availability of specific expertise.

Starting with cities in India in 2004, the survey now includes cities in China, south-east Asia and eastern Europe, including more specialized of locational specificities.

Finally, one of the most comprehensive and methodologically robust ratings of the business climate in China has been undertaken by the World Bank (the latest in October, 2006 – see World Bank, 2006). It is based on responses from 12,400 firms in 120 cities, and is a direct assessment of government – local, provincial and national – as it bears on firms[xiv]. This allows calculations of the gains to firms derived from changing public behaviour, thus enhancing a city's competitive standing. In the 50 cities of the bottom quintile, for example, short-term gains of between 25 and 35 per cent in firm productivity and between 15 and 25 per cent in foreign ownership of firms (that is, direct foreign investment) could be derived from reforms in government efficiency, in labour flexibility and in finance.

(ii) Case or group studies.

Most cities, in their promotional literature present themselves in particular ways – through a selection of topics and a mode of presentation, evidence-based or rhetorical, of comparing the city with its competitors. The selection embodies the city authorities rating of the city's competitiveness and for whom such promotion is designed, whom or what they wish to attract. Take as a random example the city of Lyons (one could equally take the web sites of most large cities; see Barcelona). The Lyons Area Economic Development Authority (with the Rhone-Alpes region) enumerates the merits of the region as: connectivity to the rest of Europe; quality of the labour force; attractive sites; competitive costs (with comparisons); research and development activities; advanced services; high tech clusters. The enumeration is the conventional one, reflected to a greater or lesser degree in the ratings cited earlier.

Attempts at greater objectivity or detachment were promoted in the SWOT analysis that was supposed to precede the City Development Strategies, the majority undertaken in Asia, and promoted by the World Bank and the Cities Alliance. Relatively few, in practice, had much in the way of economic analysis, although some provided useful sketches – Recife, Cali etc. Other city economic studies – the work of Emplasa on Sao Paulo, Johannesburg, Warsaw(USAID), Kingston Jamaica(USAID), Bogota, Kigali (USAID) – were important, but like the CDS studies, not anchored in a competitive context, showing in what sectors what competition occurred and in what respects. However, these exercises provided an unusual occasion for city economic analysis that generated important studies of particular cities.

In North America and Europe there have been many more academic and consultant attempts to rate the relative standing of cities – indeed, most major cities have, at some stage, undertaken such an exercise (and this is not just in developed countries – see McKinsey on Mumbai, 2003 and the associated work of Bombay First).

By way of example, we might consider the interesting 1991 “research study” of London (see LPAC, 1991) since it was of some methodological distinction and simplicity. The study combines the available statistical data and the subjective perceptions of chosen local and international observers. At the most general level, the study combines three summary measures – international trade and investment (wealth creation); jobs and incomes (an international labour market); and the quality of life (international cultural and social environment), all three sustained by an enabling stock of infrastructure. The competitors change according to the sector – thus in international finance, the competitors include New York, Paris, Tokyo, Frankfurt and Milan, but as a centre for music, only New York, Paris and Tokyo are seen as rivals. The study then proceeds through the three themes to assess London's relative standing, followed by an assessment of London's infrastructure, and projections into the future.

It is regrettable, as noted earlier, that patterns of city specialization and therefore interdependence rather than competitiveness are concealed by the method selected, but it was a sophisticated benchmark in such studies even though London is by no means prototypical of all or even some large cities. The exercise was an expensive one and rapidly out of date.

A quite different approach is provided by Kresl's study of Montreal (Kresl, 1994, 2002; Kresl and Singh, 1999). This is put in the competitive context of 40 US and 7 Canadian Metropolitan areas (1982-1992). The group is assessed against nine variables -

growth in per capita incomes;
research centres;
manufacturing value added;
growth in the proportion of firms employing more than 100 workers;
proportion of the labour force with more than undergraduate education;
share of engineers, accountants, research and managers in the labour force;
growth in the number of cultural institutions;
growth in the capital stock;
exports as a share of total output.

However, in the study of Montreal, three proxy measures are employed – manufacturing value added (as an indication of the growth in human and physical capital); growth in business services (as a measure of the economic transformation of the city); and retail sales (as a measure of the growth of local incomes and non-resident purchases).

The Economic and Social Research Council (of the UK) launched in 1996 a major research project on UK city competitiveness and social cohesion which covered much of the contemporary agenda on competitive cities (but without arriving at shared satisfactory definitions of either main concepts (cf. the evaluation of Harris and Townroe, 2003). The results were perhaps stronger in the sociological themes than the economic ones. But there were interesting summary studies of the major metropolitan regions (for example London, Bristol, Manchester, and a useful study of the comparative economic standing of Edinburgh and Glasgow – see Bailey et al., in Beggs(2002). One study examines 109 British cities in terms of changing size of population and of unemployment, to produce four prototypes of the changing structures of the city economies (see Begg Moore and Altunbas, in Beggs, 2002).

Elsewhere, in this thematic connection, Deas and Giordano (reported Beggs (2002) make a comparative assessment of a selection of cities in England by four quantitative measures of city competitive assets or inputs (economic, political, environmental and social) matched against four competitive outcomes (business creation and growth; per capita gross city product; office and industrial rentals; rates of unemployment). This results in a ranking order of competitiveness for the late 1990s.

Cellini (2000) undertook a comparative study of 46 European cities between the mid l970s and the present in terms of 15 sectors and Gross Value added per employed worker. He distinguishes differences arising from “structural effects” (the sectoral composition of output) and “competitive effects (variations in production within sectors). He concludes that city competitiveness turns on a city authority's ability to support city firms with complementary assets – infrastructure, qualified human capital, an innovative milieu and agglomeration economies.

* * * * *

The variety of ratings and the different compositions that underlie them illustrate both the diversity of purposes and audiences involved, and the different theories concerning the factors underlying a city's relative economic strength. Defining as precisely as we can the purpose of the rating thus becomes a vital first step.

Broadly, the rankings are concerned with putting together performance indicators to demonstrate cities as competing locations to live (quality of life), to do business, or to provide the promise of future high economic growth (the “new or learning economy” approach). However, indicators to show city managers the relative strengths and weaknesses of the bundle of activities that take place in their city are often concealed by these rankings. So far as city managers are concerned, they need to be able to identify what sectors are successful, relative to those sectors elsewhere (not necessarily located in cities), and what are lagging, and this cannot be achieved by single summary measures (where the universe is arbitrarily composed of a class of centres defined by local authority standing or size of population). Sectoral disaggregation may show a big city is not competing with another city but with a small town or a rural area.

The components of the larger city economy and the associated indicators are well known:

- finance and producer services centre;
- centre of many different types of manufacturing (including “future industries”);
- multi-modal transport junction – sea, air, road, rail;
- centre for communication and information;
- tourism centre;
- concentration of retail trade and markets;
- centre for higher education, research and development;
- centre for services in culture, medical care, sports etc.

This – no doubt with other additions – should cover the core of the city economy and its capacity to sell goods and services to markets outside the city, to generate the city's income.

In each of these sectors, performance indicators can be derived and matched to competing sectors in other cities or places, along with assessments of the capacity of associated infrastructure, the quality and cost of labour supply; and of negative externalities (congestion, pollution, crime and insecurity etc.). The purpose of these ratings is to guide city managers and citizens on the policy options facing the city, not to attract mobile factors of production to the city nor pursue many of the other aims noted in the earlier discussion.

IV. Local government and city competitiveness

Local government contributes to the competitive strength of city firms and facilitates the economic activity of citizens, thereby enhancing the incomes of city inhabitants. Insofar as city competitiveness is seen as measured by the well-being of its inhabitants, then efficient local government contributes directly to this. .

However, the contribution of government – as embodied in the attributes of particular places – is, like the positive externalities of localization or of agglomeration, stronger in conception than empirical demonstration. While there is now a wealth of literature on testing the efficiency of local government[xv], it is still not easy to translate publicly provided services into a net addition to the economic performance of firms. Intuitively, one assumes a well-managed city offers an advantage to firms operating there but quantifying with any precision the evidence that shows this, is beyond the existing sources.

In principle, one could estimate the economic impact of city services by identifying what compensatory payments would be incumbent on firms to provide if the city did not do so. This might be most practicable for what firm-level security expenses would be required if there were no city police force, but it would be an artificial exercise since firm-behavior in such circumstances cannot be reliably predicted (many firms might relocate to more secure environments rather than meet the extra costs). Comparable exercises have been undertaken in power – the costs of firm-generation of electricity to compensate for poor or intermittent public supply, and one could visualize similar exercises in water and sewerage. Compensatory costs incurred to make up for poor public education would also be feasible. However, there are other ways firms could offset such factors – in education, for example, by employing fewer workers or bringing adequately educated workers from elsewhere etc. In any case the data required do not exist and cannot therefore help assess the contribution of local government to city competitiveness at present.

Government, then, sometimes provides or organises the physical infrastructure (power, water, sewerage, transport terminals and highways) of the city without which firms could not operate. In some cases, that infrastructure is the precondition for firms operating at all – for example, as with airports and the tourist industry. The management of flows (goods, people, finance, vehicles through the major city junctions (air, water, road, rail) and markets, like the organisation of communications is of central strategic importance to the city economy. The supply of labour and its human capital (including immigration) may be publicly provided or supervised.

Government also manages the city, seeking to control, reverse or eliminate negative externalities, and organizes the territorial distribution of activity (through land use planning, zoning etc). The organisation, planning and regulation of "quarters", specialized localities, is an important public responsibility:

central business district;
"downtown" shopping and entertainment centres;
historic centres and archeological sites;
higher education localities;
medical services centres;
sports complexes etc.

The environment for these specialized activities may be economically important but not easily captured in the indicators of sectoral competitiveness.

In addition, public authorities initiate an immense variety of schemes to stimulate and sustain new enterprises, areas for "incubator industries", encourage clusters of similar activities, etc.. Usually, local government also promotes the city as a location for new businesses and, as we have seen, a desirable place to live.

Specifying – isolating - the economic impact of these different elements is, as noted above, difficult. Take for example, one of the best explored topics related to urban development, transport. In possibly the most comprehensive assessment of the economic impact of transport in the UK, SOCATRA (1999) a number of important effects are noted[xvi] without it being possible to give a consensus view on the overall effect of transport in urban development. As a later report notes, "it cannot be simply assumed that the impact of any transport investment in an area will be positive (or negative) in respect of city competitiveness"(Llewellyn Davies et al., 2004;see also Banister (1998) and Vickerman(1999).

Much data has been accumulated in developed countries in the cost-benefit/economic impact studies which often precede major new transport investment. The quality is not always sound and, as the earlier study (Llewellyn Davies, 2004) notes, describing the effects may mainly be an attempt to justify the investment rather than submit it to detached scrutiny. The methodologies employed here may not always be reliable. However, something might be salvaged from the better examples of these studies where they exist.

In addition to the provision of goods and services, local government may play a peculiar strategic role for the city as a whole, operating in the political sphere rather than the markets for city output. The capacity of city government to reshape the local economy is limited but it can respond helpfully or negatively as changing market demand for the city's output reshapes the city economy. There is considerable experience among the cities of Europe and north America in the field of local economic development, managing the decline of some industries, the rise of others, organizing the reuse or redevelopment of obsolete buildings and derelict land, the refurbishing of rundown neighborhoods or former economic assets (the transformation of inner city port areas[xvii] is a well-known example) to endow the city with economic activity to replace what has been lost.

City development is highly political and as a result, elected city leaders (like their national counterparts) often protect themselves against rigorous evaluation since reputation is all in politics and easily damaged. Cities proclaim their successes without testing the full economic costs involved and what opportunities were lost as the result of pursuing the success. As a result, we lack robust evidence both on full costs and on how far successes can be replicated in other places.

Some of these elements of local economic development may be embodied in a strategic vision for the city. The specific economic impact of this role of city government is difficult to specify in concrete terms and often turns less on the systemic impact of city government, more on the particular qualities of urban leadership in unique political contexts, its capacity to build effective political coalitions on a consensus of what needs to be done and to implement an urban development strategy.

However, at an anecdotal level, one can see, for example, what appears to be the dramatic effect on Barcelona of its bid to host the 1992 Olympic Games, an achievement secured by high order political influence rather than economic competitiveness. In many ways, bidding for such an event and reorganizing the city and its infrastructure to host it, is emblematic of the modern strategic role of urban leadership. The formulation of a city development plan – for example, Mayor Blumberg's 2006 25-year plan to upgrade New York city - may play a similar role (it is interesting that the phases of the city's development are identified with a series of mayors – Fiorella LaGuardia; Robert Moses; Rudy Giuliani). Such initiatives go well beyond the interests of existing city firms and constitute *par excellence* the competitive city as opposed to its firms. Indeed, few firms of New York today will still be operational in 25 years,

V. Four Latin American Cities.

1. Sectors of public provision

In the proposed study of four Latin American cities, three sectors of public provision have been selected to assess their impact on city competitiveness – public safety, transportation and housing (including land and office development).

The contribution of selected sectors of public provision to city competitiveness

(a) Undoubtedly, t**ransportation** is fundamental in the generation of city income, even if it is difficult to demonstrate this with rigor. In an important sense, a city *is* a junction in flows, an organization of mobility – into and out of the city and in internal circulation. The development of a global economy – with long distance supply chains connecting geographically remote areas of economic specialization – immensely enhances this role of the city. Thus the income of the city and its inhabitants as well as its competitiveness, depends – and increasingly so – on movement, internal and external.

However, while major components of transport infrastructure – air ports, for example – receive most attention, economically more important is the basic traffic management of junctions and of the urban area. Indeed, traffic management can perhaps be seen as the supreme test of the effectiveness of urban management; ineffectiveness is shown in the extraordinary damage inflicted on the national and local economies in road congestion and air pollution: in time lost for vehicles in rush hour traffic, for trucks entering or leaving port areas, wholesale markets or airport freight-loading sites etc.

Furthermore, a major part of the city economy is concerned with the provision of services to the inhabitants, to out-of-town consumers, to tourists - in the retail trades, in professional and producer services, in educational, medical, cultural services, in sport etc. These are major employers in many cities, and just as buyers need to be carried from where they are living to the selling point, so workers need to get to where they serve buyers. Thus, the management of vehicle flows, of road junctions, of parking, all bear on the costs of business and inhabitants living and working in cities. The greater the physical spread of the city, the result of particular natural configurations, of land pricing and planning policy, the higher the costs may be. Thus, obstruction to the traffic flows can have rapid and severe negative economic effects on much wider areas than simply the route affected.

With Just-in-Time stock policies, the problems are exaggerated – the delivery of goods on time to factories, markets and shops becomes the precondition for economic activity. Managing the arrival of freight and its distribution, the flows to storage or warehousing, to wholesale markets, delivery to shops or factories, thus underpins the efficiency of the economy.

The systematic evidence is sparse, but the costs of movement in urban areas can, it seems, eliminate or radically reduce any price advantage in city production – directly undermining the competitiveness of the city and its firms.

(b). Whereas city firms and workers can usually only with difficulty protect themselves against the high costs of movement in and around the city, in the provision of **security,** this is not the case. Given that firms and localities can protect themselves with private security services, security could not be so fundamental to the city economy.

In the higher income localities and periurban shopping malls, in central business districts, downtown areas and modern industrial estates or parks, security is usually good since it is a precondition of the activity concerned taking place[xviii].

The burden of poor security thus tends to fall on poorer localities, areas with a high concentration of small and medium enterprises and statistically unrecorded activity (“informal”). In the worst cases, whole localities become disconnected from the city proper, subject to progressive deterioration of services, dereliction of the physical fabric and abandonment of the locality to illegal activities – handling stolen goods, narcotics, prostitution – and the rule of gangs. A corrupt police force only adds another dimension to, if we can use the phrase, the collapse of social capital.

However, in the short term, while this is a major loss of assets to the city, it may not affect significantly the generation of city income or the city's competitiveness. In the mid-1970s, some major US cities were severely affected by urban violence in inner city neighborhoods (New York, Detroit, Los Angeles) but the quantitative effect of this on the city economies concerned does not appear significant. As with Johannesburg in the 1990s, neither the core economic functions of the city nor its upper income residential neighborhoods seem to have been significantly affected. Private expenditure – and slightly higher costs – offset poor security.

The losses to the city and the poorer inhabitants may be of greater significance than the effect on current activity. However, in the medium term, the growth of criminal activities can undermine the formal economy, for example, by distorting the land and property development markets as illicitly gained funds are laundered into the white economy (as occurs in Mumbai); increasing the lack of transparency in city transactions; corrupting the police and city authorities and undermining the integrity of the political and judicial order (there are striking and well-known examples here from the United States in the role of the Mafia in Chicago, New York etc). These are factors which may indeed affect a city's competitive standing.

(c).Housing is of fundamental importance to the inhabitants of the city and the failure of housing markets is everywhere grimly apparent in cities of developing countries. High housing costs and limited formal supply encourage illegal settlement and possibly the uncontrolled spread of the built up area, thus subsequently incurring high costs in the extension of municipal services.

The social and political importance of housing is reflected in the relative abundance of data on housing availability and quality. Furthermore, housing and construction are major industries in urban areas and therefore necessarily affect the generation of city income and hence city competitiveness.

However, systematic evidence does not seem to be available on the degree to which high housing, land or property development costs significantly affect the the city's competitive position or the creation of new firms. The costs of business start ups must be higher and high business costs may encourage relocation to cheaper locations (or attempts to release the value of existing inner city locations); labour costs may be higher (or the costs of commuting to areas of lower housing costs). However, there is little evidence of the magnitude of these factors, relative to other costs of economic activity and the benefits of a particular location. When firms or inhabitants relocate away from cities, there are usually a variety of costs and other factors involved and it would be difficult to isolate the effects of housing or office development in this.

2) Government contribution.

Of the four cities chosen for research – Sao Paulo, Bogota, San Salvador and Santiago de Chile – three are national capitals and one the capital of a federal State. The economies of each will therefore contain a larger or smaller share of publicly-funded activity, that is activity financed from the rest of the country or State and outside the market framework of the city economy proper. In terms of the economic competitiveness of the city, this constitutes a kind of subsidy to the city concerned and one which would clearly strengthen its position in relation to competing cities lacking this advantage.

6. Conclusions

Measures of economic competitiveness are attempts to capture the *relative* economic strength of a city economy. However, the concept itself of a territorially bounded economy is of growing imprecision – the dynamism of the economy and population distribution defy the precision of local government boundaries. Mapping the economic activity or population linked to the city is expensive and invariably out-of-date. City managers are perforce obliged to narrow their attention to the economic activity that takes place within or around the city or metropolitan boundaries.

Furthermore, there are many different perspectives on what constitutes city "economic strength" - from the existing composition of output to an hypothesized future composition, to the incomes and prosperity of the resident – or the working – population of the city. The productivity of the employed labour force (gross value added per employed worker) is often seen as the best measure of the city's "economic strength" but there are severe problems in obtaining such data at the city level, and it is not clear why economic strength should not also include externally generated income (profits, dividends, royalties, worker remittances, received by the city). Given those qualifications, per capita income, even if clumsy, may be the easiest measure of economic strength, the aggregate and non-analytical benchmark against which other cities may be measured.

It has been the argument of this account that the general aggregative measures of city competitiveness may be useful in some specific contexts (for example, in the best offshoring locations or the best places to do business), but they are less helpful in guiding city managers in identifying the strengths and weaknesses of the existing economy or its future potential nor in drawing more precise conclusions about the relative standing of different cities.

In sum, the most useful method (in public policy terms) of identifying competitiveness is not at the city level, but in terms of the sectors of city economic activity, particularly those sectors meeting external demand.

a) **Measures of city competitiveness:**

:

(i) **Sectors of tradeable goods and services.** These will vary according to the city concerned, but a possible check-list was given earlier:

financial and producer services (including offshored services); different types of manufacturing; tourism; retail and wholesale trade; medical services; culture and sport;higher education, research and development (including links to business) etc.

Some sub sectors may be too small to be recorded at the level of statistical records (or they may be unregistered or informal) – for example, software programming or biotechnology –

but of great significance for the future economy. It is important they be noted[xix] even if without precise data.

(ii) **City-wide strategic functions**. –
(a) transport junctions – airports, sea and river ports, rail and road junctions, including management of feeder systems, traffic management.
(b) telecommunications and other external connectivity (including the human capital available to utilize these facilities);
(c) the renovation/management of specialized quarters (central business districts, tourism zones etc);
(d)a diversity of issues ranging from city promotion and efforts to attract to the city, and accommodate major events (festivals, sports, business conferences etc), to creating and implementing a strategic vision of the future of the city.

(iii) In addition, we need measures of the human inputs to the city, best captured by indices of the quality of life and human capital (or accessible to the city through commuting, inmigration or immigration).

(iv) Negative externalilities can be included in each of the sectors, but it might be useful to have a summary index of city problems – economic security (churning in the economy); levels of poverty and social exclusion, urban dereliction; environmental quality and green space; crime levels; congestion etc.

b)**Benchmarks**

The class of competitors defines the universe of benchmarks against which any particular city should measure its performance. The membership of the class will vary with the sector or activity, some being geographically specific (for example, the largest airport in Brazil or Latin America), some global (for example, the medical centre with the highest success rate in the world; the largest centre of offshore services etc.).

As mentioned earlier, product differentiation makes the identification of competing sectors or subsectors often difficult. The sector data may conceal finer specializations which constitute collaboration (so that city A's output depends on inputs from city B) rather than competition.

However, to assemble the data on comparative performance – even if they exist – is well beyond the capacity of the current project, even though in many cities, city managers or chambers of commerce may well have working fragments of knowledge of competitors to assess local performance (as, for example, in Mumbai, businessmen are aware of the rate of opening of new container terminals in Singapore as a measure of Mumbai's port capacity; in Bogota, people are aware of the performance of competing centres of floriculture in Central America, the Netherlands, Egypt etc).

One could simplify the question radically by simply taking the best performance in the world in the sector, activity or city. This would have the merit of setting the standard of performance as high as possible, but might be most unfair since it leaves out of account radical differences in starting points (different endowments and circumstances) as well as changing contexts and opportunities.

Perhaps, more realistically – given the data availability – one should begin by taking the average for sectors or activities in cities of a given class within the same country or region, while bearing in mind that in a globalised economy, this may be taking a relatively low standard and exposing the city in the future to insupportable external competition.

However, all this assumes the relatively easy availability of the relevant information and this is rarely so. A rather more less systematic approach may be required in practice – first establishing what data is available and then seeking to employ it to illustrate relative competitivene

Notes:

i Of course, where local authorities fail to meet their – usually statutory – obligations, private agencies may offer alternative supply, but this is an extraordinary occurrence, outside the normal constitutional framework

ii In the 1960s and 1970s, a similar exercise – treating the city as a firm – was popular in the attempt to identify an optimal size of city. Here not only was the output of the city difficult to specify, the size of the city was unclear. Most people working on the question took the size of population to be the size of the city (as if one took the size of residential population within the premises of the firm to measure its size, not its employment, capital stock, sales or turnover). In practice, the discussion was inconclusive, reduced to the search for optimal public services for settlements of particular population size – for one of the better studies, see Stanford Research Institute (1968). For an exposition on the search for point of balance between increasing returns to urban scale and increasing diseconomies, see Flatters, Henderson and Mieszkowski (1974) and Stiglitz (1977).

iii "urban areas tend to grow through outward expansion at progressively lower densities, meaning that the size of a metropolitan region in square kilometers is increasing faster than its population"(OECD, 2006:30) Kitson et al (2004) notes that in such circumstances "policies are pursued on the basis of predetermined administrative or political areas that may have little meaning as economically functioning units".

iv The European Union has created the concept of "Larger Urban Zones" to encompass movement areas – see Appendix I, OECD 2006: 245-249

v See the varied picture in the OECD group – Cities as engines of economic growth?, OECD, 2006: 63-76.

vi "a received wisdom (is that socially cohesive places are) likely to be more competitive, but firm evidence is conspicuously hard to find" (Begg, 2002:317)

vii We have omitted discussion of some of the better-known ranking systems because they are well-known – thus, the World Bank Doing Business indicators; EIU Liveability ranking/Business trip index etc

viii See William Lever: The knowledge base and the competitive city, in Beggs(2002); and DTI (1998)

ix Although not applied to cities, relevant here is the World Bank Knowledge Assessment Methodology (2006) or KAM. Variables are grouped in four "knowledge economy pillars" - economic incentives and institutional regime; ; education; inovation; and information and communication technology, to create a knowledge economy index – see Chen and Dahman, 2005.

x A change – in city economies - identified by the Progressive Policy institute as "equivalent in scope and depth to the rise of the manufacturing economy in the 1890s or the emergence of the mass production corporate economy of the 1940s and 1950s" and marked by "a reorganization of firms, more efficient and dynamic capital markets, more economic "churning" and entrepreneurial dynamism, globalisation, greater competition and more volatile labour markets"

xi This is explicit in the New Economy index where the authors comment that:
"as more of the economy is conducted digitally, old patterns of location, based upon minimizing distance and maximizing communication become less important. The discriminating factor determining success is increasingly whether professionals want to live in a place, suggesting that 'natural resources', such as a good climate or outdoor recreation will become more important than the 'natural resources' that built the Industrial Revolution. As a result, the nation's largest metropolitan areas can no longer take it for granted that they will be the natural home for most economic activity. To succeed, they will need to ensure that people enjoy living and working there" (REF?)
See also, "the added value and productivity of service activities are less dependent on physical space, and these sectors are less constrained in their choice of location. They are primarily driven by the availability of quantities of human labour, and in the case of high value added sectors [finance, advertising, insurance, arts, consulting, NH] educated and skilled human capital" (OECD, 2006:60)

xii It is not self-evident in what respects the city workforce is or should be "heterogenous"to perform this useful economic role.

xiii On the interesting concentration of the foreign-born in the world's largest cities, see Prince and Benton-Short (2007).

xiv The variables include: taxes and fees; time required to deal with the bureaucracy; expenditure on entertainment and travel (a surrogate for corruption); time required for customs clearance in external trade; proportion of university educated staff in the workforce; losses due to power/transport problems.

xv See Suhas Paradekar: The efficiency of Brazilian Municipalities, in World Bank (2006).

xvi Changing the costs of movement; reorganizing/rationalizing production, distribution and land uses; extending the labour market and hence lowering costs; lowering the costs of production through making available lower cost inputs; stimulating inward investment; opening to development inaccessible sites stimulating further growth.;

xvii As with Baltimore, Cape Town, London Docklands, Yokohama, Sydney Darling Bay etc.

xviii . This is not intended to sound complacent. There are many examples of the complete breakdown of city economies under the impact of civil disorder – for example, civil war in Beirout, Sarajevo, Mogadishu, Baghdad etc. Even in relatively peaceful Brazil, the First Capital Command, a prisoner/gangster organization, is said to have precipitated over 1,000 violent incidents between May and Aug of 2006, leading to the deaths of 34 policemen, 11 prison guards and 123 civilians. However, while some cities were brought to a halt for a few days, the macro-economic effects are probably not detectable.

xix . Often City Councils, Chambers of Commerce and business associations know of such firms