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World Winning Cities – Paper 1

Introduction – City Competitiveness and Real Estate

Cities are the framework of society, and their continuing existence has become an unquestionable part of world order. They provide the canvas for most real estate market activities, and understanding the factors that have led to the success or failure of cities, is a vital part of the property process.

But, the nature of city competitiveness is changing rapidly. “Model” growth cycles in “model” world cities based on size, hierarchies, and economic wealth are being increasingly challenged by technology and by new thinking on what will constitute the winning urban dynamic in the 21st century. Emerging definitions of success are being based not on size but on connectivity, not on hierarchies but on networks, and less on wealth and more on environment, quality of life, culture, city governance and marketing.

And, competition between cities has never been more intense. City marketing is becoming a precise science and branding campaigns, trade missions, major infrastructure projects and the securing of prestige sporting and cultural events, are key ingredients of city strategies. The role of property as a contributor to, rather than as a consequence of competitive advantage is a vastly under researched area and one which we believe will become increasingly vital to any city intent on making its mark on the world stage.

Jones Lang LaSalle has therefore launched a major research programme “World Winning Cities”, representing a multi-year quest to identify the winning cities of the future. Our aim is to draw together the essence of contemporary city competitiveness, and to better understand the extent to which property can drive the new city order. We are focusing on the trends that will impact on the business and economic landscape, in order to predict which cities will be the rising urban stars of the next decade, and equally importantly those cities that may lose in the battle for world city status.

The objective of our project is to develop an innovative methodological approach that will allow us to deconstruct cities and to define and explore the newly emerging principles of city competition and how they relate to real estate. In essence our project is focussed on answering four fundamental questions:

- (i) What does history teach us about recent winners?
- (ii) Which indicators will be the best predictors of future success?
- (iii) Where are the next generation of rising urban stars?
- (iv) What will or could be real estates' contribution to a city's sustainable competitive advantage?

In this paper we contrast the results of our first phase analyses, addressing the lessons of history of winning cities over the period 1991 –2001, with the much wider questions about the model of world order that will prevail over the emergence of the next generation of urban rising stars.

Winning Cities of the Past Decade

Although the past is not necessarily the best predictor of the future, it does give a baseline position from which to describe the nature of likely future change. In phase one of the project, Jones Lang LaSalle took a look at city performance over the last 10 years. We needed to know which cities, from both a general economic and property market's viewpoint, have been the most successful in recent years. This analysis was undertaken to throw light on the likely "winning formulae" for future city success, and to set benchmarks against which to measure future city performance.

Jones Lang LaSalle analysed historic data covering 100 major metropolitan areas worldwide (see Appendix 1). These cities were selected on the basis of size, function and corporate representation¹, ensuring that the balance of cities in each continental region was broadly in line with each region's economic weight. We covered 40 cities in the Americas, 37 cities in the EMEA region and 23 cities in the Asia Pacific region

Annual data was analysed for the ten-year period, 1991-01, for 5 measures of city growth and real estate activity:

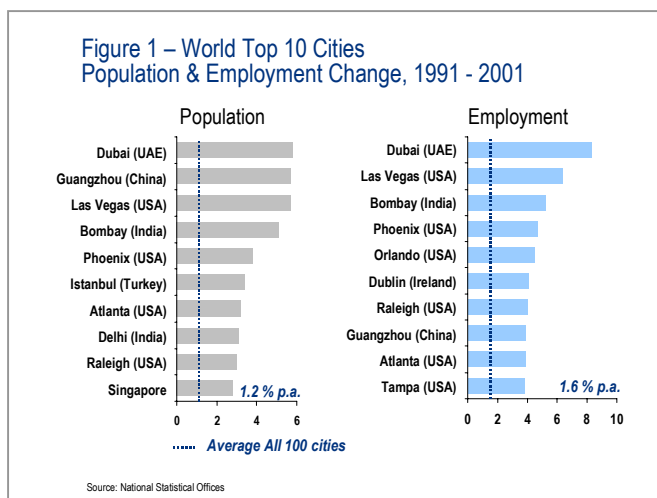
- Two Measures of City Growth:
 - Population Change (% per year)
 - Employment Change (% per year)
- Two Measures of Real Estate Activity:
 - Office Net Absorption Rate (as % stock per year)
 - Office Construction Rate (as % stock per year)
- One measure of Real Estate Performance:
 - Prime Office Rental Change (real, % per year)

This historic data was analysed to build up a picture of city performance over the past ten years. Our aim was to identify those cities that have created the right circumstances to stimulate strong city economic growth, high levels of real estate activity and strong real estate performance.

Which cities were the rising urban stars of the past decade?

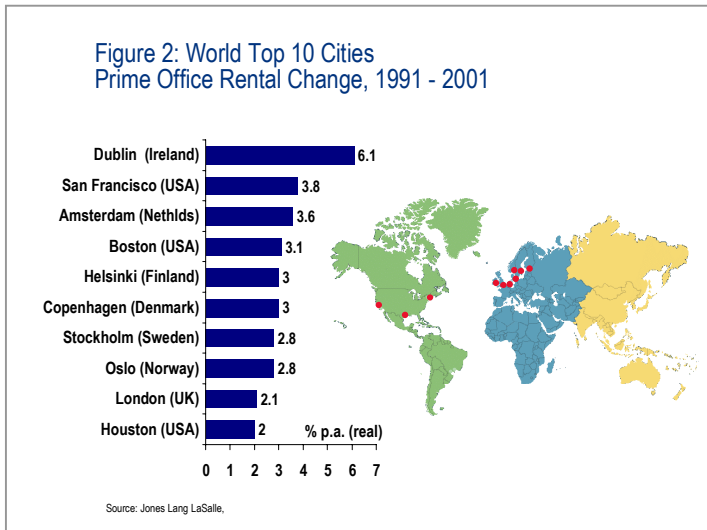
Our analysis of relative growth over last ten years shows that the strongest growth has been from smaller metropolitan areas of less than two million people.

Three cities stand out:



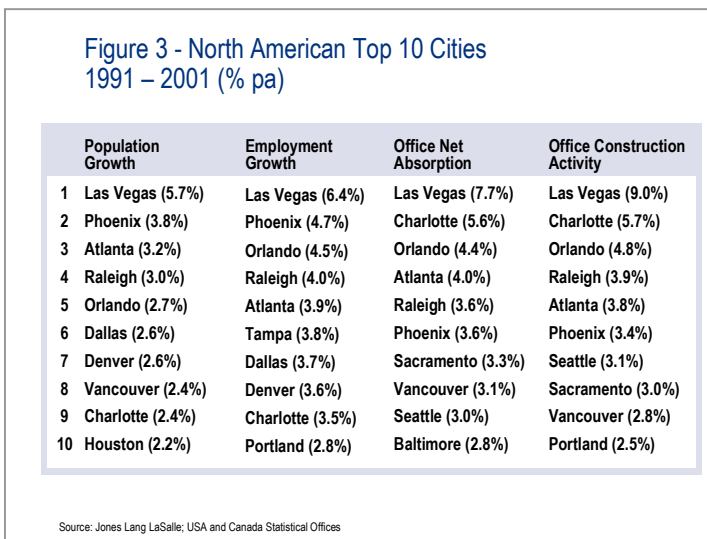
Dubai (in the United Arab Emirates) holds the top position worldwide for both population and employment growth, at 5.8% p.a. and 8.3% p.a. respectively (Figure 1). This rapidly expanding Emirate city-state has emerged over the past decade as a leading economic and trading hub of the Gulf States. Much of its success derives from a drive to create a favourable environment for business, and in providing the physical infrastructure to match. Dubai has been actively promoted on the international arena, and the city has been successful in attracting foreign companies. It has grown rapidly as a tourist destination, and is developing a high-tech image as an Internet hub city. However, the real estate market is still immature, and the building boom of recent years has translated into oversupply of office space.

1. Corporate Representation was derived from Loughborough University's GaWC database, which measure the significant presence of major banks, accountancy firms, law firms and advertising agencies.



Dublin (the “Celtic Tiger”) has emerged as probably the most successful city economy and real estate market of the last decade, and it is the only city to score consistently well on all five measures of performance. Strong employment growth (4.1% pa), and (by European standards) strong population growth (0.7% pa) translated into a very dynamic office market, characterised by high levels of take-up and high construction activity – the occupied office stock doubled in a decade. Dublin recorded the strongest real rental growth (at 6.1% pa) of the 100 cities analysed (Figure 2). The city’s growth owes much to the success of the Irish national economy in creating one of

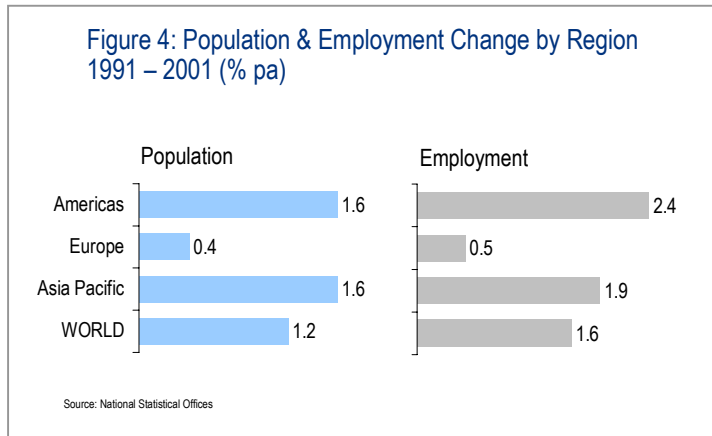
Europe’s most favourable business environments. Whilst external subsidy has been a factor, the economy’s success has been built on private investment. Dublin has captured a significant proportion of Ireland’s foreign direct investment (FDI), attracted by a favourable tax regime, low regulation, labour market flexibility and access to a well-educated labour force. IT software and financial services have been particularly active. Dublin is now Europe’s largest centre for the software industry, with five of the world’s leading top ten software companies have their European centre in Dublin.



Las Vegas has been North America’s fastest growing metropolitan area, and stands “head and shoulders” above the other North American cities in terms of population growth, employment growth, office net absorption and office construction rates (Figure 3). The city’s population has been growing by over 70,000 a year, and Las Vegas is now a city of 1.6 million people. Growth has been underpinned by a rapidly expanding leisure sector, but as the city has grown its economy has diversified, and low taxes and low regulation have succeeded in nurturing new business and attracting new companies and labour.

Why have these cities been winners? These cities have created a compelling cocktail of attractions that has stimulated strong economic growth, and all three share a number of common features:

- Size – with metropolitan area populations of 1.6 million in Las Vegas, 1.1 million in Dublin and 0.9 million in Dubai.
- Attractive business environments, light regulation and favourable tax regimes for business, which has led to high levels of inward investment.
- Strong in-migration and a successful record of attracting skilled and educated labour.
- Leisure – both Las Vegas and Dubai are underpinned by leisure activities, whilst Dublin has emerged as an important European short-stay tourist destination.
- Branding – All three cities have developed a high profile on the international “stage”.



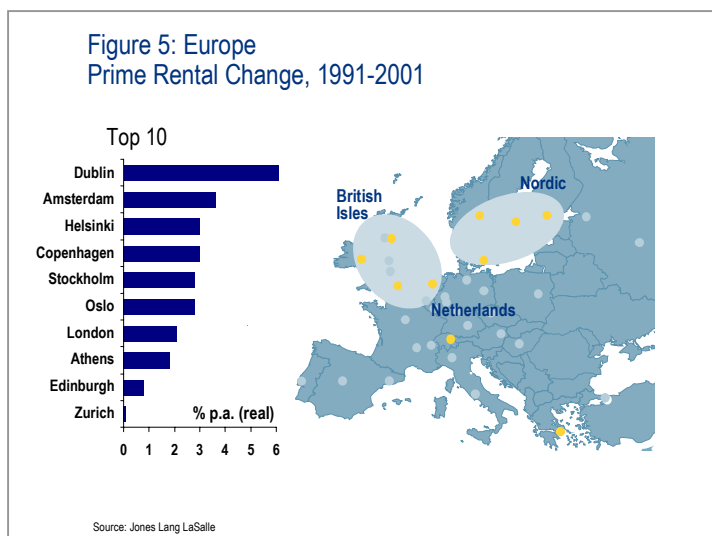
The top city “winners” are spread across the Globe (in Asia, Europe and America), but our analysis has identified significant differences in city growth between continental regions. Figure 4 shows average population and employment growth in cities in North America, Western Europe and Asia Pacific. North American cities have been the best generators of new employment; Asian cities have shown strong population growth, whilst European cities have shown the weakest growth in both population and employment terms.

However it is the ratios between these indicators that are one of the most revealing aspects of our analysis. It shows that the last decade was good for large cities with the rate of employment growth exceeding the growth in population by a ratio of 1.3 to 1. In Europe and Asia Pacific, on average cities generated 1.2 new jobs for every additional resident. In the Americas the ratio was a striking 1.5 to 1, with employment growth far outperforming population growth. So on this measure and as a broad regional generalization, the cities of North America were the biggest winners in the past decade.

The strength of the North American cities is also illustrated when looking at the geographical spread of “winning cities”. Our analysis shows that individual cities are linking together into clusters to provide sub regional eco systems of “winning cities”.

A number of clusters were identified from our analysis:

Southern USA – Whilst the North American continent as a whole has been a significant generator of new employment over the past decade, as Figure 3 shows it is in the metropolitan areas of Southern USA where growth has been strongest - in a band running from Nevada to Florida – and including the cities of **Las Vegas** (Nevada), **Phoenix** (Arizona), **Denver** (Colorado), **Dallas** (Texas), **Atlanta** (Georgia), **Raleigh** and **Charlotte** (North Carolina), and **Orlando** and **Tampa** (Florida). These nine metropolitan areas grew in population by an average rate of 3.1% pa, and have generated new employment at over 4.2% pa over the past decade.



Northern Europe – European cities have, in general, recorded relatively weak population, employment and absorption rates, although rental growth has been amongst the strongest worldwide (reflecting inherent supply constraints). Cities in Northern Europe embracing the Nordic countries, the British Isles and the Netherlands have been the strongest performers in the region (Figure 5):

The Nordic capitals (**Stockholm**, **Copenhagen**, **Oslo** and **Helsinki**) all recorded strong rental growth (amongst the highest worldwide), strong population immigration (from rural areas) and more latterly strong employment growth,

underpinned by IT. On almost every measure of technological progress, the Nordic region scores amongst the highest worldwide. This serves to highlight the emergence of the Nordic Region over the last decade as a major force in advanced telecommunications and IT, capitalising on a highly educated workforce and several world-class technology companies.

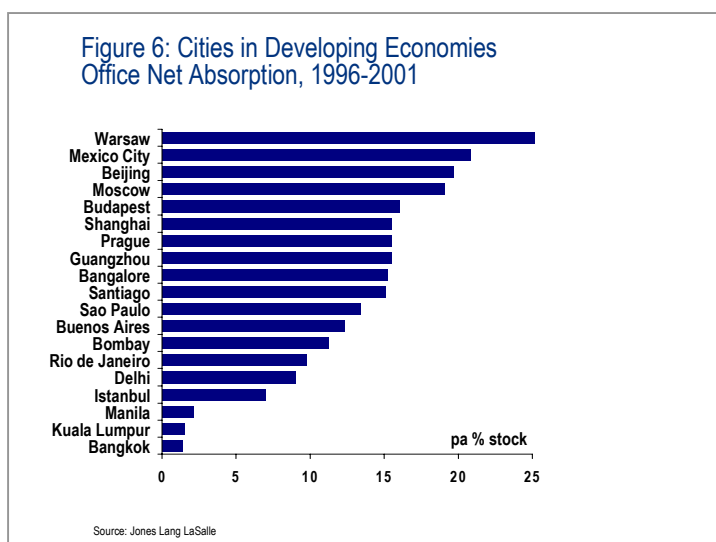
The main commercial centres in UK and Ireland (**London, Dublin** and **Edinburgh**) have also performed well on a number of measures. All three cities have recorded strong “employment-rich” growth, which has resulted in significant pressures on their commercial and residential property stocks.

Amsterdam, the main centre of the highly urbanised Randstad region has been particularly successful in attracting footloose companies from across Europe. The Netherlands is also considered to have one of the most favourable business operating environments worldwide, as well as being supported by an excellent transport and technological infrastructure,

Coastal/Southern China – The Asian cities, in general, have had a difficult decade, and the weak performance of most cities has been a legacy of the Asian financial crisis of the late 1990s. The notable exception is China, and coastal and southern China in particular. The changes that have taken place in the last decade in this region have been striking, and have been epitomised by Guangzhou, which has emerged in less than a decade into a fully functioning city:

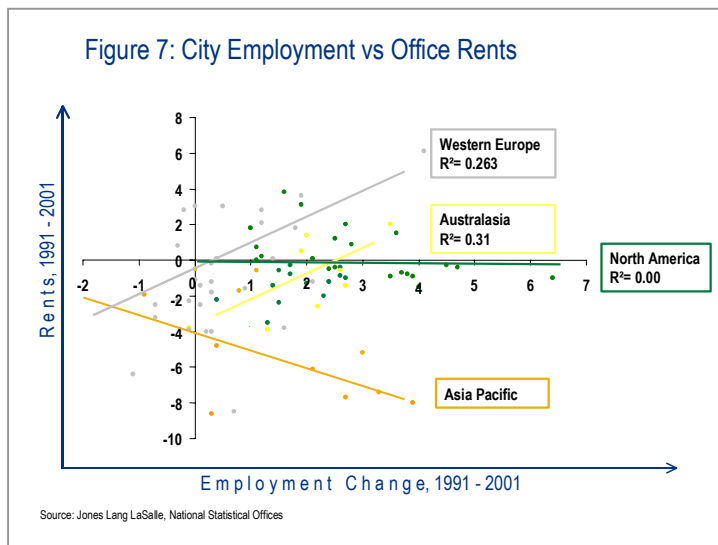
Guangzhou is at the apex of one of the fastest growing regions worldwide. Together with Hong Kong, Shenzhen and several smaller cities, the city forms part of the Pearl River Delta Mega City, (which has a combined regional population of more than 46 million people). The region has seen rapid urbanisation initially with illegal immigrants who have now been absorbed formally (leading to strong population and employment growth). The region accounts for 1/3rd of China’s FDI, which is in part a reflection of high cultural and economic links with Hong Kong and overseas Chinese. But, growth has come at great environmental cost. What was once a fertile agricultural region has been transformed into a sprawling industrial zone. In addition, the commercial real estate market was over-supplied for much of the 1990s, with the city going through an emerging market boom to bust in office rents, as new construction took place.

Guangzhou typifies the often patchy and contradictory evidence of “winning cities” within the developing economies. In most cases, “developing” cities have been characterised by strong population and employment growth, which have fed through to high rates of office market activity. However property speculation and over-supply have translated into sharp falls in rents in most of these cities over the past decade.



Our analysis showed that cities in China (**Beijing, Shanghai** and **Guangzhou**) and Central and Eastern Europe (**Warsaw, Moscow, Budapest** and **Prague**) were the most active markets in “developing” economies in terms of both net absorption (Figure 6) and construction activity. Other relatively active markets were **Mexico City, Santiago** (in Chile) and **Bangalore** (in India)

The cities in “developing” economies illustrate that a city’s economic performance is no guarantee of strong property performance. Our analysis shows a positive relationship between population change and employment change in most cities, feeding through to office net absorption and construction rates. However the link with property performance is tenuous. As Figure 7 overleaf shows, whilst there is some evidence of a positive relationship between city employment growth and real estate performance in Western Europe and Australasia, in North America any relationship is difficult to prove and in Asia there is a negative correlation. Guangzhou, for example, had one of the strongest population and employment growth rates worldwide, but has shown one of the sharpest falls in rents over the same period.



Winning Cities of the next decade

This analysis inevitably raises the question of how a “winning” city is measured, and it highlights that “winning” has different meanings for different stakeholders. For real estate investors, a “winning city” is usually defined narrowly in terms of real estate performance, determined not only by a strong city economy, but also critically, issues of real estate supply constraints and market liquidity. These supply-side and liquidity factors need to be built into any future model of city performance. Real estate investors also need to focus more on how the corporate sector defines a “winning city”, in order to identify cities ahead of the “curve”. For the corporate sector “winning” is increasingly based on finding the next high growth consumer market or low cost well-educated workforce, which tends to be in cities of as yet unproven economic track record – the Indian call centre phenomenon in cities such as Bangalore, Mumbai and Delhi is a classic case.

So are the next generation of rising urban stars yet on the corporate radar screen? Our analysis helps to throw light as to the likely characteristics of the future “winners”. The winning cities of the future may well exhibit light regulation, favourable tax regimes, labour market flexibility, high inward Investment, in-migration of skilled workers and leisure, but in what combinations, in what strengths, and with what other qualifiers?

Will the criteria for success change in the 21st Century. There are many agendas that may influence the future of cities and here we suggest a number of competing forces as to the future drivers of city form:

Aggregation Economists:

The aggregation economists believe that critical mass and grounded capital in real estate and infrastructure will enhance the value of centrality. The existing successful Global cities will grow and prosper, despite worsening congestion and security concerns. We analysed the performance of the world top ten cities as measured by corporate representation of high order services. The roll call of cities in the top 10 – New York, London, Paris, Tokyo, Chicago, Los Angeles, Frankfurt, Milan, Hong Kong and Singapore - has few surprises, as the inertia of size and the critical mass has helped to maintain their positions. However, what is particularly interesting is that whilst they get top scores for volume growth, these high-order cities have under-performed the worldwide average on all variables over the past decade, including real estate activity and performance (Figure 8).

The leading position of these cities is certainly not assured. The relationships and dynamic within and between these Global cities is becoming increasingly subject to competitive price pressures, to quality of life issues and, as are many places, to skill shortages. As we get richer so the balance between income and opportunity and health, culture and leisure pursuits becomes more important. Their desire to achieve cultural success will change the nature of their occupier and investment profile.

Looking forward, it would be easy to be still influenced by size. The rapid growth in urbanisation has given rise to “mega cities”, with populations of more than 10 million people. In 1950 there was only one city with a population of 10 million or more – New York. Now there are 16 cities, and by 2015 (according to the United Nations) there

will be 21 cities. With three-quarters of the mega cities in the developing world, most are not currently even on the corporate or investor radar screen, but they will offer considerable opportunities in the future for global companies from their potential consumer base and abundant labour supply.

Figure 8: City Performance

1991 – 2001 % p.a.	Top 10 Corporate Cities	All Cities
Population Change	0.9%	1.2%
Employment Change	1.0%	1.6%
Office Net Absorption	2.7%	3.3%
Office Construction	1.9%	4.3%
Prime Rental Change	-2.4%	-1.6%

Top 10 Corporate Cities – Chicago, Frankfurt, Hong Kong, London, Los Angeles, Milan, New York, Paris, Singapore, Tokyo
Source: Jones Lang LaSalle, University of Loughborough, GaWC database, National Statistical Offices

Digital Economists:

The digital economists conversely believe that communications technology will significantly dilute the need for centralised physical proximity, and commercial activity will disperse and decentralise into science parks, “silicon valleys” and informed communities. Perversely however, the consequence of improved communications technologies will be an increased need for face-to-face meetings, with cities playing an even more crucial role as host for these activities.

Over the past decade we have seen the emergence of “technology-rich” cities in North America, such as San Francisco/Silicon Valley, Boston, Seattle, San Diego, Raleigh-Durham, Minneapolis, Dallas and Austin. In Northern Europe, a similar trend has emerged, led by the Nordic cities – Stockholm, Helsinki and Copenhagen, but also characterising London/Thames Valley/Cambridge and Munich. In the advanced economies of Asia – Tokyo, Osaka, Seoul, Singapore and Taipei all have well developed technology sectors.

“Evolution Leapfrogger” Theorists:

The ability to innovate will play a key role in the continued development of technology-rich cities, and the World’s existing technology clusters have a good head start. But significantly, a number of cities in developing and transition economies have strong innovation bases. Tel Aviv is one of the best examples, but Moscow, Beijing and even Tehran all have well educated populations, high levels of R&D expenditure, and large number of researchers and science graduates, which combined with the appropriate communications infrastructure and business environment could potentially propel them to economic lift-off.

“Evolution Leapfroggers” believe that cities in developing and transition countries will use technology to leap frog the conventional requirements of physical transport and communications infrastructure to create a new breed of competitive city. Where the major IT multi-nationals place their manufacturing and R&D facilities can often provide the catalyst for technology-led growth. For example, in 1989 Intel’s choice of Greater Dublin for its largest manufacturing plant outside the USA, was a contributory factor to the growth of the IT sector in Dublin during the 1990s. We are seeing the same happening in San Jose in Costa Rica, which was chosen in 1996 for Intel’s main microchip plant in Latin America, and most recently in 2000 the opening of a major software development centre by Intel in Nizhni Novgorod (Russia’s third largest city, formerly known as Gorki) could impact on this city in the same way.

But what will drive the performance of cities in an era where technology is abundant but where skills are in short supply? Cities in some developing economies have a competitive advantage in this respect. India, for example has developed a degree of originality in the fields of technology and intellectual research, and at the same time

has an abundance of low cost skilled IT-trained manpower. As a result, cities such as Mumbai (Bombay), Delhi, Bangalore (the Silicon Valley of India), Hyderabad and Chennai have been successful in recent years in attracting IT and contact centre activities.

Post capitalist Economists:

Finally, the post capitalist view may be that the western model of globalisation and growth is unsustainable, and that commerce will revert to local growth and local control, and therefore fragmenting property markets. The issue of sustainable development has been brought into sharp relief by the Johannesburg World Summit 2002, and many developing countries, most recently in Latin America, are questioning the free-market model of economic development, while a number of Northern European cities (such as Helsinki, Stockholm and Copenhagen) have actively promoted, and are trying hard to deliver, the advantages of social and environmental sustainability.

Our analysis and its results, so far have been unashamedly economically based. Economic prosperity has been the understandable mainstay in a city's armoury in attracting investors and occupiers, but the property sector should be questioning the traditional one-dimensional assumptions about success. A new class of city may emerge encouraged by a different set of drivers where wealth and economics are a consequence rather than a pure objective of growth.

Next Steps of "World Winning Cities" Project

It is likely that the different theories of urban development will not be mutually exclusive, and understanding the new evolutionary models for different cities in different countries is crucial to optimising location and investment decisions. Understanding the role of property to a city's future becomes even more important.

Jones Lang LaSalle is currently building a proprietary database of Key Performance Indicators to provide the context for forward-looking analysis. We are testing the predictive abilities of many different clusters of measures. We are looking to reveal new relationships between indicators that are critical to a city's success - new insights for the real estate investor, occupier or developer – reflective not just of a one-dimensional western model of city growth, but of the richness of factors that drive urban dynamics across the world. So we can capture the essence of success for world cities, which fully acknowledge their diverse stakeholder interests and their different development objectives.

The "World Winning Cities" project will develop a new set of metrics, benchmarks and analytical tools to allow us to:

- Describe and map future changes in city fortunes
- Model and predict the next generation of rising stars and their promotion to the world city stage
- Predict the inevitable relegations that will occur for some cities.
- Analyse the consequences for real estate markets of changing city fortunes and to predict them ahead of the curve.

Our search for the essence of competitiveness is routing us away from the traditional city, with its steady, reasonably predictable markets, to the fast vibrant, technology rich city of the future where urbanisation and information go hand in hand to create new city forms and functions. And from which we may all be surprised about the future identity of at least some of the World's "winning cities" of the 21st Century.

Appendix 1 – City Coverage

Americas

1	Atlanta
2	Baltimore
3	Boston
4	Charlotte
5	Chicago
6	Cincinnati
7	Cleveland
8	Dallas
9	Denver
10	Detroit
11	Houston
12	Indianapolis
13	Kansas City
14	Las Vegas
15	Los Angeles
16	Miami
17	Milwaukee
18	Minneapolis
19	Montreal
20	New York
21	Orlando
22	Philadelphia
23	Phoenix
24	Pittsburgh
25	Portland
26	Raleigh
27	Sacramento
28	St Louis
29	San Diego
30	San Francisco
31	Seattle
32	Tampa
33	Toronto
34	Vancouver
35	Washington DC
36	Buenos Aires
37	Mexico City
38	Rio de Janeiro
39	Santiago
40	Sao Paulo

Asia-Pacific

41	Bangalore
42	Bangkok
43	Beijing
44	Delhi
45	Guangzhou
46	Hong Kong
47	Kuala Lumpur
48	Manila
49	Mumbai/Bombay
50	Osaka-Kobe
51	Seoul
52	Shanghai
53	Singapore
54	Taipei
55	Tokyo
56	Adelaide
57	Auckland
58	Brisbane
59	Canberra City
60	Melbourne
61	Perth
62	Sydney
63	Wellington

Europe, Middle East and Africa

64	Amsterdam
65	Athens
66	Barcelona
67	Berlin
68	Birmingham
69	Brussels
70	Cologne
71	Copenhagen
72	Dublin
73	Dusseldorf-Ruhr
74	Edinburgh
75	Frankfurt am Main
76	Geneva
77	Glasgow
78	Hamburg
79	Helsinki
80	Istanbul
81	Lisbon
82	London
83	Luxembourg
84	Lyon
85	Madrid
86	Manchester
87	Milan
88	Munich
89	Oslo
90	Paris
91	Rome
92	Stockholm
93	Vienna
94	Zurich
95	Budapest
96	Moscow
97	Prague
98	Saint Petersburg
99	Warsaw
100	Dubai