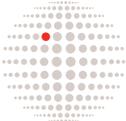


Cities of opportunity: Business-readiness indicators for the 21st century

Atlanta
Chicago
Frankfurt
London
Los Angeles

New York
Paris
Shanghai
Singapore
Tokyo
Toronto

cost
financial clout
safety and security
capital markets
consumers
culture and diversity
geographic location
resources
density of population
work force



While cities of opportunity share many characteristics, they are first and foremost global cities—that is, centers of global commerce. The reason

is simple. Globalization is a juggernaut that will not be stopped.



What characteristics define business readiness among global cities? Which cities are recognized not only as global centers of commerce and investment but also as magnets that attract companies engaging in global trade? For *Cities of Opportunity: Business-Readiness Indicators for the 21st Century*, PricewaterhouseCoopers and the Partnership for New York City set out to find answers to those questions.

Using 9 indicators and 32 variables to measure business readiness, we examined 11 cities. Predictably, early beneficiaries of globalization such as London, New York, Paris, and Tokyo were obvious leaders.

Surprisingly, so-called emerging cities such as Shanghai and Singapore and cities just taking their place on the world stage such as Atlanta and Toronto pose serious challenges to the reigning global powerhouses. The findings were loud and clear: while the established leaders continue to make a strong showing, virtually every city can demonstrate leadership in at least one variable and, at times, in more than one.

World-class businesses working to meet the challenges of a new century are discovering more of a level playing field. This leveling is just beginning to affect the rankings of the cities that will host these businesses and the people they employ.

We believe this is important news all around. For established cities, the findings should strike a cautionary note that the competition is at their heels. For cities on the move, there are opportunities to learn important lessons from their established counterparts. For businesses, the report suggests that a longer list of business-ready cities might be available for consideration.

In preparing this report, we intentionally avoided so-called old economy economic indicators and selected indicators and variables that better reflect what it takes to succeed in a vibrant knowledge economy. Our goal is to share and foster a new way of thinking about what characterizes business readiness in the 21st century and to initiate a discussion among business leaders and emerging communities.



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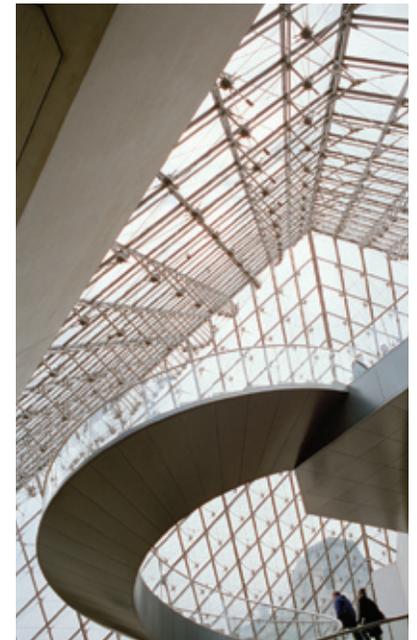
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From the global city to the city of opportunity

While cities of opportunity share many characteristics, they are first and foremost global cities—that is, centers of global commerce. The reason is simple. Globalization is a juggernaut that will not be stopped. In PricewaterhouseCoopers' *9th Annual Global CEO Survey*, 58 percent of respondents said globalization would have a somewhat positive or very positive impact on their organizations over the next year. However, when opinion on that impact is extended out over three years, the number increases to 63 percent. What explains this increasing urge to globalize? Historically, the explanation was found in a desire to reduce costs. However, most of the CEOs responding to the survey indicated that in globalizing, cost cutting was not their primary motivation. Rather, the CEOs viewed globalization as a way to attract new customers and to serve existing customers¹—objectives that require business readiness.



As globalization continues to gain traction, most major cities want to be prepared to attract an influx of business. In short, they must be cities of opportunity. But which cities qualify? There are as many answers to that question as there are pundits to tackle it. A century ago, Western cities (and those cities that emulated them) would have led the race. Today, these cities are competing with rapidly growing cities in Asia and other parts of the emerging world.²

But, of course, geography alone does not define the global city. Nor does it adequately characterize the business-ready city of opportunity. Cities of opportunity share certain characteristics, and those characteristics, too, vary considerably, depending on who is proffering the definition and when. At the beginning of the 20th century, conventional indicators such as port capacity and manufacturing capabilities would have been used to define cities of opportunity. While still significant, such indicators have given way in the 21st century to technological factors such as broadband availability and telecom infrastructure and to cultural characteristics such as diversity. These changes suggest that in addition to being a global city in the conventional sense, a city of opportunity in the 21st century must offer more. But what? PricewaterhouseCoopers and the Partnership for New York City undertook this study to find answers to that fundamental question.

The requirements and features of 21st-century cities of opportunity have changed—and will continue to change—in areas that impact new economy competitiveness and attractiveness: areas ranging from intellectual capital and transportation assets to such fundamental requirements as safety and security. Therefore, by examining 11 major cities through the lens of 9 key business-readiness indicators and 32 variables that more distinctly characterize them, we hoped to discover which global cities offered the best opportunities to do business and to increase business in today's vibrant knowledge economy. This report presents our findings—findings that we hope will initiate a new dialogue that reflects a fresh way of thinking about cities of opportunity in the 21st century.

Footnotes:

1 *9th Annual Global CEO Survey—Globalization and Complexity: Inevitable Forces in a Changing Economy*. PricewaterhouseCoopers, 2006.

2 Global Cities 2006: An Interdisciplinary Conference. June 29–30, 2006. A description of the conference can be found at <http://hopelive.hope.ac.uk/mahumanities/GolbalCities/index.htm> [sic].

A new approach for a new century

The cities we included in this study—Atlanta, Chicago, Frankfurt, London, Los Angeles, New York, Paris, Shanghai, Singapore, Tokyo, and Toronto—are, by anyone’s reckoning, global cities. Each is a center of commerce and finance, and each is a magnet for companies wishing to engage in global trade. As well, each has its share of corporate headquarters. In addition, as will become clear as this report unfolds, each city offers distinct advantages for doing business in a global economy.

However, our selection of cities *is not* what sets this report apart. Our selection of indicators and variables *is*. While based in part on surveys conducted by the Partnership for New York City, our choice of indicators was guided by a desire to move away from old economy economic indicators and toward those factors that indicate business readiness in a knowledge economy. Of course, cost is an important indicator. But is it any more important than intellectual capital, technology IQ and innovation, transportation assets, demographic advantages, financial clout, lifestyle assets, safety and security, and ease of doing business?

The media and academic journals are full of studies that compare cities on the basis of the cost of doing business, reflexively rewarding low-cost locations with higher rankings. In contrast, our report focuses on cities of opportunity that have emerged as serious competition for major market agglomerations of commercial activity in the global economy. This focus requires consideration of indicators that go beyond cost and provide a more broad-based picture of what drives business location decisions in the 21st century.



Examining the findings: Ranking the cities of opportunity

When we began this study, we were, quite frankly, unsure of what we would find. Would historical assumptions be reinforced? Would one city dominate in key indicators? Would any cities unexpectedly rise to the fore in indicators that could not have been anticipated?

The answers to these questions are both yes and no. It is no surprise, for example, that New York dominates the financial clout indicator; nor is the fact that Tokyo takes the lead in technology IQ and innovation an unexpected result. But some results were surprising—among them that Frankfurt tops the list in terms of safety and security and that Atlanta dominates the cost indicator.

We were also somewhat surprised by a number of interesting correlations or the lack thereof. For example, the data indicate that the lack of a physical stock exchange does not necessarily lock a city out of performing well on the financial clout indicator and that passenger flows into and out of a city do not necessarily correlate with the presence of many airlines. Nor does it appear that a city's investment in its high-tech services sector is the only and least costly way to improve its score in technology IQ and innovation.

In addition, considering the influx of global business that Shanghai is attracting, its market potential, and its potential for growth, we were a bit surprised the city did not score higher overall. However, a number of factors explain why. First, while Shanghai's prospects are overwhelmingly positive, the city is just beginning its journey on the path to being a global city of opportunity. It is not surprising that when measured against current global powerhouses, Shanghai cannot yet hold its own. However, were it to be ranked against other cities that are comparable in terms of their stage of development, it is likely that Shanghai would do very well indeed. Moreover, if we measured growth over time, Shanghai would rise in rank. Therefore, any future editions of this report will likely provide a clearer picture of Shanghai's level of opportunity.



Finally, we were heartened to find that while marketplace factors drive results for most of the indicators, public policy also seems to play an important role. For example, London's commitment to improving its transportation infrastructure seems to correlate with its relatively high rank within the transportation assets indicator. And New York's equally fervent commitment to crime reduction seems to correlate with its rank as this report's top U.S. city with regard to safety and security. Such linkages help validate our results.

Indicators and variables

The 9 indicators and 32 variables we used to assess the business readiness of the 11 cities included in the report are as follows:³

Intellectual capital

- Top 500 universities
- Population with higher education
- Nobel Prize winners

Technology IQ and innovation

- Internet users on broadband
- High-tech services employment
- Self employment
- Patents

Transportation assets

- Registered taxis
- Underground track
- Airline carriers
- Passenger flows
- Airport cargo

Demographic advantages

- Population density
- Working-age population
- Diversity

Financial clout

- Global 500 headquarters
- Employment in financial and business services
- Domestic market capitalization
- Value of private equity

Cost

- Cost of business occupancy
- Cost of living
- Purchasing power

Lifestyle assets

- Entertainment
- Recreational space
- Hotel beds

Safety and security

- Hospital beds
- Crime statistics
- Personal safety and security

Ease of doing business

- Corporate tax
- Ease of hiring
- Work/life benefits
- Separation requirements

Footnote:

³ For each variable discussed in this report, the cities were assigned points from 1 to 11, with 11 indicating the highest-ranking city. To calculate overall indicator rankings, we added together the individual variable rankings within the indicators.

Intellectual capital

Rank	City	Score	Top 500 universities	Population with higher education	Nobel Prize winners
1	London	23	11	9	3
2	Paris	22	10	11	1
3	Tokyo	19	10	7	2
4	New York	18	10	4	4
5	Toronto	17	7	10	0
6	Atlanta	15	7	8	0
7	Los Angeles	12	7	5	0
8	Chicago	11	7	3	1
9	Frankfurt	9	2	7	0
10	Singapore	8	7	1	0
11	Shanghai	4	2	2	0

A city's intellectual capital is key to its business readiness. A highly educated pool of qualified and talented individuals is essential not only to the staffing needs of companies doing business in the city but also to business's ability to drive innovation. An educated populace will also have an impact on a city's quality of life by providing support for cultural institutions and the arts. In examining intellectual capital, we looked at three variables:

- Number of top 500 universities⁴
- Percentage of the population that have completed a post-secondary education
- Number of Nobel Prize winners (1999–2006)

With the highest number of top 500 universities, London takes first place in this indicator, with an overall score of 23. Second-place Paris scored highest in percentage of population having completed a higher education, and fourth-place New York takes the lead in number of Nobel Prize winners. Interestingly, third-place Tokyo did not take the top spot in any single variable. However, Tokyo ties with Paris and New York with respect to top 500 universities and slightly outranks Paris with regard to number of Nobel Prize winners. It is interesting to note that the number of Nobel Prize winners correlates strongly with the location of top 500 universities. This is not unexpected. The Nobel Prize winner variable is a proxy for high-level intellectual output in a variety of fields, including scientific and medical research.

Fifth-ranked Toronto, with fewer top 500 universities than the four leaders and no Nobel Prize winners, ranks above London and just below Paris in percentage of population with a higher education. This might suggest that Toronto is a destination point for Canada's more educated inhabitants. It might also be attributable to the fact that the Canadian government has prioritized the immigration applications of individuals applying through the "independent" or business tracks. These individuals tend to be highly educated.

Shanghai and Singapore achieve low scores on this indicator. However, we anticipate that as emerging cities like these flourish, they will experience a "brain gain"—that is, an influx of knowledge and talent that is a benefit of globalization. To a certain extent, this is already happening, as developed-economy companies increase their presence and people in promising emerging-economy cities. Undoubtedly, as this continues to occur, the rank that cities like Singapore and Shanghai attain on this indicator will rise.

Looking at the top two performers, London and Paris, one could draw the conclusion that cities very strong in this indicator have achieved a reasonable balance across the three variables. In general, however, it would seem that cities that wish to strengthen their showing in intellectual capital may want to consider taking steps either to strengthen existing universities so as to score more highly in worldwide rankings or, perhaps, to offer degree programs in areas likely to attract more students.

Footnote:

4 Shanghai Jiao Tong University, Top 500 World Universities 2006.

Technology IQ and innovation

Rank	City	Score	Internet users on broadband	High tech services employment	Self-employment	Patents
1	Tokyo	35	7	11	6	11
2	London	30	9	9	11	1
3	Paris	29	5	10	10	4
4	Atlanta	28	11	8	3	6
5	Frankfurt	24	3	7	9	5
5	New York	24	8	6	2	8
7	Toronto	23	10	3	7	3
8	Los Angeles	22	6	2	5	9
9	Chicago	17	4	5	1	7
9	Shanghai	17	2	1	4	10
11	Singapore	15	1	4	8	2

Perhaps more than any other, this indicator defines, in the popular mind, the 21st-century city of opportunity. The reason is clear: from corporate strategy to workforce issues, to public policy, to lifestyle, technology and innovation are and will continue to be the primary drivers of change. In examining technology IQ and innovation, we looked at four variables:

- Percentage of Internet users on broadband
- Number of people per 1,000 inhabitants employed in the high-tech services sector
- Percentage of working-age population that are self-employed
- Number of patents registered per 1 million of the population

Tokyo takes first place in this indicator, with an overall score of 35. It is also strong across all four variables, including best performance in high-tech services sector employment and in number of patents per million inhabitants. In second place overall, London achieves the top score in self-employment. Perhaps surprisingly, Atlanta has the highest ranking in broadband uptake, a score that is most likely due to local elected officials' taking concrete steps to wire the downtown, commerce-heavy area.

Interestingly, ninth-place Shanghai scores second in patents—most likely because of a concentration of patent offices in the city and an overall increase in the number of patents issued in China, an increase driven by patents related to certain manufacturing processes and to pharmaceutical and other medical devices, which are strong growth areas in China's economy.

However, even if Shanghai is removed from the calculation, anomalies still exist. For example, London, which ranks lowest in patents, still manages to rank second overall. Such anomalies can probably be attributed in part to the fact that the statistics on self-employment and patents measure different qualities. The data on patents measure the degree to which private companies or research institutions are developing newly patented technologies and processes, while the data on self-employment measure workforce creativity or a city's receptivity and attractiveness to entrepreneurs, artists, and others who tend to be self-employed.

In the top four cities, a significant correlation exists between the broadband and high-tech employment variables, suggesting that each variable has a relatively equal impact on technology IQ. However, the investment required to increase high-tech employment, especially given the ease with which such work can be outsourced, is significantly more than that required to lower broadband costs. Therefore, those cities wishing to boost their technology IQ might consider taking action to lower the cost and increase the availability of broadband rather than investing heavily in subsidies or other programs designed to recruit high-tech companies.

Transportation assets

Rank	City	Score	Registered taxis	Under-ground track	Airline carriers	Passenger flows	Airport cargo
1	New York	48	9	11	8	10	10
2	Paris	41	10	8	9	6	8
2	Tokyo	41	11	4	6	9	11
4	London	40	8	7	10	11	4
5	Frankfurt	35	5	9	11	4	6
6	Chicago	27	3	10	3	8	3
7	Singapore	23	7	5	4	2	5
8	Los Angeles	22	1	2	7	5	7
9	Atlanta	19	6	3	1	7	2
9	Shanghai	19	4	1	2	3	9
11	Toronto	15	2	6	5	1	1

A city’s ability to manage the ingoing and outgoing movement of people and cargo efficiently and cost-effectively is critical not only to its future growth but also to its very survival. In examining transportation assets, we looked at five variables:

- Number of registered taxis per 1,000 inhabitants
- Miles of mass-transit track per 100,000 inhabitants
- Number of airline carriers operating
- Number of ingoing and outgoing air passengers
- Inbound and outbound airport cargo (tons)

With the most miles of mass-transit track per 100,000 inhabitants, New York tops the list of cities for this indicator. In second place, Tokyo boasts the highest number of registered taxis per 1,000 inhabitants and the most tons of airport cargo. Even though it is tied for second place with Tokyo, Paris does not take the lead in any single variable. However, fourth-place London leads in ingoing/outgoing air passenger flows, and fifth-place Frankfurt takes the top spot with regard to number of airline carriers.

It is interesting to consider two of these variables—airline carriers and passenger flows—together, since doing so offers some insight into the nature of the cities with respect to this indicator. For New York and London, a close correlation exists between the two, perhaps indicating that these cities are as much points of destination as they are stopover points. At least for New York, additional research confirms that this is indeed the case. According to Port Authority of New York and New Jersey data, 85 percent of passenger flow is “origin and destination.”

But for some large cities, discrepancies between these two variables also tell an interesting story. Chicago and Atlanta, for example, show low numbers of carriers and high passenger flows, indicating that they are vestiges of the hub-and-spoke system; that is, they are destinations of necessity rather than of choice. Toronto, the one city where the opposite is true—that is, where carriers significantly exceed passenger flows—finishes last.

One final observation with regard to passenger flows bears making. Among the top three cities in this variable (London, New York, and Tokyo), the growth in passenger flows from 2003 to 2004 is 5.7, 12.2, and 4.4 percent, respectively. While these numbers indicate steady growth, they pale in comparison to passenger flow growth in Singapore (23 percent) and Shanghai (45 percent) over the same period.⁵

It is also interesting to note that Shanghai, with the youngest subway system, is planning to expand it by more than 300 kilometers (11 metro lines) over the next 25 years. However, since this variable measures miles per 100,000 inhabitants, Shanghai's large population is likely to prevent its scoring considerably higher in this indicator for some time to come.

While the results for this indicator intuitively seem to be correct, a note of caution is required. Although the variables in this indicator reasonably illustrate transportation assets in each city, we found it difficult to quantify the reliability of public transit systems. Even more important, we have not been able to measure the impact of congestion on access and travel in the cities and their surrounding regions. Congestion is an important determinant of freight efficiency, and a city's ability to handle air cargo efficiently and quickly in order to meet the just-in-time demands of global businesses is both critically important and a key consideration in business location decisions. In addition, congestion is a drag on economic productivity across all sectors.



Footnote:

5 Passenger flow data are from Airports Council International (ACI) with the addition of data directly from airports that are not included on the ACI list (LaGuardia, Long Beach, Midway, Shanghai). Growth numbers are derived from previous years' data from ACI and from individual airports not included on ACI's list. Airports Council International. 2004. *Passenger Traffic 2004 Final*. <http://www.airports.org>.

LaGuardia: http://www.panynj.gov/CommutingTravel/airports/html/lg_facts.html

Long Beach: http://www.longbeach.gov/airport/airport_statistics.asp

Midway: <http://www.flychicago.com/statistics/airportstatistics.shtm>

Shanghai: www.shanghaiairport.com/en/index.jsp

Demographic advantages

Rank	City	Score	Population density	Working-age population	Diversity
1	New York	23	10	2	11
2	Los Angeles	21	6	9	6
3	Singapore	20	8	10	2
4	Tokyo	19	7	8	4
5	Atlanta	17	1	6	10
5	Chicago	17	9	1	7
5	London	17	5	3	9
5	Toronto	17	4	5	8
9	Paris	16	11	4	1
9	Shanghai	16	2	11	3
11	Frankfurt	15	3	7	5

Demographics are about people. The right mix of people provides cities with advantages in terms of efficiencies, diversity, and depth of talent and skills available within the labor pool. In examining demographics, we looked at three variables:

- Density of population (people per square mile)
- Working-age population (as a percentage of total population)
- Diversity of foreign-born population⁶

New York, the top city in this indicator, also achieves the top score in diversity of the foreign-born population and makes a strong showing in density. It also has the second-lowest score in terms of working-age population, with Chicago's being the lowest.

Paris leads significantly in terms of density of population (a potential measure of access to labor), and Shanghai dominates the cities with respect to working-age population, followed by Singapore. At first glance, these findings might seem a bit surprising. In terms of density of population, why Paris rather than New York, and with respect to diversity, why Atlanta rather than London or Toronto? And why do Shanghai and Singapore outrank all of the other cities with regard to working-age population?



The nature of the variables suggests that definitive explanations may not be possible. The density variable is affected by many factors, including (1) availability and cost of land and (2) local planning policy in terms of such issues as zoning and building height restrictions. The working-age population variable is affected by declining birth rates in developed economies, by ethnic beliefs, and by traditions. The diversity variable measures the number of ethnic groups that make up at least one half of 1 percent of the foreign-born population in any given city.

One interesting aspect of the findings regarding this indicator is that the top two cities in the diversity variable are in North America, although London follows right behind Atlanta. This is one example of where London's large overall foreign-born population results in fewer groups representing 0.5 percent. However, overall, more nationalities are represented in London than in Atlanta.

Footnote:

⁶ Lisa Benton-Short, Marie Price, Samantha Friedman. 2004. *Global Perspective on the Connections between Immigration and World Cities*. For each city, the number of countries representing equal to or more than 0.5% of the total foreign-born population in the city is counted.

Financial clout

Rank	City	Score	Global 500 head-quarters	Employment in financial & business services	Domestic market capitalization	Value of private equity
1	New York	39	9	11	9	10
2	London	35	8	9	7	11
3	Paris	32	10	8	6	8
4	Tokyo	30	11	2	8	9
5	Frankfurt	22	5	10	4	3
6	Toronto	20	7	3	5	5
7	Chicago	18	4	7	3	4
8	Atlanta	14	6	6	0	2
8	Los Angeles	14	3	5	0	6
10	Singapore	13	1	4	1	7
11	Shanghai	7	3	1	2	1

There is an old saying: it takes money to make money. A city's financial clout is not only a good measure of its ability to do business. It is also a barometer of its power to attract the financial resources required to thrive in a global economy. What constitutes financial clout? In examining this indicator, we looked at four variables:

- Number of Fortune Global 500 headquarters⁷
- Percent of individuals employed in financial and business services
- Domestic market capitalization of stock exchanges
- Value of private equity deals, including venture capital

Not surprisingly, the current global powerhouses took the top four slots in this indicator, with New York scoring 39, London scoring 35, and Paris scoring 32. Tokyo follows closely, with a score of 30. New York dominates in two of the four individual variables—percent of individuals employed in financial and business services and domestic market capitalization of its stock exchanges⁸—more than any other city. Tokyo tops New York, London, and Paris in terms of number of Global 500 headquarters, and London leads in private equity.

New York, London, and Paris score highly and fairly consistently across all four variables, suggesting that financial clout derives not only from high scores in certain of these areas but also from a close correlation among them. However, Tokyo, which performs similarly in three of the four variables, scores near the bottom in financial and business services employment. Conversely, Frankfurt, with relatively few Global 500 headquarters and a low rate of domestic market capitalization, is nevertheless the second-ranked city in financial and business services employment.

London's higher ranking than New York's in private equity is explained by the fact that compared with the rest of the U.K., London represents a concentration of private equity and venture capital activity. In the U.S., New York has competition from other markets such as San Jose, California.

With respect to emerging cities, Singapore edges out Shanghai mainly as a result of higher scores in two variables: percentage of employment in financial and business services and value of private equity. However, Shanghai leads Singapore in domestic market capitalization. Since each of these variables suggests an influx of companies and cash, these findings are potentially significant and might be interpreted as harbingers of Shanghai's future success.



Footnotes:

⁷ *FORTUNE* magazine. 2006. *FORTUNE* Global 500, © 2006 Time Inc. All rights reserved. <http://money.cnn.com/magazines/fortune/global500/2006/index.html>

⁸ Los Angeles and Atlanta, neither of which hosts a stock exchange, are excluded from this variable.

Rank	City	Score	Cost of business occupancy	Cost of living	Purchasing power
1	Atlanta	29	10	11	8
2	Los Angeles	26	8	7	11
3	Chicago	25	7	8	10
4	Toronto	19	4	9	6
5	Frankfurt	18	3	10	5
5	Shanghai	18	11	6	1
7	New York	17	5	3	9
8	Singapore	16	9	5	2
9	Tokyo	14	6	1	7
10	Paris	9	2	4	3
11	London	7	1	2	4

Cost

Cost is a historically significant factor in a city's ability to attract companies and the individuals required to staff them. But this is changing as other priorities increasingly take precedence over cost alone.

In examining cost, we looked at three variables:

- Cost of business occupancy⁹
- Cost of living¹⁰
- Purchasing power¹¹

While the established powerhouse cities have the edge in financial clout, they are low on the list with regard to this indicator. London, Paris, Tokyo, and Singapore are the costliest cities in which to live and do business. The least costly cities in which to work and live are Atlanta, Los Angeles, and Chicago. In terms of the individual variables, Shanghai takes the top spot as having the lowest cost of business occupancy, with Atlanta following behind. Atlanta is the least costly city in which to live, and Los Angeles offers the most bang for the buck as the city in which residents have the most purchasing power.



Not surprisingly, among the top-scoring three cities, a close correlation exists between the cost of business occupancy and the cost of living. However, in certain of the costliest cities, the correlation is less evident. London, ranked as the costliest city in terms of business occupancy, is nearly but is not *the* costliest in which to live—a distinction held by Tokyo. In addition, among the costliest cities, Tokyo ranks highest in terms of purchasing power and cost of business occupancy, while Paris leads in lowest cost of living. Across all of the variables, London is the most costly city.

Interestingly, the top scorers consist of relatively new entrants into the ranks of global cities. And, with overall scores of 16 and 18, respectively, Singapore and Shanghai occupy nearly a middle ground with regard to cost. These findings suggest that while the more established and more mature cities offer a number of undisputed advantages, they also bring with them the highest costs.

Footnotes:

- 9 Staubach/DTZ Research Global Office Occupancy Costs, 2006. *Occupancy costs* is defined as the leasing costs for 10,000 square feet of prime office space within each city's central business district, maintenance costs, and property tax if this is normally paid by the tenant. It does not include fitting-out costs or potential leasing incentives offered by building owners.
- 10 Mercer Human Resource Consulting, 2006. *Cost of Living Survey—Worldwide Rankings 2006*. <http://www.mercerhr.com>; <http://www.finfacts.ie/costofliving.htm>.

- 11 Thomas Flury, Simone Hofer, et al., 2006. UBS. *Domestic Purchasing Power. Price and Earnings: A Comparison of Purchasing Power around the Globe*, 2006 ed., pp. 10–11.

Lifestyle assets

Rank	City	Score	Entertain- ment	Recrea- tional space	Hotel beds
1	Paris	31	11	10	10
2	New York	29	11	9	9
3	London	26	11	7	8
4	Tokyo	21	7	3	11
5	Los Angeles	19	11	6	2
5	Shanghai	19	1	11	7
5	Toronto	19	5	8	6
8	Chicago	15	7	5	3
9	Frankfurt	12	5	2	5
10	Singapore	10	2	4	4
11	Atlanta	5	3	1	1

With work/life issues dominating employee priorities, lifestyle assets are high on the list of items on many corporate agendas. In choosing a business location, many companies are factoring in a city’s livability— that is, its impact on local employees—and its “visitability”— that is, its impact on business travelers. In examining lifestyle assets, we looked at three variables:

- Entertainment¹²
- Recreational space as a percentage of a city’s area
- Number of hotel beds

Paris and New York lead the cities in terms of lifestyle assets, with overall scores of 31 and 29, respectively. Scoring 26, London follows closely behind. In terms of the individual variables, Paris, New York, London, and Los Angeles tie for the lead in entertainment, Shanghai takes the top spot with regard to recreational space, and Tokyo achieves the highest ranking in the number of hotel beds.

Several of Shanghai's scores are interesting and merit additional comment. Of particular interest is Shanghai's top ranking with regard to recreational space. This is a somewhat surprising result. Recreational space is perceived differently in China than it is in, for example, North America. In North America, access to parks is generally free and, for the most part, includes unrestricted use of the lawns and so on. In Shanghai, people typically pay to use parks and, once admitted, may be asked to keep off the grass.

While Shanghai scores highest in recreational space, it scores lowest in entertainment. However, as global business continues to flow into Shanghai, entertainment opportunities will follow, shoring up the city's performance in this, its weakest, variable.



Footnote:

12 Mercer Human Resource Consulting, *Worldwide Quality of Living, 2006*. Mercer Human Resource Consulting, 2006. *Cost of Living Survey—Worldwide Rankings 2006*. <http://www.mercerhr.com>. This variable is made up of the following criteria: variety of restaurants, availability of theatrical and musical performances, and availability and variety of types of cinemas.

Safety and security

Rank	City	Score	Hospital beds	Crime statistics	Personal safety and security
1	Frankfurt	32	11	10	11
2	Tokyo	28	10	9	9
3	Paris	24	9	6	9
4	Toronto	23	5	7	11
5	New York	21	7	8	6
5	Singapore	21	3	11	7
7	London	15	4	5	6
8	Chicago	14	6	2	6
9	Shanghai	13	8	4	1
10	Los Angeles	10	1	3	6
11	Atlanta	9	2	1	6

Terrorism has caused devastating damage to individuals and to property in major cities such as New York, London, and Madrid. While terrorism has affected both personal and business travel, it has also compounded the normal anxieties with regard to crime and health that have always existed among big-city residents and employers. Taken together, these factors have sharpened authorities' focus on safety and caused a significant increase in measures designed to tighten security across the board—on the streets, in buildings, and at airports and train stations—as well as in measures designed to increase a city's ability to respond to an attack and to provide victims with adequate medical care once an attack occurs. In examining safety and security, we looked at three variables:

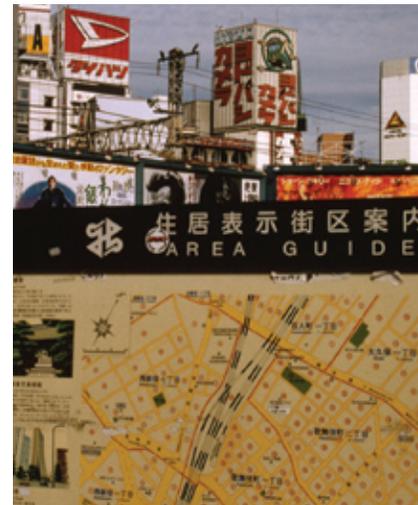
- Number of hospital beds per 10,000 inhabitants
- Crime statistics: murders and car thefts per 1,000 inhabitants¹³
- Personal safety and security¹⁴

Four points ahead of second-place Tokyo, Frankfurt takes the top spot as the safest and most secure city. Frankfurt also scores highest in number of hospital beds and ties for first place with fourth-ranked Toronto with regard to personal safety and security. Neither second-place Tokyo nor third-place Paris takes the top spot in any single variable. However, fifth-ranked Singapore achieves the highest score in crime statistics (lowest crime rate).

Among U.S. cities, Atlanta ranks lowest, not only against its U.S. counterparts but overall as well. In tenth place, Los Angeles fares a bit better, while in fifth place, New York ranks as the safest and most secure U.S. city and occupies a respectable middle ground overall. London comes in at seventh place.

Between the less-developed Asian cities, Singapore far outranks Shanghai in this indicator. It also trumps both Tokyo and Frankfurt in lowest rate of crime per 1,000 inhabitants. Only a low score in number of hospital beds prevents Singapore from achieving a higher overall ranking.

With low scores across the variables, Shanghai ranks ninth overall. This is somewhat surprising, because anecdotal evidence from business travelers suggests that Shanghai is quite safe and secure. However, comparative results for Shanghai might be affected by certain demographics, including number of people per household, number of cars per household, and so on.



Footnotes:

13 Statistics are limited to murder and car thefts, since these variables are defined consistently across the cities. In contrast, such crimes as assault and burglary are not.

14 Mercer Human Resource Consulting, Worldwide Quality of Living, 2006. Mercer Human Resource Consulting. 2006. *Cost of Living Survey—Worldwide Rankings 2006*. <http://www.mercerhr.com>. This variable includes internal stability, efficiency and fairness of law enforcement, ease of entry and exit, limitations on personal freedom, and censorship.

Ease of doing business

Rank	City	Score	Corporate tax	Ease of hiring	Work/life benefits	Separation requirements
1	Singapore	44	11	11	11	11
2	Toronto	39	10	7	11	11
3	Atlanta	36	3	11	11	11
4	Los Angeles	35	2	11	11	11
5	New York	34	1	11	11	11
6	Chicago	33	4	7	11	11
7	Tokyo	27	10	3	3	11
8	London	23	7	7	5	4
9	Shanghai	21	6	7	5	3
10	Frankfurt	16	8	2	3	3
11	Paris	12	5	1	3	3

Such factors as regulatory and other restrictions and baseline corporate taxation have an impact on a city's employment environment—that is, on the degree to which a city is conducive to business. In examining this indicator, we looked at four variables:

- Corporate tax rates
- Ease of hiring
- Work/life benefits
- Separation requirements

With an overall score of 44, Singapore tops the list as the city most conducive to doing business. Following closely behind are Toronto (39) and Atlanta (36). Singapore also takes the leading position across all of the variables, but that lead is exclusive only with regard to corporate tax rates. Among each of the other three variables, Singapore shares the top spot with a considerable number of other cities. For example, with regard to restrictions on hiring, Singapore shares its most-favorable ranking with Atlanta, Los Angeles, and New York. In addition, Toronto, Atlanta, Los Angeles, New York, and Chicago are as flexible as Singapore in terms of work/life benefits. And regarding separation requirements, Toronto, Atlanta, Los Angeles, New York, Chicago, and Tokyo have as few restrictions on dismissing employees as Singapore does.

With overall scores of 16 and 12, respectively, Frankfurt and Paris are the poorest performers in this indicator. This is due in part to the strength of labor unions in these cities. Interestingly, they are considerably poorer performers than the nine cities that outrank them. Reflecting the high performance levels of many of the cities in three of the four variables, differences in the scores among the top-ranking cities are minimal. While the top score is 44, the second- to sixth-ranked cities all score in the 30s. However, with no top scores in any of the variables, Frankfurt and Paris manage to score overall only in the teens.



Cities, indicators, variables, and rankings:
Components of a work in progress

As we reach the conclusion of this report, we want to emphasize that our list of cities and our choice of indicators are by no means exhaustive. For example, we might have included such cities as Milan or São Paulo, which certainly qualify as global cities. Our reason for not doing so is uncomplicated. Comparable and consistent data for many cities— Milan and São Paulo being but two—are simply not yet available. Under such circumstances, to include these cities at this time would place them at a disadvantage in many of the indicators and variables we selected to measure business readiness. As such data become available, any future editions of this report may indeed include Milan and São Paulo, as well as such cities as Hong Kong, Sydney, Johannesburg, Dubai, and Tel Aviv.¹⁵

Like our list of cities, the list of 9 business-readiness indicators and 32 variables upon which we ultimately settled is not definitive. Although we consulted a great diversity of sources, we were unable to find data that would support a number of indicators and variables we would have liked to include. Buried in our graveyard of many unfortunate discards are such tantalizing variables as number of BlackBerrys and similar devices, number of green building projects, number of business start-ups, and number of women in executive positions. For any future editions of this report, we will continue our efforts to discover, document, and include as many additional relevant variables as possible.

With regard to the variables we did select, for the sake of simplicity, clarity, and transparency we have weighted all of them equally. In addition, we have made every effort to equalize the data—currency values, for example—across the cities. It is important to note that our methodology does not account for the degree of difference between cities. For example, the top-ranked city in any variable may have outperformed the second-ranked city by 1 percent or by 100 percent.

Finally, we want to emphasize that the rankings in this report are by no means final. They represent a snapshot of business readiness at one moment in time.¹⁶ And some of the data in this study—broadband usage, for example—might have changed significantly by the time this report is published, possibly affecting rankings with respect to that and other variables.

In short, this study is very much a work in progress. However, despite its limitations, we believe this report presents an insightful and original measure of business readiness in 11 cities of opportunity—a measure based on indicators that are platforms for a vigorous and active knowledge economy that produces jobs, income, and wealth.

Footnotes:

¹⁵ Some might argue that Shanghai falls into this category. However, Shanghai's relatively low scores are indicative of infrastructure and institutions that have not yet caught up with the levels achieved by more developed cities.

¹⁶ Data released or updated after October 31, 2006 are not included in this report.

And the winner is . . .

By now, readers will have observed that we have not declared a winner—a model city of opportunity. London, New York, Paris, and Tokyo were the first cities to emerge as beneficiaries of globalization in the 20th century, and they continue to be the most attractive to business today. However, the four global leaders face an unprecedented challenge to their unqualified preeminence. All of the cities examined in this study can claim a degree of achievement in at least one variable—and some, in several.

Some cities may have picked their spots—that is, focused their energies on a key area and excelled therein. More likely, however, indicator scores are functions of a city's maturity. We expected mature cities like London, New York, Paris, and Tokyo to achieve high scores in such areas as financial clout or transportation assets. What we didn't expect is the degree to which emerging cities like Shanghai and Singapore or cities like Atlanta and Toronto—just now joining the ranks of the global powerhouses—are catching up or even taking the lead in certain variables.

However, while competition among cities spurs business readiness, competition is not the only significant factor. The data presented in this report demonstrate that global cities face similar challenges and in many cases have more in common with each other than with smaller cities in their own countries. Recognition of these similarities fosters alliances as well as competition.

We believe that these findings have implications both for cities—small and large, established and emerging—and for the companies planning to do business in them. For mature cities, they are a warning against complacency. For example, while financial clout may set New York, Paris, and London apart, strength in any one variable may not be enough to ensure leadership in a global economy, especially as the growth of electronic trading and other developments transform industries. For emerging cities and other cities that are just beginning to come into their own on the world stage—cities like Mumbai, São Paulo, and Johannesburg—the findings signal not only that it is possible to challenge the historical leaders but also that the characteristics of business readiness exemplified by established cities and outlined in this report can provide useful lessons going forward.

For business the message is clear: The range of global cities of opportunity is expanding, and their degree of business readiness is on the rise. New centers of global commerce are emerging, and new choices and opportunities abound. Skeptics and isolationists may find this a bitter pill to swallow, but for current and aspiring cities of opportunity—and for the businesses that will profit from as well as fuel their growth—it is welcome news indeed.



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- New York City Department of Finance
- California Franchise Tax Board
- Inland Revenue Authority of Singapore
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- Japan Ministry of Finance
- Her Majesty's Revenue & Customs

Ease of hiring, Work/life benefits, Separation requirements

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For business, the message is clear: The range of global cities of opportunity is expanding, and their degree

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