

Global Power City Index 2015

Summary



October 2015

Major cities around the world today are caught up in intense and complex competition. The stakes in these processes of global inter-city interaction are extremely high. The Global Power City Index (GPCI) evaluates and ranks the major cities of the world according to their “magnetism,” i.e. their comprehensive power which allows them to attract creative individuals and business enterprises from every continent and to mobilize their assets in securing economic, social, and environmental development.

The Mori Memorial Foundation’s Institute for Urban Strategies first released its GPCI in 2008 and has continued to update its rankings every year based on new research. Currently, the GPCI is highly regarded as one of the leading city indices and is utilized as reference material for policy and business strategies. The GPCI is utilized by numerous administrative, professional, and academic organizations worldwide, including the Japanese

and Tokyo Metropolitan Government.

Moreover, the Institute has actively engaged in dialogue with leading city experts and exchanged ideas on cities and competitiveness.

The GPCI continues to evolve: the information is constantly updated and the data collection method is improved. In GPCI-2015, a careful review of data for some indicators was performed to ensure that evaluations more accurately reflect actual conditions. This included the addition of quantitative data to indicators previously obtained through surveys alone.

The research results of the past eight years should serve as valuable data to help us understand the challenges faced by cities around the world, as well as what makes them appealing. It is hoped that the GPCI can assist in the formulation of urban policies and corporate strategies around the world.

* More detailed results of the research conducted for this ranking are scheduled to be published in December 2015 in the *Global Power City Index YEARBOOK 2015*. That report provides specific details on the methods of research used, scores and ranking analyses for each city, definitions of indicators, and lists of data sources.

Features of the Global Power City Index (GPCI)

1. As opposed to limiting the ranking to particular areas of research such as finance and livability, the GPCI focuses on a wide variety of functions in order to assess and rank the global potential and comprehensive power of a city.
2. The GPCI evaluates the comprehensive power of 40 of the world’s leading cities according to six main functions (**Economy**, **Research and Development**, **Cultural Interaction**, **Livability**, **Environment** and **Accessibility**) representing city strength. Additionally, the same cities were examined from the viewpoints of four global actors (**Manager**, **Researcher**, **Artist** and **Visitor**) and one local actor (**Resident**). They are personifications of representative citizens with diverse sets of needs and preferences. This double evaluation provides an all-encompassing view of the cities.
3. The GPCI reveals both the strengths and weaknesses of each city and uncovers specific problems to be addressed.
4. The GPCI was produced with the involvement of the late Professor Sir Peter Hall, a global authority in urban studies, as well as other academics in this field. The ranking is peer reviewed by international third parties who are experts in their fields.

In this report, the names of the GPCI functions are marked in **bold**, those of the indicators in *italics*, and those of the indicator groups and the factors are enclosed in quotation marks (“ ”).

1. Key Findings of GPCI-2015

Key Findings

- ◆ London, New York and Paris retain their hold on the top three places, respectively. Since hosting the 2012 Olympic and Paralympic Games, London in particular has been steadily increasing its score, further widening its lead on #2 New York.
- ◆ Tokyo continues to maintain the fourth place ranking it has held since the first GPCI in 2008. Improvement in **Environment**, **Accessibility**, and **Livability** slows somewhat, but the city rises from #6 to #5 in **Cultural Interaction** due to a rapid increase in the number of foreign visitors and international students.

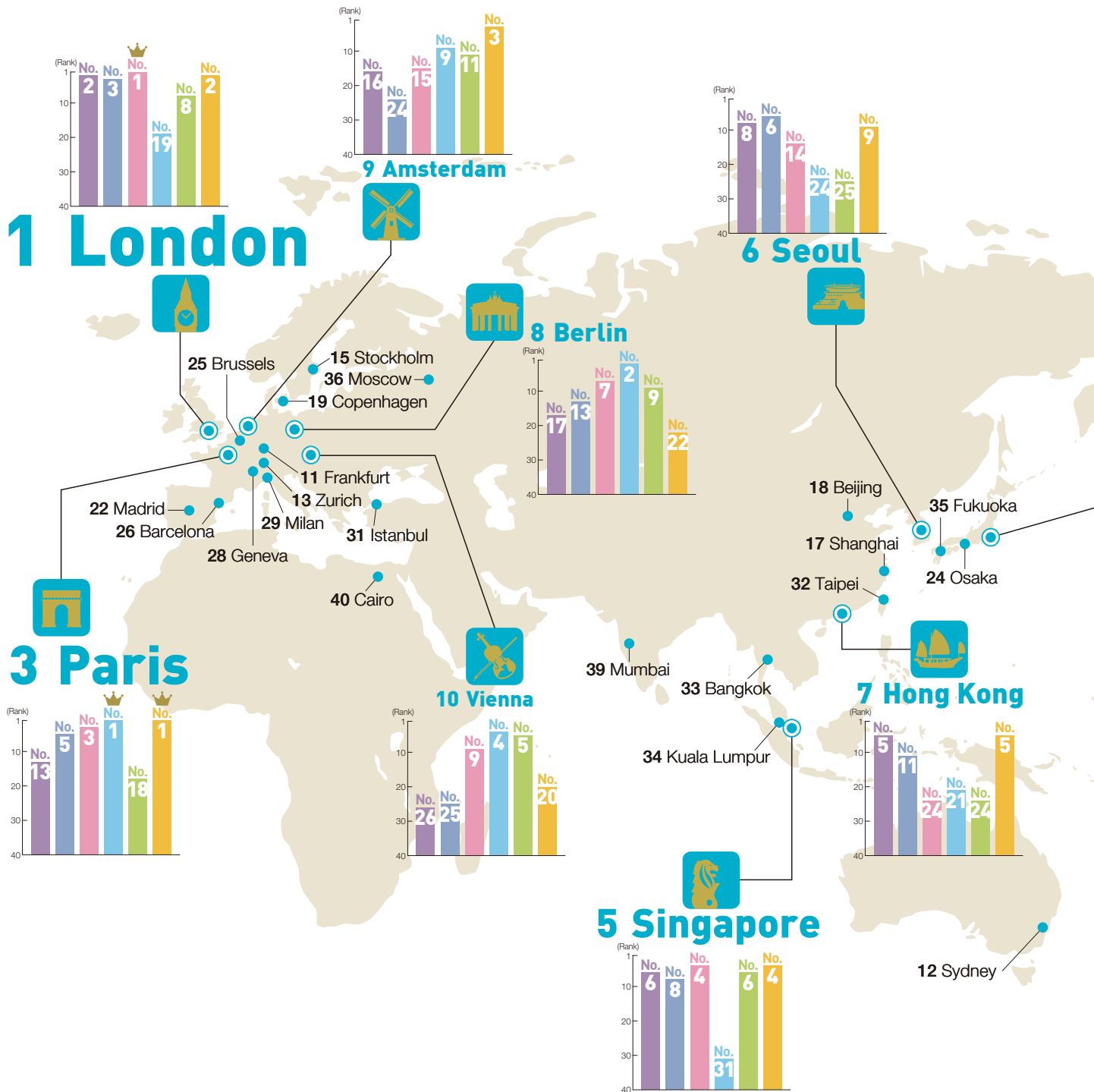


Fig. 1-1 Top 10 Cities by Function

- ◆ In Asia, adverse phenomenon is prominent between mid- and top-rank cities. Singapore (#5) and Hong Kong (#7) make significant gains, while Shanghai (#17) and Beijing (#18) slip in the rankings after exhibiting promising vitality in previous years.
- ◆ There is a surge by North American cities as Los Angeles jumps from #20 to #14, San Francisco from #32 to #21 and Boston from #30 to #23. This is due to the broader economic recovery pushing up their scores in **Economy** and **Livability**.

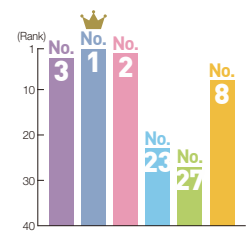
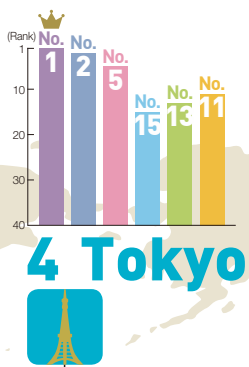
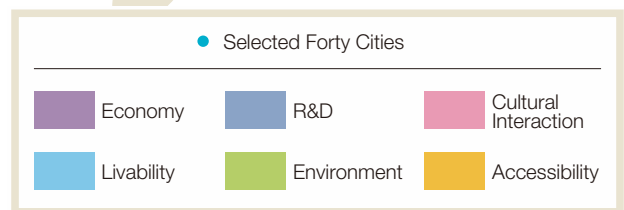
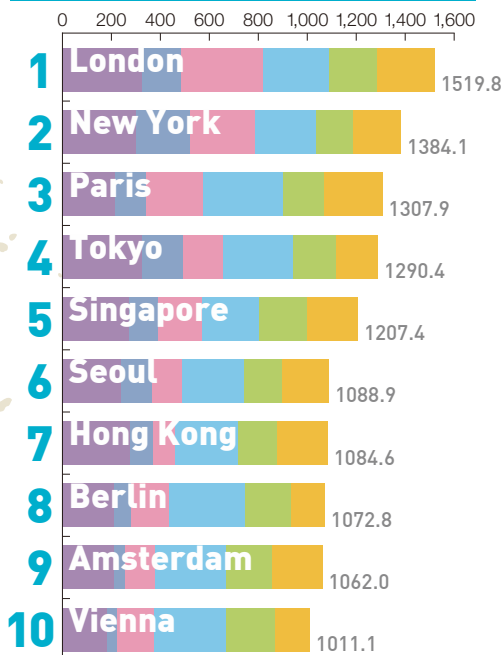


Fig. 1-2 Top10 Cities in Comprehensive Ranking



1-1 Trends in Function-Specific Rankings



Economy

Tokyo (#1), London (#2), and New York (#3) top the list in **Economy** based on their high scores for "Market Size" and "Ease of Doing Business."

London, ranked #4 last year, moves up to #2 on the back of higher scores for *GDP Growth Rate* and *Corporate Tax Rate*. Although Beijing's score for *Level of Political, Economic, and Business Risk* decreases, the city is closing the gap on New York (#3) as it continues to boost its scores for *Nominal GDP* and *World's Top 300 Companies*.

The cities of North America and other English-speaking urban centers, such as London and Singapore, boast outstanding scores for *Ease of Securing Human Resources*.



Research and Development

New York (#1) powers ahead of Tokyo, London, and Los Angeles in **Research and Development**.

Los Angeles (#4) is home to some of the world's leading educational institutions, including The California Institute of Technology, and therefore scores highly for *World's Top 200 Universities*, *Number of Winners of Highly-Reputed Prizes (Science and Technology-related Fields)*, *Number of Researchers*, and *Research and Development Expenditure*. Istanbul scores strongly in "Research Background," especially for *Readiness for Accepting Foreign Researchers*. This contributes to the city's jump to #21 from #30 last year.



Cultural Interaction

Cultural Interaction has the top five cities in order as London, New York, Paris, Singapore, and Tokyo. London (#1) has pulled away from the other four cities with high scores in all indicators.

New York (#2) is evaluated highly for "Trendsetting Potential," as is Paris (#3) for "Attractiveness to Visitors". Singapore (#4) has an overwhelming score in "Volume of Interaction" compared to any other city.

Tokyo (#5) has steadily worked its way up the list in this function since 2013 when it was ranked #8. The city significantly increases its scores for indicators such as *Number of Visitors from Abroad* and *Number of International Students* this year, climbing the ranking one spot from #6.



Livability

In **Livability**, the cities of Europe and Canada dominate. Specifically, Vancouver (#3), Barcelona (#5), and Geneva (#6), which all rank no higher than #20 in the comprehensive ranking, all feature in the top 10 in this function. These cities are rated highly in "Living Environment" and "Safety and Security."

London, New York, and Tokyo, cities that rank highly for **Economy** and **Cultural Interaction**, have relatively low scores in **Livability** (#19, #23, and #15, respectively). This is reflected in the high

"Cost of Living," such as *Average House Rent* and *Price Level*, due to the fact that these cities are characterized by a concentration of economic and cultural functions.

Paris continues to be ranked #1 in this function this year, given that its "Cost of Living" is not as high as London, New York, and Tokyo, while its short *Total Working Hours* is rated highly.



Environment

All of the top five places in **Environment** are occupied by European cities: Geneva (#1), Frankfurt (#2), Stockholm (#3), Zurich (#4), and Vienna (#5). The high scores for *CO₂ Emissions*, *Percentage of Waste Recycled*, and *Percentage of Renewable Energy Used* point to the innovative environmental policies these cities employ.

Vancouver rises from #23 last year to #7 in this function on the back of a low *Density of Suspended Particulate Matter (SPM)*, as well as strong scores in many other indicators that outstrip its North American counterparts.





Accessibility

Since the release of the first GPCI in 2008, London and Paris have continued to battle for top spot in **Accessibility**, with the latter prevailing this year. London's relinquishing title can be attributed to the changes in the definitions of several indicators as well as the city's overall score decline, which includes an increase in the number of *Transportation Fatalities per Population*. For the eight years since GPCI-2008, London has maintained its global top ranking in the two indicators of *Number of Cities with Direct International Flights* and *Number of Arriving/Departing Passengers on International Flights*.

For the newly added indicator of *International Freight Flows*, the calculation of which now includes volumes of shipped cargo, Hong Kong (#1) and Shanghai (#2) come out on top. Amsterdam (#3) and Singapore (#4), in this function, boast high scores for both *Number of Cities with Direct International Flights* and *International Freight Flows*.

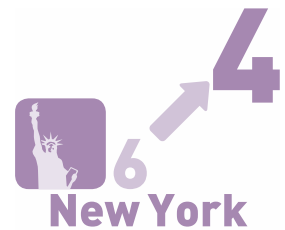


1-2 Trends in Actor-Specific Rankings



Manager

London (#1), Singapore (#2), and Hong Kong (#3) maintain their respective rankings from last year. However, Singapore and Hong Kong have closed the gap on London. New York and Paris both improve their scores for "Potential of Business Growth" and manage to move up in the rankings from #6 to #4 and from #8 to #6, respectively. Meanwhile, Shanghai slips from #5 to #7 and Istanbul plummets to #15 from #7.



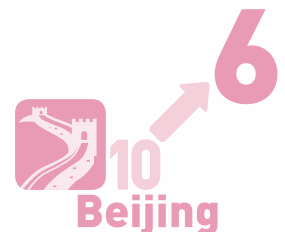
Researcher

New York (#1) ranks highly, while London (#2) has increased its score for "Qualities of Research Institutions, Researchers, and Directors" and widens the gap with Tokyo (#3). San Francisco climbs to #6 from #8, owing to an overall score increase. Seoul drops from #7 to #10 as the results of North American cities improve.



Artist

Paris (#1), New York (#2), London (#3), and Berlin (#4) are well ahead of the cities ranked #5 and below. New York increases its score for "Accumulation of Art Markets" and overtakes London this year. Despite boosting its score for "Environment for Creative Activities" and "Cultural Stimulation," Berlin remains at #4. In contrast, Beijing greatly increases its score for "Accumulation of Artists" and jumps to #6 from #10.



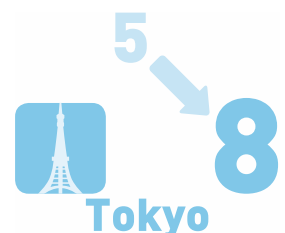
Visitor

In order, London (#1), Paris (#2), New York (#3), Istanbul (#4), and Singapore (#5) are evaluated highly. Singapore is ranked highly for "High-class Accommodations," "Richness of Tourist Attractions," and "Dining" and significantly improves its standing from last year (#9). Kuala Lumpur improves its score, especially for "Public Safety," surging to #22 from #34 last year.



Resident

European cities dominate this group, with Paris (#1) and London (#2) leading and Zurich (#4), Frankfurt (#5), and Berlin (#6) following. As a common theme, these European cities tend to be evaluated highly for "Working Environment" and "Quality of Medical Treatment." Tokyo, on the other hand, has failed to improve its overall score in these areas and falls from #5 to #8.



2. Methodology

2-1 Research Organization

The GPCI is created by a research body which comprises two groups of individuals: the Committee and the Working Group. The Committee, chaired by Heizo Takenaka (Professor at Keio University, Director of the Global Security Research Institute and Chairman of The Mori Memorial Foundation's Institute for Urban Strategies), supervises the ranking creation process. It comprises six Members, with the late Sir Peter Hall (Professor, University College London), who contributed to the original production of the GPCI, as Principal Advisor.

The Working Group, headed by Hiroo Ichikawa (Execu-

tive Director of The Mori Memorial Foundation, Professor and Dean of the Graduate School of Governance Studies at Meiji University) as Principal, performs the data collection and analysis to create the rankings for the cities. It also seeks advice from expert partners worldwide to incorporate the perspective of global actors to the evaluation.

In order to ensure the impartiality of the ranking creation process and the results, two third-party Peer Reviewers validate the contents and provide suggestions for improvement.

Fig. 2-1 Research Organization



* Some changes were made to the GPCI research organization this year. The Committee welcomed Allen J. Scott (Distinguished Research Professor, University of California, Los Angeles) and Peter Nijkamp (Professor, VU University Amsterdam and Fellow, Tinbergen Institute), both Peer Reviewers up until 2014. Newly appointed is also Michael Batty (Professor, University College London). Andrés Rodríguez-Pose (Professor, London School of Economics) and Heng Chye Kiang (Professor and Dean, National University of Singapore) serve as Peer Reviewers.

2-2 Target Cities

Fig. 2-2 40 Target Cities



Region	City
Europe	Madrid, Barcelona, London, Paris, Brussels, Amsterdam, Geneva, Frankfurt, Berlin, Zurich, Milan, Copenhagen, Vienna, Stockholm, Istanbul, Moscow
Africa	Cairo
Asia	Mumbai, Bangkok, Kuala Lumpur, Singapore, Hong Kong, Beijing, Shanghai, Taipei, Seoul, Fukuoka, Osaka, Tokyo
Oceania	Sydney
North America	Vancouver, San Francisco, Los Angeles, Chicago, Toronto, Washington, D.C., New York, Boston
Latin America	Mexico City, Sao Paulo

Criteria for Selection

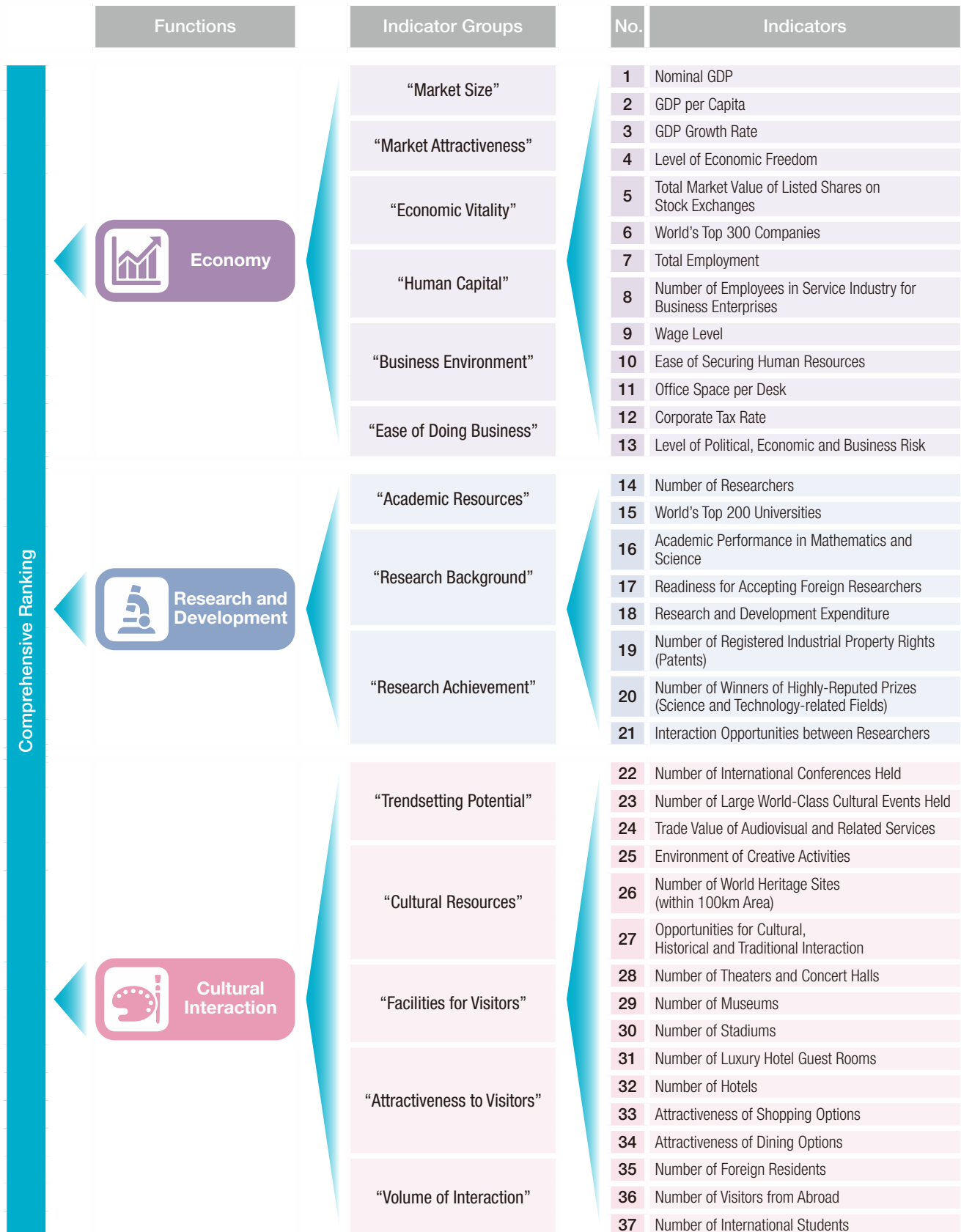
1. Cities found in the top ten of existing, influential city rankings, such as the Global Financial Centres Index (GFCI, Z/Yen Group), Global Cities Index (GCI, A.T. Kearney), and Cities of Opportunity (PricewaterhouseCoopers).
2. Major cities of countries that are in the top ten in terms of competition according to influential international competitiveness rankings, such as the Global Competitiveness Report (World Economic Forum) and IMD Competitiveness Ranking (Institute for Management Development).
3. Cities which do not meet the above criteria but which are deemed appropriate for inclusion by the GPCI Committee or its Working Group members

* Some cities match one or more of the above criteria but are not evaluated in the GPCI as necessary data are not available.

3. Result: Function-Specific Ranking

3-1 Ranking Method

Fig. 3-1 Flow of Function-Specific Ranking



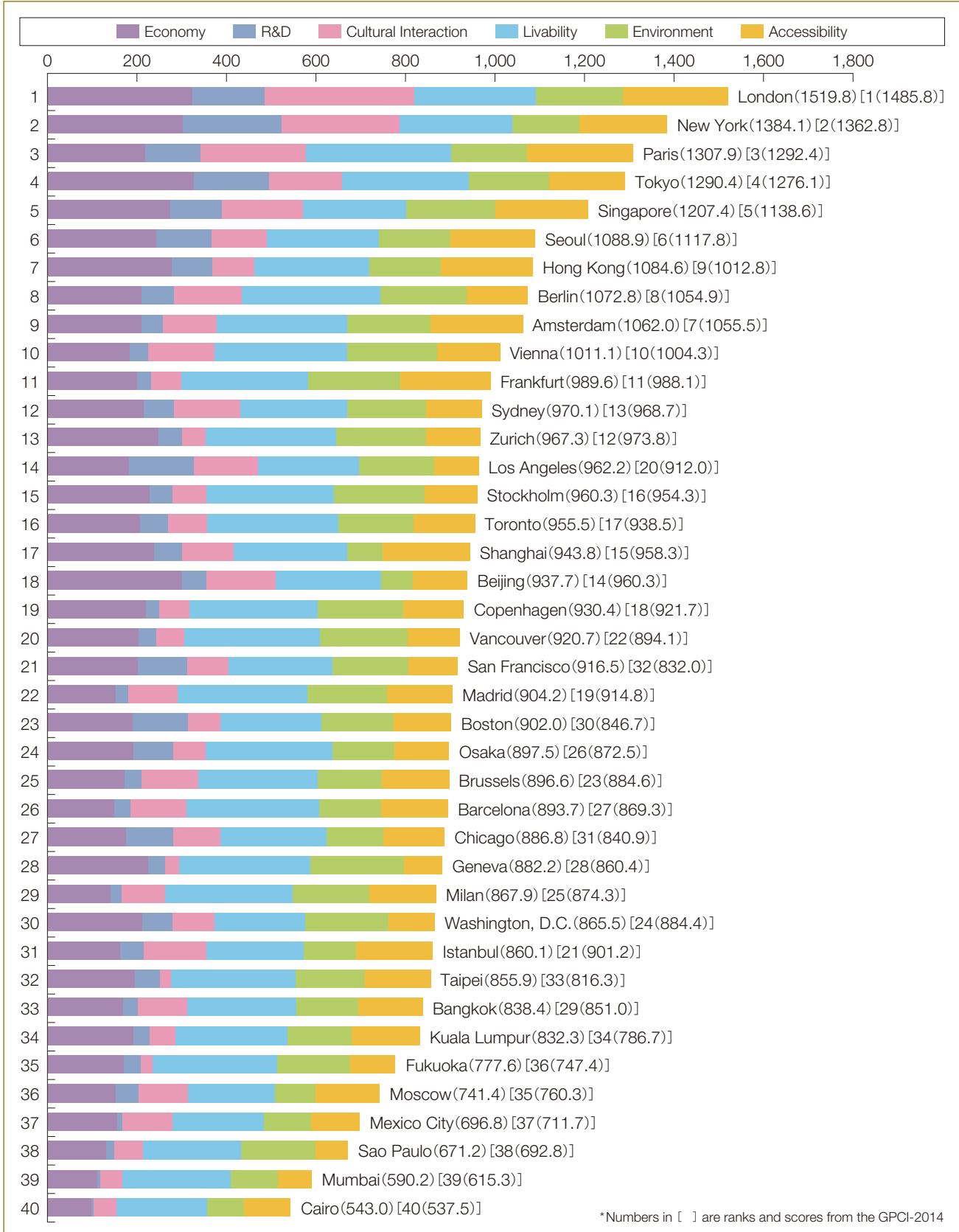
The GPCI evaluates its target cities in six urban functions: **Economy, Research and Development, Cultural Interaction, Livability, Environment, and Accessibility**. Each of the functions comprises multiple indicator groups, which in turn consists of several indicators.

A total of 70 indicators are used in the GPCI. The average indicator scores of the indicator groups are combined to create the function-specific rankings. The comprehensive ranking is created by the total scores of the function-specific rankings.









3-2 Comprehensive Ranking

Fig. 3-2 Comprehensive Ranking



3-3 Function-Specific Ranking

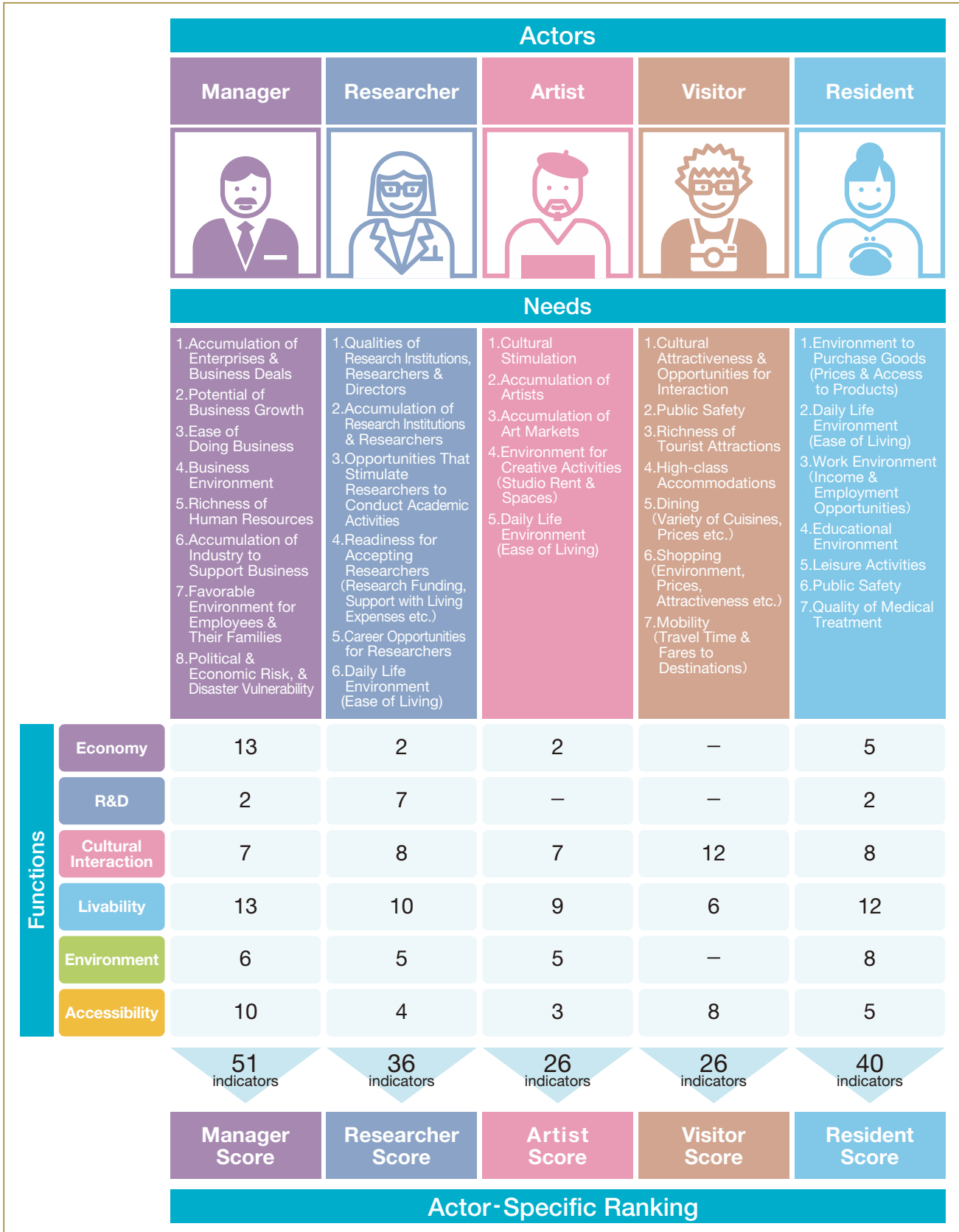
Table 3-1 Function-Specific Ranking

Rank	 Economy	 R&D	 Cultural Interaction	 Livability	 Environment	 Accessibility
1	Tokyo 326.7	New York 221.2	London 333.4	Paris 323.8	Geneva 208.1	Paris 236.9
2	London 323.6	Tokyo 167.8	New York 263.5	Berlin 310.1	Frankfurt 205.5	London 234.0
3	New York 302.2	London 161.9	Paris 236.0	Vancouver 302.3	Stockholm 205.0	Amsterdam 207.0
4	Beijing 300.8	Los Angeles 145.0	Singapore 180.3	Vienna 297.8	Zurich 200.9	Singapore 206.7
5	Hong Kong 277.6	Paris 124.2	Tokyo 164.5	Barcelona 296.1	Vienna 198.3	Hong Kong 205.0
6	Singapore 274.5	Seoul 122.7	Beijing 153.9	Geneva 294.1	Singapore 197.5	Frankfurt 201.9
7	Zurich 247.3	Boston 122.3	Berlin 151.5	Toronto 292.2	Vancouver 196.6	Shanghai 195.2
8	Seoul 243.2	Singapore 116.1	Sydney 147.9	Zurich 292.1	London 194.2	New York 194.2
9	Shanghai 239.6	San Francisco 109.6	Vienna 147.4	Amsterdam 290.8	Berlin 191.9	Seoul 189.5
10	Stockholm 227.7	Chicago 104.4	Los Angeles 144.0	Madrid 289.4	Copenhagen 191.6	Istanbul 171.3
11	Geneva 225.0	Hong Kong 91.1	Istanbul 141.2	Copenhagen 286.9	Amsterdam 186.6	Tokyo 169.9
12	Copenhagen 221.3	Osaka 88.4	Brussels 128.3	Milan 284.9	Washington, D.C. 185.7	Kuala Lumpur 153.4
13	Paris 217.5	Berlin 72.3	Barcelona 125.9	Stockholm 283.5	Tokyo 178.8	Brussels 149.4
14	Sydney 214.5	Sydney 67.9	Seoul 124.9	Frankfurt 283.0	Madrid 177.0	Barcelona 147.9
15	Washington, D.C. 211.3	Washington, D.C. 67.6	Amsterdam 119.0	Tokyo 282.8	Sydney 176.9	Milan 147.3
16	Amsterdam 210.3	Shanghai 62.8	Shanghai 113.2	Osaka 280.8	Milan 172.2	Madrid 145.9
17	Berlin 210.2	Toronto 61.9	Mexico City 113.2	Taipei 278.4	San Francisco 170.3	Taipei 145.8
18	Toronto 207.1	Beijing 55.1	Madrid 111.6	Fukuoka 276.6	Paris 169.5	Bangkok 143.5
19	Vancouver 204.4	Taipei 55.1	Bangkok 109.7	London 272.7	Toronto 168.2	Moscow 143.3
20	San Francisco 203.4	Zurich 53.3	Moscow 109.0	Brussels 265.8	Los Angeles 167.9	Vienna 141.7
21	Frankfurt 201.6	Istanbul 52.4	Chicago 105.6	Hong Kong 256.9	Sao Paulo 165.9	Toronto 137.5
22	Taipei 195.1	Moscow 52.1	Milan 98.0	Shanghai 254.4	Fukuoka 164.2	Berlin 136.8
23	Osaka 192.7	Stockholm 50.9	Washington, D.C. 94.9	New York 250.8	Boston 161.9	Chicago 136.0
24	Kuala Lumpur 191.8	Amsterdam 48.4	Hong Kong 93.5	Seoul 250.4	Hong Kong 160.5	Copenhagen 135.0
25	Boston 190.9	Vienna 43.0	San Francisco 92.0	Kuala Lumpur 247.8	Seoul 158.2	Boston 127.7
26	Vienna 182.9	Fukuoka 39.7	Toronto 88.7	Bangkok 244.6	Taipei 156.1	Sydney 124.1
27	Los Angeles 181.6	Vancouver 39.2	Stockholm 76.6	Mumbai 242.6	New York 152.3	Beijing 122.1
28	Chicago 175.9	Geneva 37.5	Osaka 73.6	Sydney 238.7	Kuala Lumpur 143.9	Zurich 121.9
29	Brussels 173.2	Kuala Lumpur 37.1	Boston 72.9	Chicago 237.5	Brussels 143.2	Osaka 121.7
30	Fukuoka 169.2	Brussels 36.7	Copenhagen 67.3	Beijing 236.1	Osaka 140.2	Stockholm 116.6
31	Bangkok 169.1	Barcelona 36.1	Frankfurt 66.3	Singapore 232.3	Barcelona 138.5	Vancouver 114.8
32	Istanbul 162.6	Bangkok 33.1	Vancouver 63.4	San Francisco 231.6	Bangkok 138.4	San Francisco 109.6
33	Mexico City 156.5	Frankfurt 31.3	Sao Paulo 63.4	Boston 226.2	Chicago 127.3	Mexico City 107.3
34	Madrid 153.2	Copenhagen 28.3	Kuala Lumpur 58.3	Los Angeles 225.1	Istanbul 115.8	Cairo 103.8
35	Moscow 152.3	Madrid 27.1	Zurich 51.8	Sao Paulo 219.5	Mexico City 106.4	Washington, D.C. 103.8
36	Barcelona 149.2	Milan 23.5	Cairo 50.1	Istanbul 216.8	Mumbai 105.4	Fukuoka 100.6
37	Milan 142.0	Sao Paulo 16.2	Mumbai 47.6	Mexico City 203.6	Moscow 88.9	Los Angeles 98.7
38	Sao Paulo 133.1	Mexico City 9.9	Geneva 31.8	Cairo 202.6	Cairo 83.1	Geneva 85.7
39	Mumbai 111.7	Mumbai 7.8	Fukuoka 27.3	Washington, D.C. 202.1	Shanghai 78.6	Mumbai 75.1
40	Cairo 98.5	Cairo 4.9	Taipei 25.5	Moscow 195.8	Beijing 69.7	Sao Paulo 73.2

4. Result: Actor-Specific Ranking






4-1 Ranking Method

Fig. 4-1 Flow of Actor-Specific Ranking



4-2 Actor-Specific Ranking

Table 4-1 Actor-Specific Ranking

Rank	 Manager	 Researcher	 Artist	 Visitor	 Resident
1	London 61.2	New York 65.7	Paris 53.4	London 58.6	Paris 62.5
2	Singapore 59.7	London 55.5	New York 52.9	Paris 51.1	London 56.6
3	Hong Kong 55.3	Tokyo 53.0	London 49.5	New York 50.9	New York 56.1
4	New York 48.7	Paris 48.7	Berlin 46.2	Istanbul 44.6	Zurich 53.2
5	Beijing 47.6	Los Angeles 44.8	Vienna 46.0	Singapore 43.5	Frankfurt 52.5
6	Paris 46.6	San Francisco 42.4	Beijing 45.5	Tokyo 42.5	Berlin 52.4
7	Shanghai 46.2	Boston 38.9	Los Angeles 43.9	Beijing 42.2	Vienna 51.7
8	Tokyo 46.2	Singapore 37.7	Tokyo 43.1	Shanghai 41.8	Tokyo 51.5
9	Seoul 45.2	Chicago 36.4	Amsterdam 42.6	Bangkok 40.5	Stockholm 50.3
10	Kuala Lumpur 45.1	Seoul 36.3	Barcelona 40.6	Berlin 40.4	Amsterdam 48.8
11	Berlin 42.6	Hong Kong 32.3	Madrid 39.9	Barcelona 39.7	Geneva 48.7
12	Stockholm 41.9	Washington, D.C. 31.7	Mexico City 38.1	Vienna 38.6	Boston 48.4
13	Taipei 41.9	Sydney 31.0	Chicago 37.3	Amsterdam 37.6	Copenhagen 48.0
14	Amsterdam 41.8	Berlin 30.9	Shanghai 37.1	Hong Kong 36.3	Washington, D.C. 47.9
15	Istanbul 40.7	Osaka 30.8	Washington, D.C. 37.0	Madrid 36.1	Milan 47.2
16	Copenhagen 40.6	Beijing 30.7	Toronto 36.5	Seoul 34.6	Vancouver 47.2
17	Zurich 40.3	Toronto 26.8	Vancouver 36.1	Toronto 32.5	San Francisco 46.6
18	Toronto 40.3	Vancouver 25.6	Milan 36.0	Brussels 32.4	Toronto 46.0
19	Vienna 39.6	Zurich 25.5	Stockholm 35.3	Milan 32.3	Hong Kong 45.3
20	Bangkok 39.2	Moscow 25.4	Brussels 35.3	Sydney 31.7	Osaka 45.0
21	Vancouver 39.2	Vienna 25.1	Frankfurt 34.5	Frankfurt 31.5	Sydney 44.7
22	Boston 38.4	Stockholm 25.0	Copenhagen 34.4	Kuala Lumpur 31.1	Brussels 44.3
23	Frankfurt 38.1	Amsterdam 24.0	Istanbul 33.9	Chicago 30.5	Madrid 44.0
24	Geneva 38.1	Geneva 22.8	Osaka 33.4	Mexico City 29.6	Seoul 43.6
25	Osaka 35.5	Copenhagen 21.4	Bangkok 33.4	Osaka 29.4	Singapore 43.2
26	Washington, D.C. 35.2	Shanghai 20.5	San Francisco 33.1	Boston 29.0	Barcelona 43.0
27	Barcelona 35.0	Frankfurt 20.1	Fukuoka 32.6	Vancouver 29.0	Fukuoka 43.0
28	Chicago 34.9	Bangkok 20.1	Sydney 32.2	San Francisco 28.6	Taipei 42.8
29	Sydney 34.8	Madrid 19.9	Sao Paulo 31.9	Washington, D.C. 27.7	Los Angeles 41.9
30	Brussels 34.3	Milan 19.8	Kuala Lumpur 31.9	Zurich 27.5	Beijing 41.1
31	San Francisco 33.6	Fukuoka 19.2	Moscow 31.0	Los Angeles 27.2	Shanghai 41.0
32	Fukuoka 32.7	Istanbul 19.2	Mumbai 30.9	Stockholm 26.7	Chicago 40.1
33	Madrid 32.7	Taipei 19.1	Cairo 30.7	Copenhagen 26.6	Moscow 37.3
34	Los Angeles 32.2	Brussels 18.6	Boston 30.1	Cairo 26.3	Kuala Lumpur 33.6
35	Milan 31.3	Barcelona 17.7	Seoul 29.3	Taipei 25.7	Istanbul 32.9
36	Mumbai 28.5	Mexico City 17.4	Zurich 28.4	Moscow 25.3	Mexico City 32.9
37	Mexico City 26.6	Kuala Lumpur 17.2	Taipei 27.4	Mumbai 23.7	Sao Paulo 32.1
38	Moscow 24.4	Sao Paulo 15.8	Geneva 26.2	Fukuoka 23.1	Bangkok 31.1
39	Sao Paulo 24.3	Mumbai 13.6	Hong Kong 19.6	Geneva 21.8	Mumbai 27.9
40	Cairo 23.2	Cairo 11.6	Singapore 18.9	Sao Paulo 20.5	Cairo 25.8

5. Analysis

5-1 Fluctuation in Comprehensive Ranking

Fig. 5-1 Fluctuation in Comprehensive Ranking (GPCI 2008-2015)



5-2 Analysis of Fluctuation in Comprehensive Ranking



The cities of Asia and Oceania can be broadly placed into three groups that reflect past ranking fluctuations.

The first group comprises Tokyo, Singapore, and Seoul. These three cities have seen few ranking changes since 2012 and remain firmly entrenched towards the top of the list. It will be interesting to see whether or not Hong Kong can force its way into this group, considering that it has steadily risen in the ranking in recent years.

The second group comprises Beijing and Shanghai. After increasing their respective rankings up to around 2012-13, these Chinese cities have been on a downward trend ever since. The slowdown in **Economy**, the driving force behind their rise so far, coupled with an overall downturn in the other functions, have caused their re-

spective comprehensive rankings to fall over the past few years.

The third group includes seven cities characterized by relatively low rankings and downward trends: Osaka, Istanbul, Taipei, Bangkok, Kuala Lumpur, Fukuoka, and Mumbai. Even though differing individual factors play a part in the rankings of these cities, declining scores in some functions is a common trait within this group, notably **Cultural Interaction**, **Livability**, and **Environment**.



New York aside, the cities of North and Latin America can be broadly split into two groups.

One of those groups comprises six North American cities: Los Angeles, Toronto, Vancouver, San Francisco,



Boston, and Chicago. Despite falling in the ranking for some time, these cities have gradually worked their way back up the list since 2012, which suggests they continue to recover from the Global Financial Crisis of 2008. In contrast with the cities of the US, the two Canadian cities are characterized by high scores in **Livability** and **Environment**.



The cities in the other group, namely Washington, D.C., Mexico City and Sao Paulo have failed to improve their scores and remain stagnant in the comprehensive ranking.



The cities in Europe and Africa may roughly be divided into four groups in their tendency. London and Paris have been occupying the top spots since 2008. Amsterdam, Berlin, Vienna, and Frankfurt

have constantly positioned themselves in the upper ranks. Zurich, Stockholm, Copenhagen, and Milan have been stable in the middle ranks. Madrid, Brussel, Barcelona, Geneva, Moscow, and Cairo have been declining in recent years.

From an overall perspective, the cities of Europe are

rated highly in **Livability** and **Environment**, and their comprehensive rankings tend to be swayed by differences in scores in the other functions, notably **Economy**, **Research and Development**, and **Cultural Interaction**.



5-3 Comparison of Top 4 Cities

Since the inception of the GPCI in 2008, none of the four cities of London, New York, Paris, and Tokyo have yet to relinquish a spot in the top four. Naturally, each city has its own strengths and weaknesses, but their over-

whelming comprehensive power continues to sustain their leading rankings. This section compares the top four cities in detail.

Fig. 5-2 Top 4 Cities: Comparison in Function-Specific Ranking

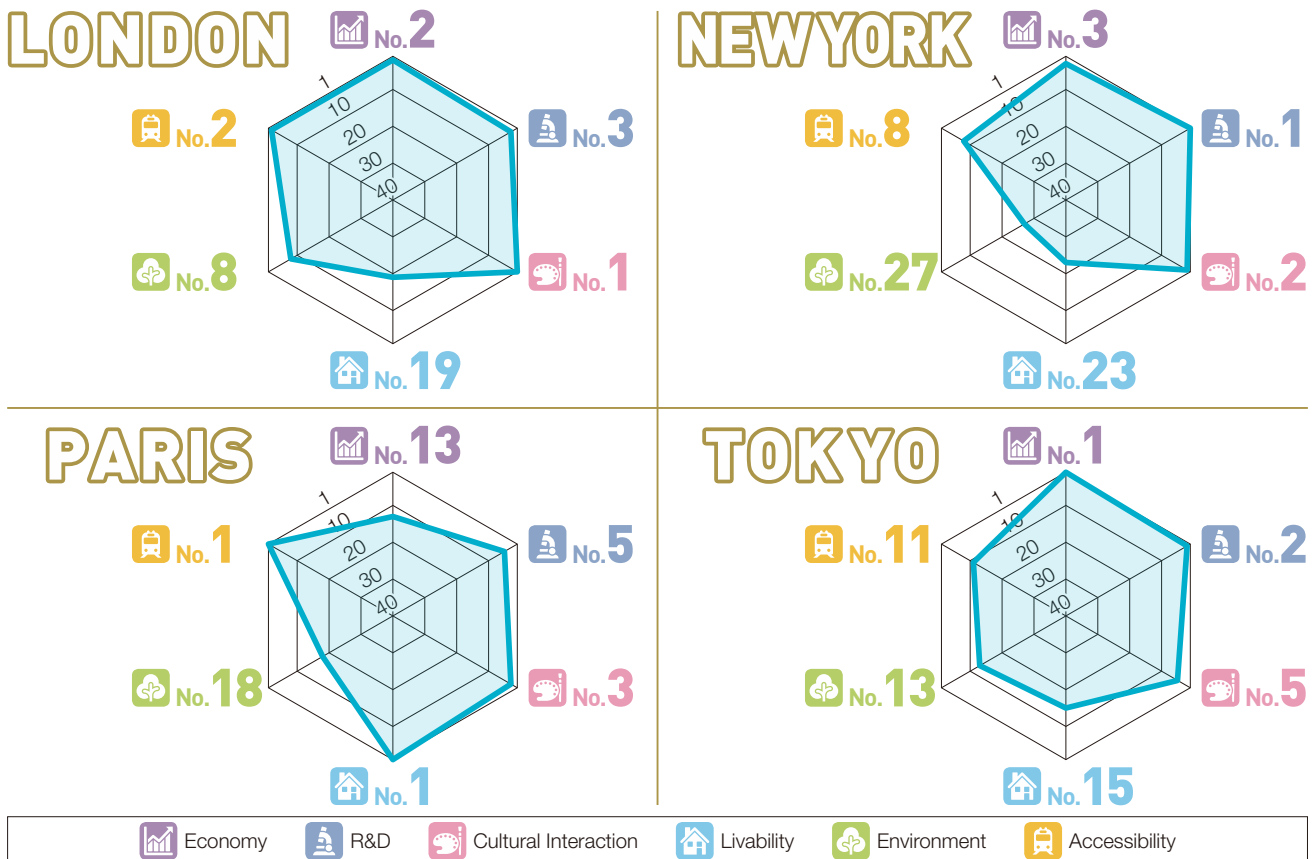
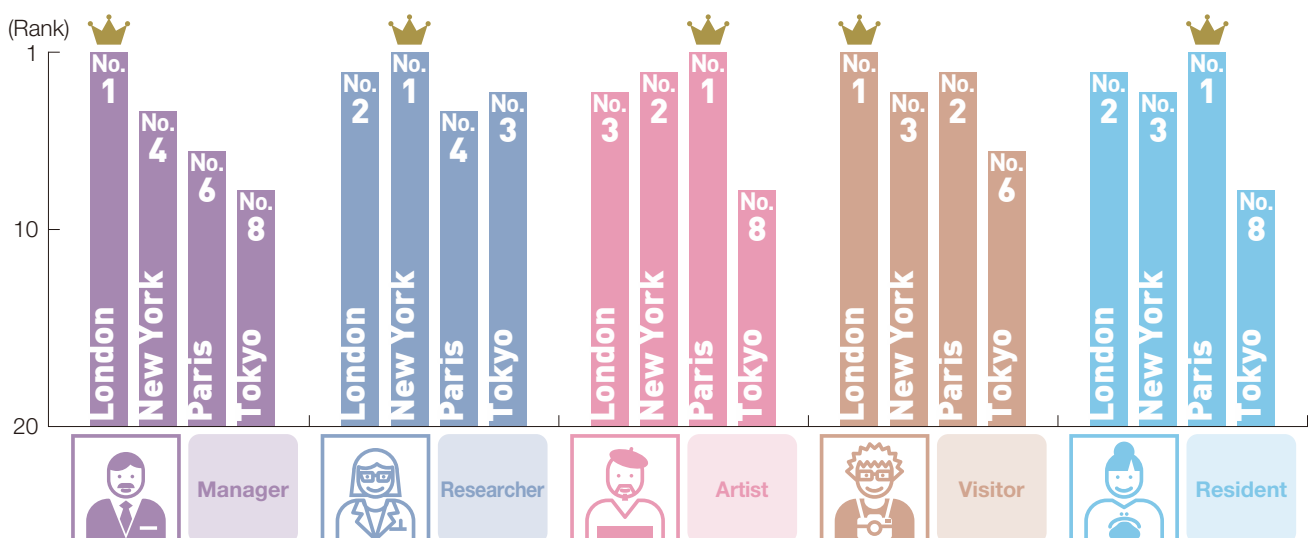


Fig. 5-3 Top 4 Cities: Comparison in Actor-Specific Ranking





London No Olympic hangover for this ceaselessly growing global city

London has maintained the top position since 2012, falling within the top three for all functions other than **Livability** and **Environment**. As it geared up for the 2012 Olympic and Paralympic Games and other major cultural and sporting events, London greatly improved its overall magnetism. The city is still proceeding with long-term urban development projects in the inner city and the vicinity of the Queen Elizabeth Olympic Park, as well as the construction of the Crossrail, a new east-west railway line. As a global metropolis expected to see a greater influx of people in the years ahead, all eyes are on how much further London can increase its comprehensive strength.



Comprehensively well-performing, London consistently gets high scores for all indicators in **Cultural**

Fig. 5-4 Number of Visitors from Abroad



Weaknesses

While London is exceptionally strong overall, it does not perform well in **Livability**. This is a common trend among developed cities, mainly owing to the high costs of living. Among the 40 cities evaluated, there are multiple **Livability** indicators for which London performs poorly, including *Average House Rent* (#37) and *Price Level* (#29). This may represent the negative consequence of the city's continued improvement.

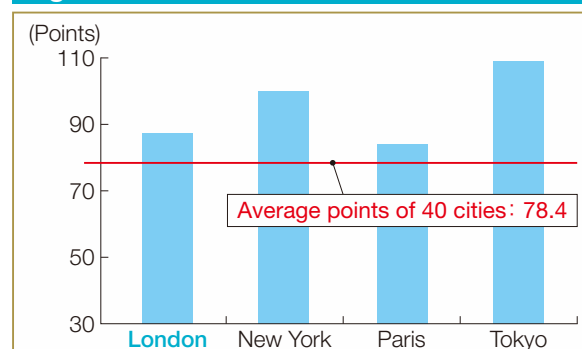
Strengths

Interaction, where it has taken the top spot since the first GPCI in 2008. In particular, the city is rated highly for *Number of Museums* (#1), *Number of Foreign Residents* (#2) and *Number of Visitors from Abroad* (#1).

London also makes a strong show in **Economy**, consistently maintaining high scores for indicators such as *Nominal GDP* (#3), *Total Market Value of Listed Shares on Stock Exchanges* (#4) and *Ease of Securing Human Resources* (#2).

It is also worth noting that one reason the English capital keeps getting ahead of New York on the overall ranking is its superior **Environment** scores.

Fig. 5-5 Price Level





New York The global trendsetter



Since surrendering the top spot to London in 2012, New York has remained at second place. In **Research and Development**, **Cultural Interaction** and **Economy**, the city ranks third or higher, but it is held back by poor scores in **Livability**, **Environment** and **Accessibility**. Although London has been widening the gap between them each year, New York could reclaim the title if it invests in urban renewal projects to deal with its population expansion.

Strengths

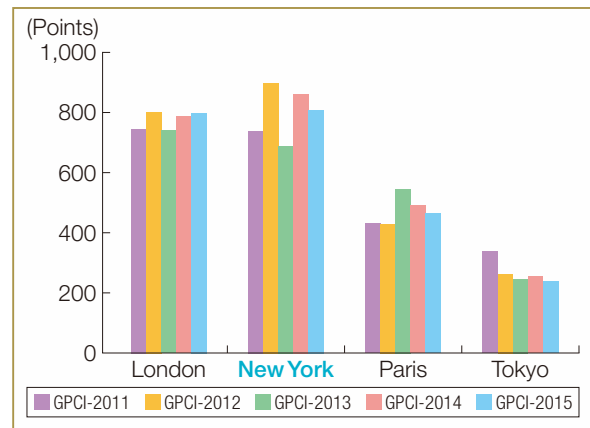
Research and Development is

New York's biggest strength. Its high scores in *World's Top 200 Universities* (#1), *Research and Development Expenditure* (#1) and *Number of Researchers* (#2) keep it well ahead of second-placed Tokyo. The city is also home to some of the world's leading educational institutions, including Columbia University and New York University, which underpins a strong score for "Academic Resources".

Given that the city is famous for its Broadway shows, it is no surprise that New York does well in **Cultural Interaction**, where it takes the top spot for *Number of Theaters and Concert Halls*. The concentration of culture is one of the city's strong points, also reflected in the top rankings for "Environment of

Creative Activities" and *Trade Value of Audiovisual and Related Services*.

Fig. 5-6 World Top 200 Universities



Livability has been an area of weakness, but the city climbs six places this year to #23. This is partly due to considerable improvement in *Total Unemployment Rate* (#26). Unemployment had been way up in the aftermath of the 2008 Global Financial Crisis, but

Table 5-1 Average House Rent (USD/month)

London	New York	Paris	Tokyo
3,260	4,300	2,280	2,490

* The value of "unfurnished 3-room apartment" (medium price range)

Weaknesses

numbers have started to improve in recent years. The city also had strong scores this year in the "Living Facilities" indicator group, including *Number of International Schools* (#15) and *Variety of Retail Shops* (#3).

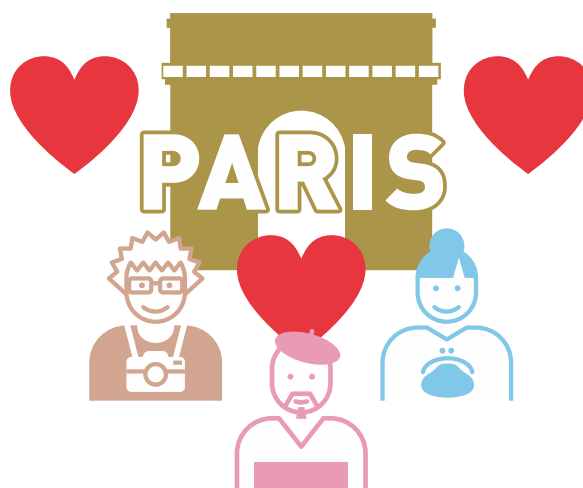
However, due to low scores in *Price Level* (#33) and *Average House Rent* (#39), New York retains the lowest **Livability** score among the top four cities.



Paris A dazzling city brimming with enchanting sights and culture

Paris has stayed in third place since 2008. It is the weakest of the top four cities in **Economy**, but is ranked in the top five for **Livability**, **Accessibility**, **Cultural Interaction** and **Research and Development**.

Paris' inner city has changed little over the years due to strict regulations on development, but a number of large-scale development projects and infrastructure schemes are underway in other areas. Provided Paris can continue to preserve its beautiful city landscape and enhance urban functions where necessary in the suburbs, the French capital could greatly improve its overall strength.



Paris' strength is reflected in its top ranking for both **Livability** and **Accessibility**, while it also scores quite highly in **Cultural Interaction** (#3).

Major cities in developed countries that boast high scores for **Economy** and **Cultural Interaction** tend to be impeded by high costs dragging down their **Livability** score, but Paris bucks this trend. In fact, it

Table 5-2 Number of Hotels

London	New York	Paris	Tokyo
742	509	1,241	398

Weaknesses

Environment is one area of weakness for Paris, and, in comparison with the other top four cities, **Economy** also lags.

In **Environment**, Paris has issues with air quality, placing #29 for *Density of Suspended Particulate Matter (SPM)* and #26 for *Density of Sulfur Dioxide (SO₂)*, *Density of Nitrogen Dioxide (NO₂)*.

Paris is ranked in the top five for only two **Economy** indicators: *GDP per Capita* (#4) and *World's Top 300 Companies* (#3). The lack of economic power is in direct contrast to London and New York, the two cities it trails in the overall ranking. Unlike those cities, Paris has failed to provide a business environment that

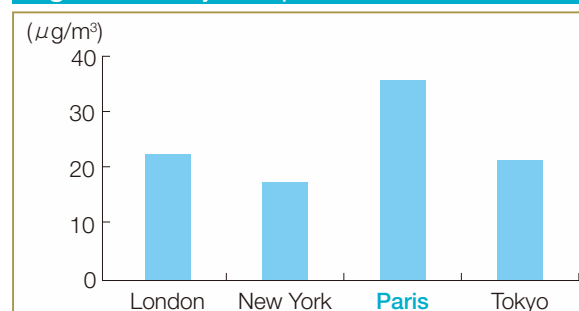
places first in **Livability**, propelled by high scores in *Total Working Hours* (#1), *Number of Medical Doctors per Population* (#2), and *Variety of Restaurants* (#5).

In **Accessibility**, Paris also boasts excellent domestic and international connections, taking second in *Number of Cities with Direct International Flights* and first in *Density of Railway Stations*.

The city ranks highly for many **Cultural Interaction** indicators, including *Number of Large World-Class Cultural Events Held* (#1), *Number of Museums* (#2), and *Number of Hotels* (#1).

appeals to corporations, highlighted by its poor scores for *Corporate Tax Rate* (#28) and *Level of Political, Economic and Business Risk* (#25).

Fig. 5-7 Density of Suspended Particulate Matter (SPM)





Tokyo Anticipating an Olympic boost



Tokyo maintains the fourth-place ranking it has held since the first GPCI in 2008. The Japanese capital still has a comfortable lead as the top Asian city, but the gap with fifth-placed Singapore is shrinking every year.

Tokyo lags behind the top three cities in terms of **Cultural Interaction** and **Accessibility**. However, with the 2020 Olympic and Paralympic Games on the horizon, the city could be positioned to turn those scores around. By speeding up redevelopment projects in central Tokyo and increasing flights to and from Haneda Airport, for example, there could be significant score improvements.

Strengths

Tokyo's score in the *World's Top 300 Companies* (#2) has been on decline since it lost the #1 position to Beijing in the GPCI-2014. However, the Japanese capital remains #1 in **Economy**, its greatest strength.

Tokyo has climbed one spot in **Cultural Interaction** to #5 overall, supported by an increase in overseas tourists and international students, particularly from China and Southeast Asia. Tokyo's *Number of Visitors from Abroad* (#9) exceeded eight million people annually, while the *Number of International Students* (#3) surpassed 50,000. This trend has been supported by the sharp depreciation of the yen since 2012.

Fig. 5-8 World's Top 300 Companies

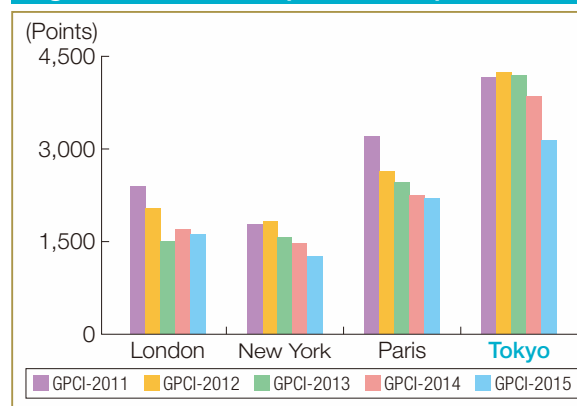
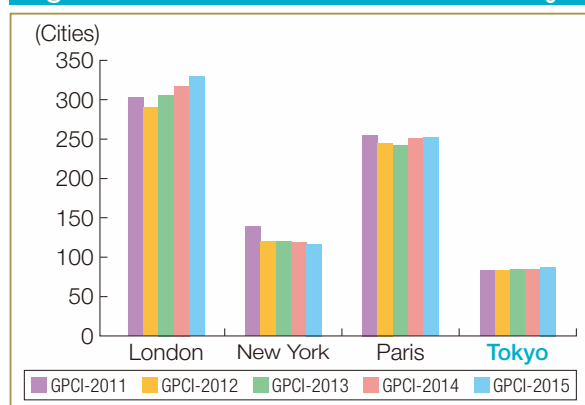


Fig. 5-9 Number of Cities with Direct International Flights



Weaknesses

In **Environment**, Tokyo does not perform well in *Percentage of Renewable Energy Used* (#32), *CO₂ Emissions* (#30) or *Percentage of Waste Recycled* (#27), indicating a need for more rigorous environmental policies.

Tokyo also failed to significantly improve its **Accessibility** score this year. The scores for *Number of Cities with Direct International Flights* (#25) and *Number of Arriving/Departing Passengers on International Flights* (#12) remain quite low. However, the Japanese government is currently implementing measures to increase the country's number of foreign visitors to 20 million annually, which may improve Tokyo's scores as well.

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