Global Power City Index 2010

Summary

October 2010

MMF INSTITUTE FOR URBAN STRATEGIES
THE MORI MEMORIAL FOUNDATION

Summary of the *Global Power City Index-2010*

Preface

The Global Power City Index evaluates and ranks the major cities of the world according to their **comprehensive power to attract creative people and excellent companies from around the world amidst an environment of increasingly strong urban competition worldwide**.

Since the release of the first Global Power City Index in 2008, The Mori Memorial Foundation has vigorously promoted its findings worldwide via the media and the foundation's website, resulting in numerous invitations to present at international symposiums in New York, Shanghai, Madrid and many other cities. The survey's findings have been quite well received and have stimulated active discussion amongst a large number of leading research institutions around the world under the topic of urban competitiveness.

The 2010 edition of the Global Power City Index has incorporated the insights gleaned from these various presentations and discussions as well as the input of experts and intellectuals in a variety of fields to enhance and improve its content and create a ranking which more closely reflects the actual comprehensive strength possessed by each global city. Furthermore, "indicator group" analysis has been added in order to more finely sort and analyze the urban "functions" used in the ranking analysis, and a clearer and more detailed examination of the strengths and weaknesses of major global cities like Tokyo has also been included.

It is hoped that the result of these changes and additions will be a better reaffirmation of the challenges faced by Tokyo and other global cities as well as what makes them appealing, and at the same time, it is hoped that the 2010 edition of the Global Power City Index will serve as an aid in government policy-making and business strategy creation.

Feature of the Global Power City Index (GPCI)

1. The GPCI is the first effort in Japan to analyze and rank comprehensive power of the world's major cities.
2. Nearly all of the rankings carried out in the past have focused on specific functions or have been country-specific; in contrast, the Global Power City Index examines a variety of functions representing the strengths of cities and uses them to create a "Comprehensive Power" ranking of the world's cities.
3. Thirty-five of the world's major cities are selected and evaluated based on six main functions representing city strength ("Economy," "Research & Development," "Cultural Interaction," "Livability," "Ecology and Natural Environment," and "Accessibility"), and four global actors who are leading the urban activities in their cities ("Managers," "Researchers," "Artists," and "Visitors") and one local actor ("Residents"), thus examining cities from multiple angles.
4. The 2009 edition of the GPCI has been improved upon in many ways, such as by revising those indicators which are independently collected and by improving the method used for indicator collection.
5. Challenges which must be addressed for Tokyo to overcome the weaknesses revealed by this ranking survey have been clarified.
6. This ranking has been produced with the involvement of academics such as Sir Peter Hall, a global authority in city planning, as well as other experts and analysts, and has been peer reviewed by third parties.

***Expanded city-specific indicators and analysis will be included in the "GPCI-2010 Year Book" scheduled for publication in early 2011**

Findings of GPCI-2010

1. Function-specific Comprehensive Ranking (p. 8)

New York, London, Paris, and Tokyo are ranked as the top four in the function-specific comprehensive ranking for 2010. This is the **third consecutive year** since the first GPCI ranking that these four cities have had these positions as the top four cities overall.

With the exception of Cairo, all cities dropped in score compared with 2009; however, the drop in score was larger for the secondary group of cities (i.e., fifth-ranked city and lower) than for the top four cities. In other words, the gap between the top four cities and the secondary group of cities from No. 5 down has widened, with **the top four cities being assessed overwhelmingly higher than those below them**.

Looking at changes in ranking reveals that five of thirteen cities in Europe and three of seven cities in North America dropped in ranking, while only three of thirteen Asian cities dropped in ranking and more than half (seven) rose in ranking. **The percentage of cities increasing in ranking is higher for Asia than Europe and North America, demonstrating a clear surge amongst the cities of Asia.**

Meanwhile, Tokyo has continued to close the score gap between itself and the top three ranked cities since 2008; it is seeing a relative increase in its position as it steadily moves closer to the top.

2. Function-specific Ranking (p. 9)

All of the top four cities in function-specific comprehensive ranking are also ranked in the top group for the functions of "Economy," "Research and Development (R&D)," "Cultural Interaction," and "Accessibility"; however, most of the cities are ranked in the middle or bottom in term of "Livability" and "Ecology and Natural Environment." Some cities not ranked in the top group in comprehensive ranking are in the top group in specific functions, demonstrating a distinct advantage with regard to them.

Tokyo has been ranked in the top five in terms of "Economy" and "Ecology and Natural Environment" since 2009. It maintains a standard with regard to these two functions which is unparalleled; no other city has maintained both at such a high level.

Meanwhile, Vancouver is ranked first in "Livability," with Osaka and Fukuoka also in the top five. As for "Ecology and Natural Environment," Zurich, Geneva and other European cities (with the exception of London and Paris) are ranked in the top five.

3. Actor-specific Ranking (p. 10)

The top four cities in terms of function-specific comprehensive ranking also rank highly in terms of all actor groups, including the four global actors driving urban activity as well as "Residents," making them attractive cities in which to work and live. European cities in the middle in comprehensive ranking are ranked highly by "Artists" and "Residents."

Meanwhile, **Tokyo ranks somewhat low amongst "Managers" and has been overtaken in Asia by Hong Kong and Singapore. It maintains only a thin lead over Shanghai and Beijing,** and Tokyo's perception amongst "Managers" is a major challenge that needs to be addressed.

4. Comparison of Top 4 Cities <Function-specific> (p. 11)

Looking at the deviation for function-specific scores amongst the top four cities; New York and London are respectively weak in "Livability" and "Ecology and Natural Environment," but their other functions are strong enough to compensate for such weakness. Paris and Tokyo both score above average in all functions, showing their overall strength as "All-round cities." Tokyo, however, is significantly lower than Paris in "Cultural Interaction," "Livability," and "Access," which is why it comes in fourth behind Paris.

On the other hand, however, **Tokyo is extremely strong in "Economy" and "R&D," and it ranks the highest amongst the top four cities in terms of "Ecology and Natural Environment."**

5. Comparison between Tokyo and Major Asian Cities <Function-specific> (p. 11)

Comparison of Tokyo with the other major cities of Asia (Singapore, Seoul, Hong Kong, Beijing and Shanghai) in individual function ranking shows great variation in strengths and weaknesses for each city.

Tokyo has a significant advantage in "Economy" and "R&D"; however, in terms of "Cultural Interaction" and "Accessibility," it has little advantage over the other major Asian cities.

In "Economy," the four major cities (Hong Kong, Beijing, Shanghai and Singapore) following Tokyo except for Seoul, demonstrate strength, but Seoul also demonstrates strength in "R&D" (after Tokyo).

With the exception of Tokyo and Shanghai, the deviation score for all of the major Asian cities in terms of "Livability" is low (under 50), and in "Ecology and Natural Environment," Beijing and Shanghai both demonstrate a particular weakness, having deviation scores under 40.

6. Analysis of the Strengths and Weaknesses of Tokyo (p. 12)

Compared with the top three cities, **Tokyo has exceedingly few indicators where its deviation score tops 70; in order to overcome this, Tokyo needs to aim to strengthen relevant indicators to put it in the upper echelons**. In particular, compared with the top three cities, Tokyo needs to strengthen its indicators in "Cultural Interaction."

Looking at strengths and weaknesses of the indicator groups, Tokyo shows great strength in such groups as "Market Attractiveness," "Economic Vitality," "Research Background," and "Shopping and Dining"; however, **Tokyo is average or below average compared with the other 35 cities in "Regulations and Risk," "Cost of Living," "Natural Environment," and "Infrastructure of International Transportation," and it has become clear that these weaknesses are the subjects needed to be overcome.**

1. GPCI-2010 Methodology

1-1. GPCI-2010 Research Organization

This ranking is created under the GPCI Committee, chaired by Heizo Takenaka, chairman of the Institute for Urban Strategies at the Mori Memorial Foundation and professor at Keio University. The Committee also includes scholars such as Sir Peter Hall, a global authority in city planning, as well as expert partners in various fields. A third-party peer review has been undertaken to ensure the fairness of the ranking.

The GPCI Committee is comprised of five members, including Sir Peter Hall, Professor at University of London as Principal Advisor and Heizo Takenaka, Professor at Keio University and the Director of the Global Security Research Institute, as Chairman. The Committee provides supervision of the ranking creation process at key point.

The Working Group, headed by Hiroo Ichikawa, Professor and Dean of the Graduate School of Governance Studies at Meiji University, as its Principal, performed research and analysis and elicited advice from expert partners worldwide regarding the perspective of global actors to help in the creation of the ranking.

In order to ensure the adequacy of the ranking creation process and results, a third-party peer review by two reviewers is undertaken which checks over the contents and provides suggestions for improvement.

The GPCI-2010 has been created under the organization shown below.

Fig. 1-1 Research Organization

1-2. Cities for GPCI-2010

Fig. 1-2　35 cities for GPCI

*Shows cities added for GPCI-2009

1-3. Ranking Creation Method

Fig. 1-3 Flow of Creation for Function-based Ranking

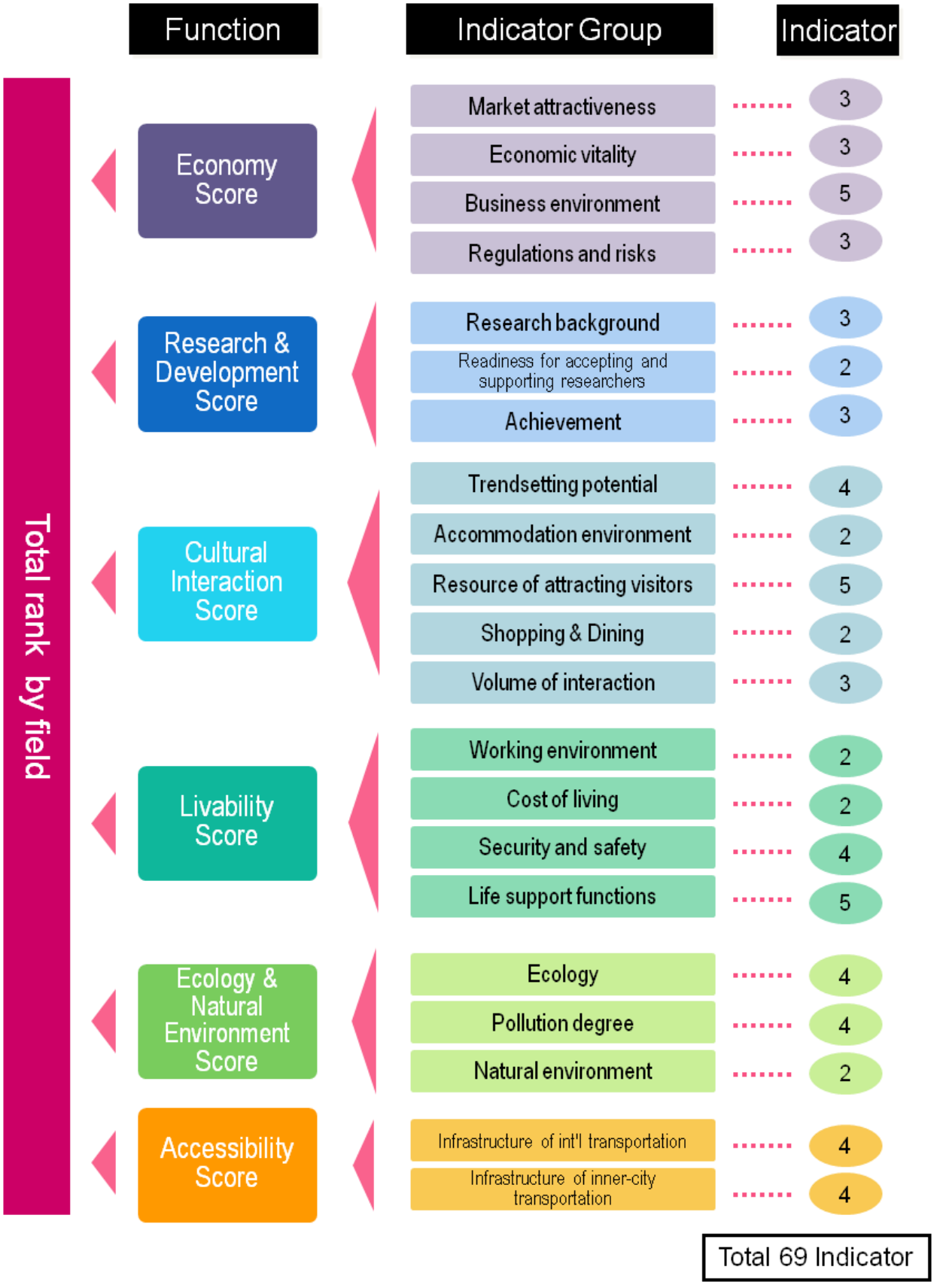
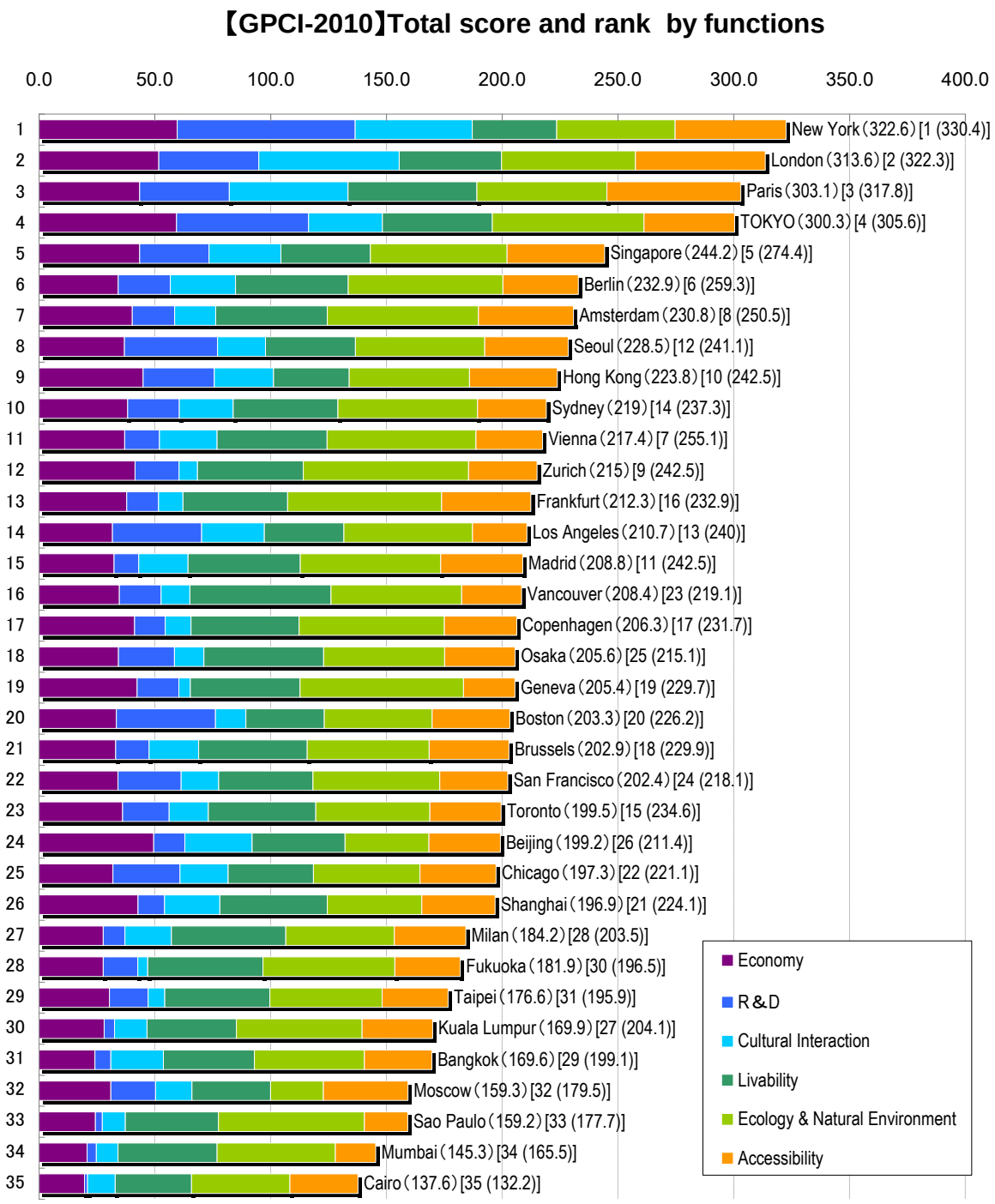


Fig. 1-4 Flow of Creation for Actor-specific Ranking

2. GPCI-2010 Results

2-1. Function-specific Comprehensive Ranking

Fig. 2-1 Comprehensive Ranking



*Numbers in [ ] are scores/rankings from the GPCI-2009

2-2. Function-specific Ranking

Table 2-1 Function-specific Ranking

Rank	Total Score		Economy		R&D		Cultural Interaction		Livability		Ecology & Natural Environment		Accessibility	
1	New York	322.6	New York	59.6	New York	76.9	London	60.6	Vancouver	61.0	Zurich	71.4	Paris	57.9
2	London	313.6	TOKYO	59.4	TOKYO	57.0	Paris	51.3	Paris	55.6	Geneva	70.5	London	56.0
3	Paris	303.1	London	51.6	London	43.3	New York	50.6	Osaka	51.6	Berlin	66.8	New York	47.8
4	TOKYO	300.3	Beijing	49.4	Boston	42.8	TOKYO	31.8	Fukuoka	49.8	Frankfurt	66.5	Singapore	42.1
5	Singapore	244.2	Hong Kong	44.9	Seoul	40.2	Singapore	31.0	Milan	49.4	TOKYO	65.4	Amsterdam	41.0
6	Berlin	232.9	Singapore	43.4	Paris	38.8	Beijing	29.1	Berlin	48.7	Amsterdam	65.3	TOKYO	39.1
7	Amsterdam	230.8	Paris	43.4	Los Angeles	38.5	Berlin	28.2	Madrid	48.6	Vienna	64.3	Frankfurt	38.5
8	Seoul	228.5	Shanghai	42.7	Hong Kong	30.7	Los Angeles	27.1	Amsterdam	48.2	Sao Paulo	63.0	Hong Kong	38.0
9	Hong Kong	223.8	Geneva	42.3	Singapore	30.0	Hong Kong	25.6	TOKYO	47.6	Copenhagen	62.7	Moscow	36.5
10	Sydney	219.0	Zurich	41.4	Chicago	28.9	Vienna	24.9	Vienna	47.5	Madrid	60.6	Seoul	36.1
11	Vienna	217.4	Copenhagen	41.2	San Francisco	27.3	Shanghai	23.9	Geneva	47.4	Sydney	60.4	Madrid	35.4
12	Zurich	215.0	Amsterdam	40.2	Osaka	24.1	Sydney	23.2	Brussels	46.9	Singapore	59.0	Brussels	34.4
13	Frankfurt	212.3	Sydney	38.2	Berlin	22.5	Bangkok	22.6	Copenhagen	46.7	London	57.8	Boston	33.5
14	Los Angeles	210.7	Frankfurt	37.9	Sydney	22.3	Brussels	21.4	Toronto	46.4	Fukuoka	56.9	Chicago	32.8
15	Madrid	208.8	Vienna	36.9	Toronto	20.1	Madrid	21.2	Shanghai	46.4	Vancouver	56.4	Berlin	32.6
16	Vancouver	208.4	Seoul	36.9	Moscow	19.4	Chicago	20.8	Zurich	45.7	Paris	56.2	Shanghai	31.6
17	Copenhagen	206.3	Toronto	36.0	Zurich	19.0	Seoul	20.7	Taipei	45.4	Seoul	55.9	Copenhagen	31.3
18	Osaka	205.6	Vancouver	34.6	Amsterdam	18.3	Milan	20.1	Frankfurt	45.2	Los Angeles	55.5	Beijing	30.9
19	Geneva	205.4	Osaka	34.3	Geneva	18.0	Amsterdam	17.7	Sydney	45.2	San Francisco	54.8	Toronto	30.8
20	Boston	203.3	Berlin	34.1	Vancouver	18.0	Toronto	16.9	London	44.3	Kuala Lumpur	54.2	Milan	30.8
21	Brussels	202.9	San Francisco	34.0	Taipei	16.7	San Francisco	16.3	Mumbai	42.7	Brussels	52.7	Kuala Lumpur	30.5
22	San Francisco	202.4	Boston	33.3	Vienna	15.1	Moscow	15.7	San Francisco	40.6	Osaka	52.3	Osaka	30.5
23	Toronto	199.5	Brussels	33.0	Fukuoka	14.9	Kuala Lumpur	14.0	Sao Paulo	40.2	Hong Kong	51.9	Sydney	29.7
24	Beijing	199.2	Madrid	32.3	Brussels	14.5	Boston	13.1	Beijing	40.1	New York	51.2	Zurich	29.6
25	Chicago	197.3	Chicago	31.9	Frankfurt	13.7	Osaka	12.8	Bangkok	39.4	Mumbai	51.1	San Francisco	29.3
26	Shanghai	196.9	Los Angeles	31.7	Beijing	13.4	Vancouver	12.4	Seoul	38.8	Toronto	49.2	Cairo	29.3
27	Milan	184.2	Moscow	30.9	Copenhagen	13.3	Cairo	12.0	Kuala Lumpur	38.7	Taipei	48.5	Bangkok	29.1
28	Fukuoka	181.9	Taipei	30.3	Shanghai	11.5	Copenhagen	11.1	Singapore	38.6	Bangkok	47.5	Vienna	28.7
29	Taipei	176.6	Kuala Lumpur	28.1	Madrid	10.7	Frankfurt	10.5	Chicago	36.9	Milan	46.9	Taipei	28.4
30	Kuala Lumpur	169.9	Fukuoka	27.7	Milan	9.4	Sao Paulo	10.0	New York	36.5	Boston	46.6	Fukuoka	28.3
31	Bangkok	169.6	Milan	27.7	Bangkok	6.9	Mumbai	9.4	Los Angeles	34.3	Chicago	46.0	Vancouver	25.9
32	Moscow	159.3	Sao Paulo	24.3	Kuala Lumpur	4.4	Zurich	8.0	Moscow	34.0	Cairo	42.5	Los Angeles	23.5
33	Sao Paulo	159.2	Bangkok	24.1	Mumbai	3.9	Taipei	7.2	Boston	33.9	Shanghai	40.8	Geneva	22.2
34	Mumbai	145.3	Mumbai	20.8	Sao Paulo	3.0	Geneva	5.0	Cairo	33.0	Beijing	36.3	Sao Paulo	18.8
35	Cairo	137.6	Cairo	19.6	Cairo	1.2	Fukuoka	4.3	Hong Kong	32.7	Moscow	22.8	Mumbai	17.4

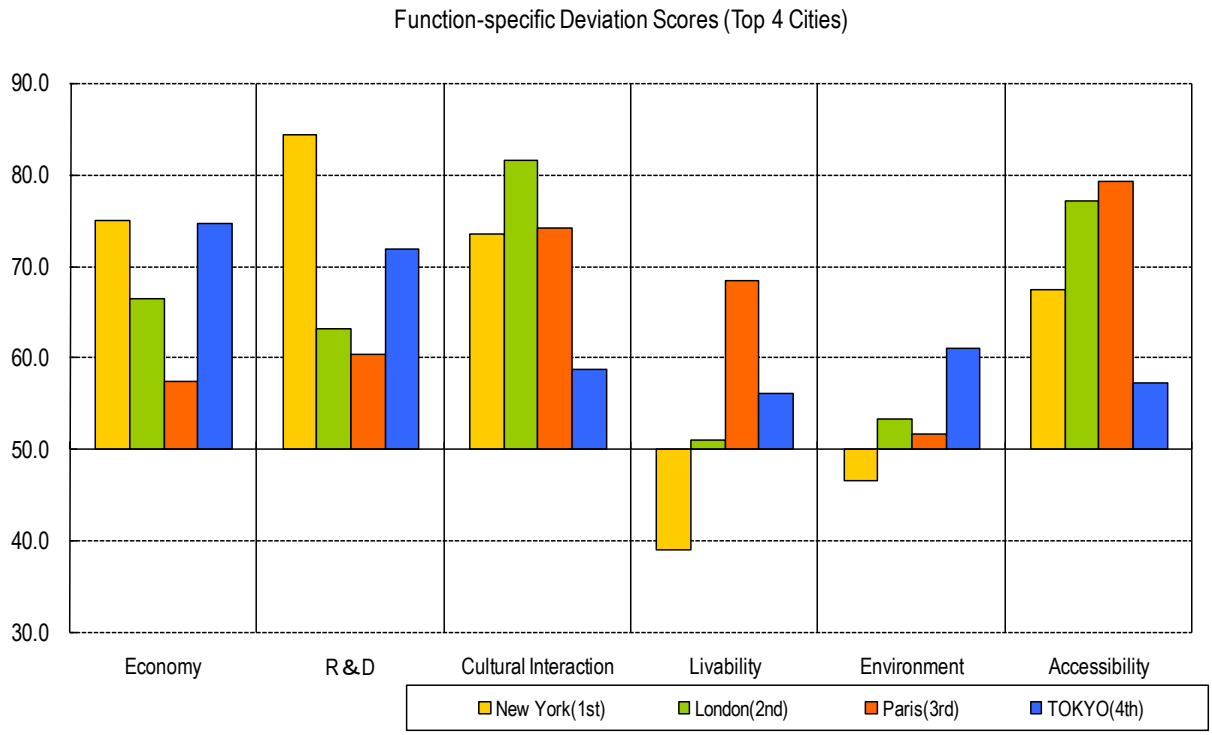
2-3. Actor-specific Ranking

Table 2-2 Actor-specific Ranking

Rank	Manager		Researcher		Artist		Visitor		Resident	
1	New York	53.7	New York	63.8	Paris	60.0	London	53.8	Paris	60.7
2	London	53.7	TOKYO	53.9	London	51.8	New York	51.8	London	54.4
3	Singapore	50.4	London	47.7	New York	51.4	Paris	51.6	TOKYO	53.7
4	Hong Kong	47.7	Paris	47.6	TOKYO	46.6	TOKYO	43.3	Zurich	51.4
5	TOKYO	46.9	Boston	36.2	Berlin	46.2	Beijing	42.1	New York	51.1
6	Shanghai	46.1	Seoul	35.5	Vienna	38.8	Shanghai	39.0	Berlin	49.5
7	Paris	45.9	Los Angeles	33.5	Los Angeles	36.5	Berlin	38.6	Frankfurt	49.0
8	Beijing	45.4	Singapore	33.2	Amsterdam	36.5	Hong Kong	37.9	Geneva	48.0
9	Zurich	43.0	San Francisco	30.7	San Francisco	33.5	Singapore	37.0	Vienna	47.8
10	Geneva	42.8	Hong Kong	29.0	Milan	33.5	Vienna	36.4	Vancouver	47.7
11	Amsterdam	41.7	Chicago	28.0	Madrid	32.9	Seoul	35.6	Amsterdam	47.6
12	Vancouver	41.1	Berlin	27.9	Brussels	31.3	Madrid	35.4	Brussels	47.4
13	Seoul	41.1	Sydney	27.9	Chicago	30.6	Milan	34.0	Copenhagen	47.1
14	Copenhagen	41.0	Vancouver	27.1	Toronto	30.3	Brussels	33.6	Osaka	45.6
15	Vienna	40.1	Amsterdam	26.9	Beijing	30.1	Amsterdam	33.3	Milan	45.2
16	Toronto	39.0	Osaka	25.5	Copenhagen	30.0	Bangkok	32.3	Hong Kong	44.5
17	Madrid	37.9	Zurich	25.0	Vancouver	29.0	Osaka	31.3	Boston	42.7
18	Boston	37.4	Copenhagen	24.9	Sydney	28.7	Toronto	31.0	Fukuoka	42.2
19	Sydney	36.7	Geneva	24.6	Shanghai	27.8	Sydney	30.5	Sydney	42.2
20	Berlin	36.6	Vienna	24.2	Osaka	27.6	Taipei	29.6	San Francisco	42.1
21	Frankfurt	36.5	Toronto	23.6	Frankfurt	27.0	Vancouver	29.0	Seoul	41.9
22	Taipei	36.1	Beijing	23.5	Seoul	26.1	Chicago	28.9	Toronto	40.9
23	Brussels	36.1	Brussels	22.3	Boston	25.8	Cairo	27.9	Madrid	40.9
24	Kuala Lumpur	35.9	Shanghai	21.4	Bangkok	25.6	Frankfurt	27.8	Beijing	40.4
25	Chicago	35.3	Taipei	21.2	Moscow	24.7	Los Angeles	26.9	Taipei	40.2
26	Osaka	34.7	Moscow	21.1	Taipei	24.7	Boston	26.8	Shanghai	37.3
27	Los Angeles	34.2	Milan	18.6	Singapore	24.4	Zurich	26.6	Singapore	36.8
28	San Francisco	32.9	Frankfurt	18.2	Kuala Lumpur	24.2	Copenhagen	26.3	Los Angeles	35.4
29	Moscow	32.6	Fukuoka	17.6	Sao Paulo	24.1	Kuala Lumpur	26.2	Chicago	34.9
30	Fukuoka	31.7	Madrid	17.3	Zurich	23.8	Fukuoka	25.2	Bangkok	29.9
31	Bangkok	31.5	Bangkok	16.1	Fukuoka	23.6	Moscow	24.5	Mumbai	27.5
32	Milan	29.7	Kuala Lumpur	14.4	Mumbai	23.0	San Francisco	24.3	Sao Paulo	26.7
33	Mumbai	26.5	Sao Paulo	14.3	Geneva	22.6	Geneva	23.2	Moscow	25.9
34	Cairo	26.4	Mumbai	12.3	Cairo	20.9	Mumbai	22.9	Cairo	25.0
35	Sao Paulo	25.1	Cairo	8.5	Hong Kong	20.7	Sao Paulo	19.0	Kuala Lumpur	23.4

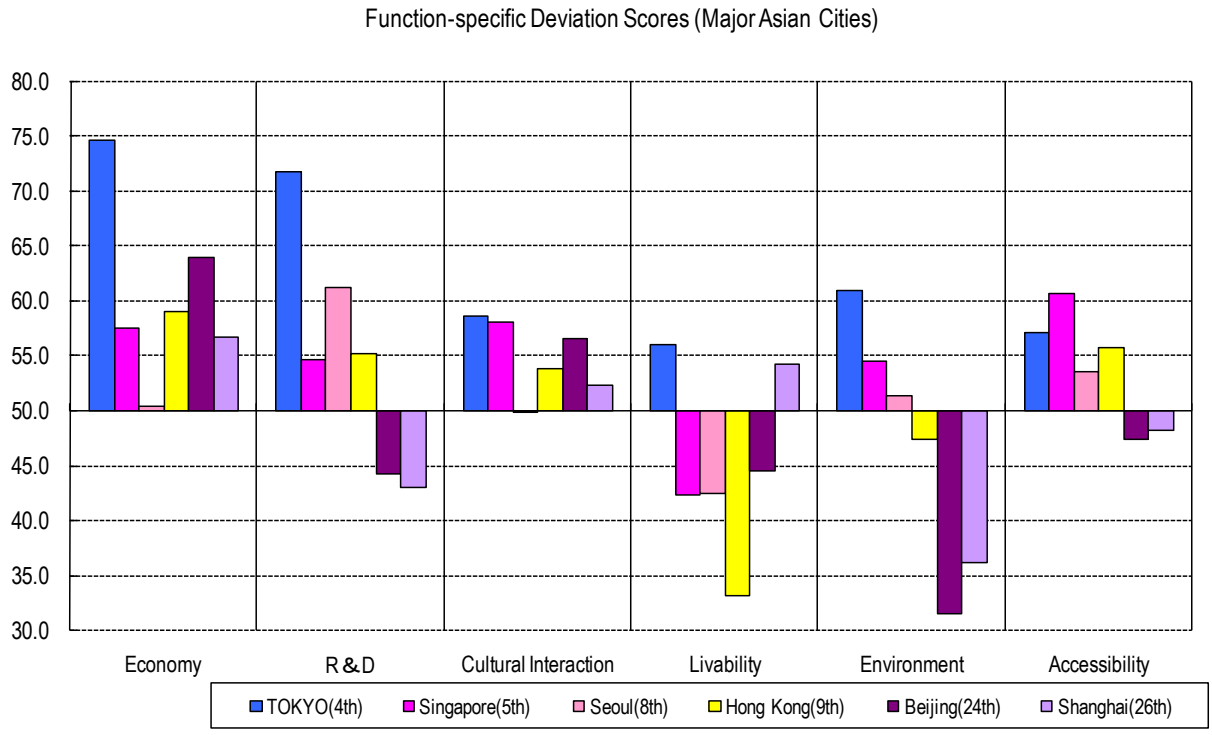
2-4. Comparison of Top 4 Cities

Fig. 2-2 Function-specific Deviation Scores



2-5. Comparison of Major Asian Cities

Fig. 2-3 Function-specific Deviation Scores

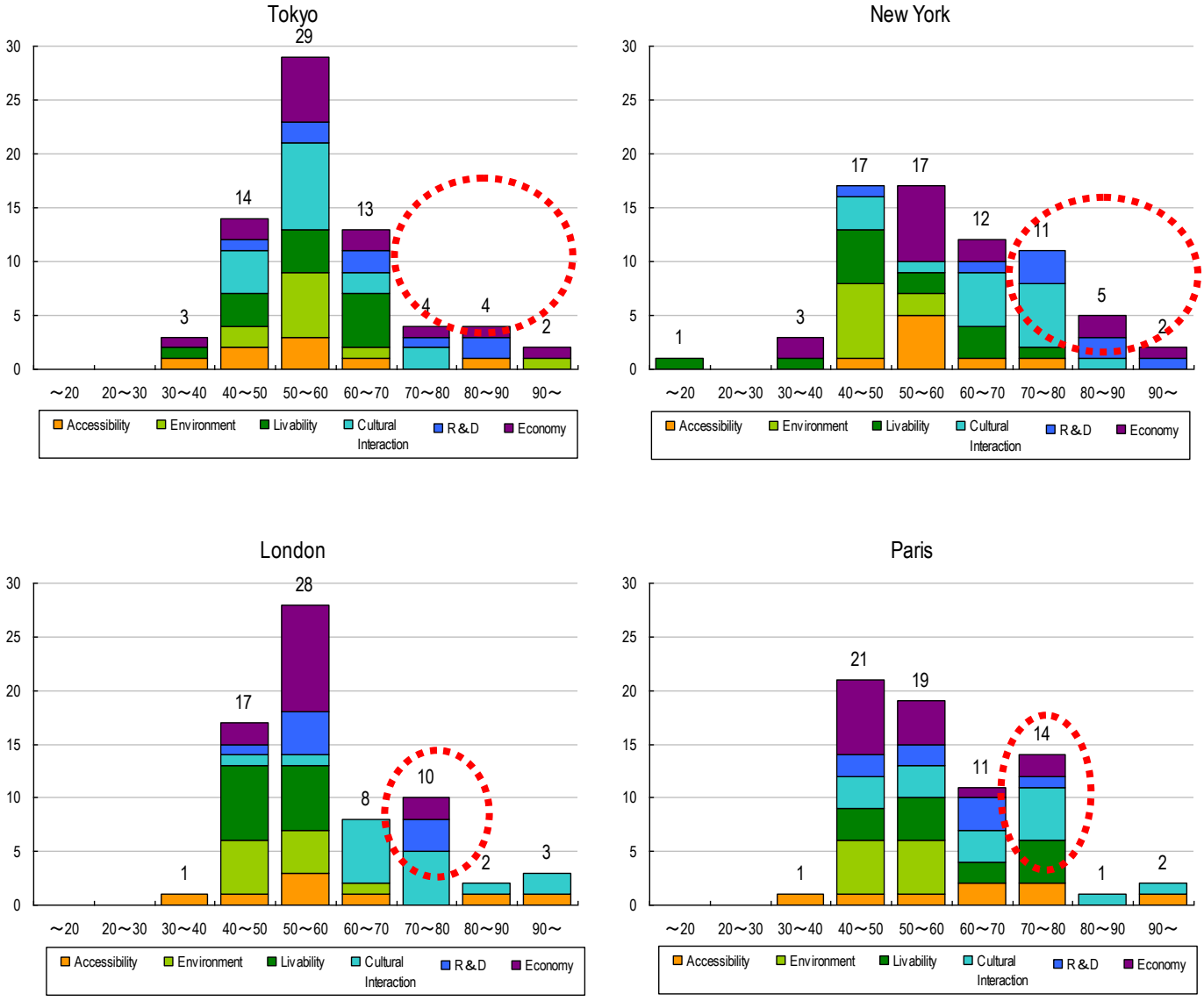


2-6. Analysis of the Strengths and Weaknesses of Tokyo

(1) Distribution of Top 4 Cities' Number of Indicators in Deviation Scores

- Comparing the top three cities and Tokyo, there are very few indicators which show a notably large gap, i.e… a deviation score of 70 or more.

Fig. 2-4 Distribution of Top 4 Cities' Number of Indicators in Deviation Scores (Tokyo, N.Y., London, Paris)

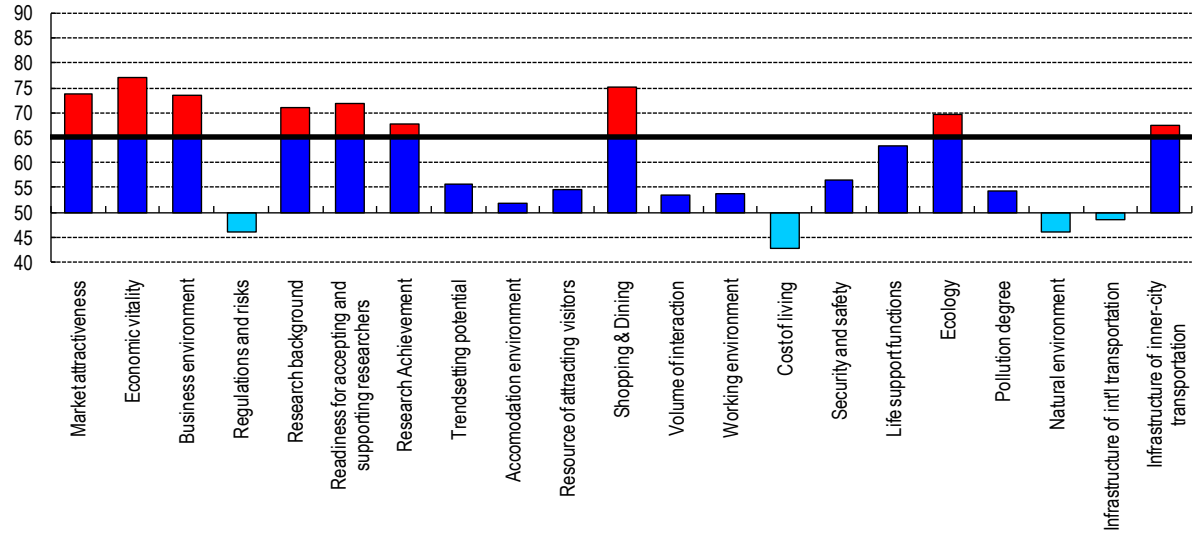


(2) Tokyo's Strengths and Weaknesses by Indicator Group

- Looking at deviation scores by indicator group, Tokyo's strengths relative to other cities (i.e., indicator groups where Tokyo's deviation score is 65 or higher) are found primarily in the functions of "Economy" and "R&D" as well as in the "Ecology" indicator group within the function of "Ecology and Natural Environment."
- Particularly weak indicator groups relative to other cities (i.e., indicator groups where Tokyo's deviation score is 50 or lower) are "Regulations and Risk" (in the "Economy" function), "Cost of Living" (in the" Livability" function), "Natural Environment" (in the "Ecology and Natural Environment" function), and "Infrastructure of International Transportation" (in the "Accessibility" function).

Tokyo's Strengths (65 or higher)		Tokyo's Weaknesses Compared to the Top Four Cities (50 – 65)		Tokyo's Weaknesses (50 or lower)	
Function	Indicator Group	Function	Indicator Group	Function	Indicator Group
Economy	Market attractiveness	Cultural Interaction	Trendsetting potential	Economy	Regulations and risks
	Economic vitality		Accommodation environment	Livability	Cost of living
	Business environment		Resources for attracting visitors	Ecology and Natural Environment	Natural environment
Research and Development	Research background		Volume of interaction	Accessibility	Infrastructure of international transportation
	Readiness for accepting and supporting researchers	Livability	Working environment		
	Research Achievement		Security and safety		
Cultural Interaction	Shopping and dining		Life support functions		
Ecology and Natural Environment	Ecology	Ecology and Natural Environment	Pollution degree		
Accessibility	Infrastructure of inner-city transportation				

Fig. 2-5 Indicator Group Deviation Score Distribution (Tokyo)



Reference: Promotion of the Global Power City Index

Since the release of the first Global Power City Index (GPCI) in 2008, The Mori Memorial Foundation has been invited to numerous international symposiums in cities such as New York, Shanghai, and Seoul, where it has enthusiastically presented its findings. The GPCI has also stimulated active discussions amongst a large number of leading research institutions around the world under the topic of urban competitiveness.

The GPCI is recognized as a high-quality city ranking, receiving such distinctions as being selected at the “First City Ranking International Meeting” in Madrid as the best globally-released city ranking.

At major websites worldwide, the GPCI is introduced as one of the major global city assessments following the GaWC and GCI.

Since the release of the GPCI-2009 in October 2009, it has become widely recognized worldwide as a highly regarded city ranking, as evidenced by the fact that it has been downloaded 63,000 times (roughly 30,000 downloads within Japan and 30,000 downloads from overseas).

Madrid

Istanbul

Hong Kong

New York

San Francisco

Nanjing

Gyeonggi

Incheon

Jeju

Shanghai

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Global Power City Index 2010

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2. London
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8. Seoul
9. Hong Kong
10. Sydney
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12. Zurich
13. Frankfurt
14. Los Angeles
15. Madrid
16. Vancouver
17. Copenhagen
18. Osaka
19. Geneva
20. Boston
21. Brussels
22. San Francisco
23. Toronto
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