



The
GLOBAL URBAN
COMPETITIVENESS
REPORT
— 2010 —



Pengfei Ni *and* Peter Karl Kresl

The Global Urban Competitiveness Report – 2010

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IN ASSOCIATION WITH THE CHINESE ACADEMY OF SOCIAL SCIENCES

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ABOUT THE GUCP

The Global Urban Competitiveness Project (GUCP) was initiated by Professor Peter Karl Kresl (Bucknell University, USA) and Professor Pengfei Ni (Chinese Academy of Social Sciences, China) during the first international forum on urban competitiveness in August 2004. The GUCP, which was founded in Ottawa in April 2005, is a sustainable project on global urban competitiveness. It aims to gather specialists and experts who are interested in urban competitiveness to conduct research. The GUCP has a committee, in which Professor Peter Karl Kresl is President and Professor Pengfei Ni is General Secretary. The Secretariat of the committee is situated at the Institute of Finance and Trade Economics (IFTE), Chinese Academy of Social Sciences (CASS) Beijing, China.

The aims of the GUCP are to:

1. analyze aspects of the competitiveness of the world's urban regions,
2. promote better communication among those who are doing research on urban competitiveness,
3. enhance contact between researchers and practitioners in urban governance and leadership positions,
4. encourage more effective economic strategic planning in cities throughout the world,
5. help to make municipal leaders more able to enhance the competitiveness of their regions and thereby to improve the economic futures of the residents of these regions, and
6. increase the interest in and research in urban competitiveness on the part of researchers in both industrialized and developing economies.

To achieve these aims the GUCP engages in:

1. in-depth academic research on urban competitiveness, holding one or more international conferences each year on the general topic of urban competitiveness,
2. policy research and policy briefing workshops from a global perspective that contributes constructively to urban government policy deliberations, and
3. executive training and research program for urban government in both industrialized and developing economies.

The Secretariat of GUCP is situated at the Institute of Finance and Trade Economics, CASS. Its mailing address is:

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Prologue 1

It is readily apparent to the reader who is familiar with the study of urban competitiveness that the *Global Urban Competitiveness Report – 2010* (the Report) is a work of major importance. It is quite extraordinary that Pengfei Ni and his team at the Chinese Academy for Social Sciences have been able to gather comparable data on 500 cities and to gain from this data so many valuable insights. While this achievement is of importance in itself, of at least equal benefit is the use that can be made of this work by decision-makers in cities around the world as they design and implement strategic economic planning initiatives. In this brief commentary on the Report, I would like to speak of both of these aspects.

Outside of government departments, there are few places in the world that could put together a team of about one hundred researchers and students having command of a dozen of the world's major languages – and that could devote a year to the project. Fully aware of the difficulties of getting comparable data for many variables for many cities on all continents, Professor Ni and his team confined themselves to international agencies such as the United Nations, the World Bank, the International Monetary Fund and the Organisation for Economic Co-operation and Development, and, with care, to national statistical agencies. This was supplemented by findings from academic researchers and other reliable sources. Given the need for comparable data, it was necessary to limit the scope to nine indices on aspects of gross domestic product (GDP), prices, growth, patents and employment. Indeed, some cities had to be excluded from the study because of the unreliability of the data that were available. This work generates the overall urban competitiveness ranking of 500 cities. Using this body of data, Professor Ni and his colleagues place the cities into one of eight 'city types', of which more will be said shortly.

In addition to the competitiveness ranking, for each city analysis is presented for seven sectors of the economy, such as industrial structure, human resources, the living environment, and so on. Each of these sectoral indices is the result of data for four to seven variables relating to aspects of each sector; for example, for human resources the variables include education, health, and literacy. Again, while one would have been able to include many other variables if doing a study on just cities in the USA, Mexico or China (three countries for which adequate data are readily available), for a study that includes 500 cities in scores of countries this is not possible. Nonetheless, the comprehensiveness of the variables included in the overall study gives one a clear and solid understanding of the situation of each of the 500 cities in relation to other cities that might be considered to be its competitors.

The full methodology and sources of data are given extensive explication in Chapters 1 and 2, and in Appendix 1; from these the reader will be able to gain an appreciation for the thoroughness and diligence with which the team from CASS carried out this project. Since the reader will have the Report in his or her hands, I will not be specific as to what

parts of the Report contain; needless to say, they are a must read for a true appreciation of the quality of the results of this project. The consistency of the methodology of this project in its several annual updates gives an invaluable survey of the evaluation of the evolving competitive situation and development of the areas of relative strength and weakness of each of the 500 cities.

As has been regularly noted in documents and research papers of the Global Urban Competitiveness Project (GUCP), of which Pengfei Ni is General Secretary,¹ our objective has always been that of giving assistance to local officials and planners when designing and implementing a strategic economic plan for their city or urban region. Several of our members have focused on key aspects or strategies for competitiveness enhancement. For example, Leo van den Berg has written on culture and competitiveness,² Bill Lever on centers of technology,³ Pierre-Paul Proulx on globalization and city-regional development and policy,⁴ Shen Jianfa on urban economic regions, Antonio Serrano on city systems⁵ and Dong Song Cho on creation of competitiveness de nouveau in Dubai. In the USA, Mexico and China we have been fortunate in being able to have access to sufficient data for a large number of variables and city/urban regions to do empirical studies of the competitiveness of cities in each of these countries. Jaime Sobrino has written on Mexico,⁶ Pengfei Ni on China⁷ and I on the United States (and Canada).⁸ These results have given local leaders in each city an understanding of the relative strengths and weaknesses of their urban economy. This understanding can then be used in strategic economic planning by suggesting areas in which the city or urban region needs to implement policies to improve performance in areas of weakness – such as the transportation infrastructure, cultural and educational assets, the structure of industry or characteristics of the labor force, to mention just a few. It also indicates areas that must be maintained to retain its degree of competitiveness.

The fifth *Global Urban Competitiveness Report* is, thus, an excellent tool for strategic economic planning. For such an initiative to be successful, there must be effective governance, an understanding of which individual or entity will provide leadership and assessment of performance, municipal leadership that can mobilize and energize local human assets, tangible assets, such as transportation, cultural and educational institutions, a clear definition of tasks and targets for all participants, and a clear understanding of the city's strengths and weaknesses. Often city leaders feel satisfied and self-congratulatory when they have put in place a conference center or educational institution, when if they would look more widely they would discover that their competitor cities have just done the same thing and that their efforts have done little more than keep them in their original competitive position. What studies such as this Report do is give city leaders a comprehensive, objective understanding of just how their city stacks up against all the other 500 cities.

The reader can appreciate how beneficial this information can be by examining Chapter 5 and, especially, Chapter 6 of the Report. Here, explicit scores and rankings are given for each of the dozens of variables for which data have been gathered. The results presented may at first appear overwhelming in extent and detail, but the reader will discover a wealth of fascinating detail and description of the 500 cities – an extended perusal of these chapters will certainly be worthwhile. One will certainly have questions with regard to the score of a city one knows quite well and wonder whether the Report has got it right. But scores and rankings give one a base for a reasoned discussion with regard to

the true attributes of any city. And presumably some sort of ‘law of large numbers’ will cause these concerns to be evened out in the aggregate.

To demonstrate the value of this work to a city strategic planner, let us examine one of the 500 cities – my original hometown, Chicago. Chicagoans have a right to be proud – their city is ranked number 10 out of 500, between San Francisco and Toronto and below New York, London, Tokyo, Paris, Washington, Los Angeles, Stockholm and Singapore. The question that must be raised by city leaders is that of what they ought to be doing to enhance the competitiveness of Chicago? We gain an understanding of this when we look at the positioning of the city in some of the individual indicators. Chicago is scored very high in corporate culture, enterprise management, industry structure, development of its manufacturing, service and financial sectors, educational development, hard environment, science, technology and innovation, ‘soft’ factors such as government services and management, strategy and experience, connectivity, and transportation, among others. Areas of weakness include enterprise operation, brand, enterprise performance, status of labor market, literacy, status of talent, cost of labor, basic elements, and housing. For a full understanding one would have to examine the situation with the several variables that are behind each of these indicators. Those familiar with Chicago will wonder how a city with its world famous Chicago Symphony and Art Institute, a lively blues culture and one of the country’s most innovative theater communities can be ranked number 143 in ‘Culture and Entertainment’ below Detroit, Cincinnati and St Louis, with New York and Philadelphia. But one would have to examine more carefully the component elements in that particular indicator before commenting definitively.

Each of the indicators of relative strength and weakness are comprised of several variables rather than just the familiar and habitually used. This indicates the real value of this Report; it uses data to give an objective understanding of a city’s strengths and weaknesses by placing familiar impressions in contexts that are, perhaps, more broadly focused than is usually the case. It would certainly be useful for officials in Chicago, New York and Philadelphia to examine carefully this and other indices to see what is being captured by the work of Pengfei Ni and his colleagues. If they find the methodology or definitions to be not useful they can ignore that aspect of the Report; but it is certainly possible that they will find that the Report is telling them something that is indeed worth understanding.

Essentially, city officials have three options for using the findings of the Report in their strategic economic planning. First, they can identify areas of strength that they should work to maintain. Second, they can identify areas of weakness that can be improved with some effort at policy design and implementation. These two areas should be included as components in their strategic economic plan for enhancement of the city’s relative competitiveness. Third, there will be areas that city leaders in their intimate knowledge of the situation will declare to be of little interest given the strategic thrust that has been decided upon, or that will be impossible to achieve with a reasonable expenditure of time and resources, or on which they with their intimate knowledge of the local situation simply disagree about with the team at CASS. This exercise in triage is essential for the effective mobilization and utilization of local and other resources, for the definition of central strategic thrusts, and for proper assessment of performance and measurement of success or failure.

Mention was made above of the eight types of cities that have emerged from this work.

These ‘city types’ are an additional asset for city planners in that they provide a general categorization for each of the 500 cities and allow those who are responsible for policy to put their city in a set of other cities with the same categorization. From this they should be able to be more efficient in their work and have reference points when they look to the actions of other cities. If a number of cities are in the same category, they should be able to observe what policies have been tried in similar cities and which have succeeded and which have failed. This understanding will certainly improve their effectiveness. The Report has separated 500 cities into the eight types.

I understand that repeating this listing is a bit redundant, since the material is presented in the Report, but I wanted to emphasize the benefit this could give to city officials. The first thing to note is that the types are all based on general performance categories – growth, per capita income and innovation capacity. There is no preference for cities that succeed as centers of learning, or research and development, or high-tech manufacturing, or logistics, or any other specific economic specialization. In most of the eight types of cities there would probably be cities of each specific specialization, all generating the same general performance success or failure. Similarly, none of the specialization ensures success or guarantees failure. Success arises from a city’s ability to discern the specialization that is most promising for it, given its particular assets, resources and aspirations. Failure indicates poor execution and mobilization of local resources, or selection of an inappropriate or unsuitable specialization and strategic thrust.

Urban competitiveness has attracted great attention from economists, geographers and local governments in recent years. Many research results are available now, both, as has been noted above, at the level of the national economy and, with publication of this important Report, at the global level. However most of the non-GUCP research results are based on realization of asserted or preferred elements in the economic activity of an urban region or a city. Many researchers assume that a high-technology (high-tech) center, bio-pharmaceutical activity, information communications technology, or some specific industry cluster will serve as the only reliable element that drives urban economic development everywhere. If a city has put in place these competitiveness elements, it is often asserted that it will then enjoy stronger urban competitiveness. However, some cities are quite successful as centers of administration, culture, research and development, niche manufacturing or logistics. They are very successful in that they provide the job opportunities, incomes, social structure and cohesion, urban amenities and natural environments that are most satisfying to their residents. In the GUCP we are of the opinion that this is the best indicator of urban competitiveness: economic development that meets the aspirations of a city’s residents rather than just success in establishing an industrial sector or cluster that is favored by the consultants today. The *Global Urban Competitiveness Report – 2010* is a prime example of how this approach can be used to the benefit of local officials and planners.

In these comments I have endeavored to give the reader a comprehension of what is in the Report, why it is of importance to researchers on urban competitiveness and of value to local officials and planners, and an incentive to read it carefully. The Report’s rich collection of data and the sophisticated methodology ensure that its results will be taken seriously and will serve as a contribution to effective urban strategic economic planning.

The release of the *Global Urban Competitiveness Report – 2010* is indeed a welcome event. Professor Pengfei Ni and his colleagues at the Chinese Academy of Social Sciences

have been engaged in urban competitiveness research for more than ten years. Previous urban competitiveness reports were only available in Chinese versions. As a result, scholars and government officials in other countries did not have access to their research results. Fortunately, with this Report, that will no longer be the case.

Peter Karl Kresl
President, GUCP
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NOTES

1. See our website: www.gucp.org.
2. Leo van den Berg and Antonio Paolo Russo (2007), *The Impacts of Culture on the Economic Development of Cities*, Rotterdam: EURICUR.
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5. Antonio Serrano (2003), 'Forecasting economic development using urban competitiveness and attractiveness factors', proceedings of the Regional Science Association Congress, St Andrews, Scotland, 20–22 August.
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8. Peter Karl Kresl and Balwant Singh (1999), 'Competitiveness and the urban economy: the experience of 24 large U.S. metropolitan areas', *Urban Studies*, 36(May), 1017–27; Peter Karl Kresl and Pierre-Paul Proulx (2000), 'Montreal's place in the North American economy', *The American Review of Canadian Studies*, 30(3), 283–314.

Prologue 2

Economic globalization and the development of information technology have enabled cities to achieve greater and greater significance in global economic activities. With increasingly fierce competition among cities, improving urban competitiveness is becoming an important strategic issue to cities, companies and countries in the world. To conduct further research and discussion on this issue, Professor Peter Karl Kresl and I initiated the Global Urban Competitiveness Research Project (GUCP) group, made up of scholars with interests in urban competitiveness from several countries. We decided to hold an international forum on urban competitiveness every year. To provide global cities, companies and the public with comparative information and decision-making reference on urban competitiveness, we decided to release a *Global Urban Competitiveness Report* every two years. It is a hard and pioneering job. The report for the years 2007–08 was completed by members of the Secretariat under the leadership of Professor Pengfei Ni, the General Secretary of GUCP. Great support and assistance has been received from Professor Kresl and members of the GUCP, the Chinese Academy of Social Sciences (CASS) and its Finance and Trade Institute, urban research experts from several countries, and governments of some major cities in the world. The Report was made possible by more than one year of efforts on theoretical innovation, data collection, on-site investigation, and data processing and analysis.

A comprehensive comparison on 500 cities in the world, focused analysis on 150 cities, and case studies on the top ten cities of urban competitiveness are available in the *Global Urban Competitiveness Report – 2010*.

The research has received great support from many cities in the world. After determining sample cities, the project group contacted mayors and officials of involved cities, including London, Sydney, Vienna, Zurich, Paris, Hamburg, Glasgow, Florence, Toronto and Vancouver, and received responses. The involved cities provided support, responded with related materials or appointed their representatives in China to contact us. In 2007, the project group visited Canada and conducted on-site investigations there. Federal authorities, the Mayor of Toronto and officials of Vancouver met members of the project group and introduced information on urban development to them. In 2008 local authorities of some cities in Europe welcomed queries from the GUCP. After determining the topic, they started the work of finding global partners. Around 100 scholars around the world have joined the research.

The research work is tremendous and features great difficulties. The secretariat has recruited around 100 graduate students from universities in Beijing and other areas of China to accomplish the research. After more than one year of great effort, the work was completed on time. Professor Pengfei Ni decided the basic theories, index system, research framework and key conclusions. Dr Qinghu Hou worked on econometrics. Dr Fengyong Lv, Dr Jin Huang and Ms Xiaolan Yang collected and organized the data. Yao Zhang, Jie Gao and Zizhong Wang coordinated the compiling and editing efforts.

After refining the theories, collecting data, making econometric analyses and drawing main conclusions, the authors accomplished the compilation of the Report, and they are listed as follows: Pengfei Ni, Qinghu Hou, Fengyong Lv, Jin Huang, Yang Xiaolan, Yao Zhang, Wu Zhang and Jie Gao.

Finally, Professor Peter Karl Kresl, Professor Pengfei Ni and Professor Jianfa Shen revised and edited the Report in English.

Although we have tried our best to accomplish the task, there may still be room for improvement in the Report due to the limitation of our ability. We are looking forward to comments and suggestions from global municipal officials and urban research experts. Your input will help greatly in turning the Report into one of the most useful references on global urban development.

Pengfei Ni
General Secretary, GUCP
Professor of Economics, Chinese Academy of Social Sciences

1. The conceptual framework and index system

There have been scores of benchmarking studies of a city's standing with regard to other cities based on economic, social, business, retirement, education, culture and many other factors. The work in this report differs significantly in several ways. First is its extent. Almost all other benchmarking studies have limited themselves to cities of one country or region or type. This report included 500 cities from all continents and all states of development. For this reason the concepts and variables used in this exercise may strike the reader as being occasionally a bit curious. This is necessarily the case since we include data on enterprises that range from the most sophisticated and advanced in their structure and operation to those that operate in countries in which the level of economic development and the norms for doing things are quite different. Nonetheless, we are fully convinced that the variables used do capture the essence of what it is we are trying to measure.

Second is the methodology. Other studies are very simple in their methodology. They take several variables that relate to the aspect they are seeking to evaluate, determine the ranking of each city and then sum the positions to ascertain the place of each city in the hierarchy. In this report, the methodology is far more sophisticated, as the reader will learn from this chapter and Chapter 2. While this material may not be of great interest to many readers, who may wish to skip to Chapter 3, it is our duty to be clear with regard to methodology for those who are specialists in this area of research.

Global urban competitiveness is defined as a city's ability to attract and transform resources, to control and dominate the market, thus creating more wealth in a faster and better manner as well as providing welfare for its citizens. This is the result of the combination of urban enterprise operational elements with industrial systems in comparison with other cities in the world. In the light of the definition, there are two conceptual frameworks for global urban competitiveness and two index systems for the input and the output.

THE ENTERPRISE FRAMEWORK

The root of city economic competitiveness is based on its capacity to create values and provide welfare to customers. Basically, wealth or value is created by people organized by enterprises. Let us assume that benefits from city values are equal to the total amount of benefits created by all enterprises in the city, and then we can analyze city competitiveness (that is, benefits from city values and capacities) by analyzing the benefits created from city enterprises' production. In other words, this chapter presents an approach to describing and analyzing the operations of firms and basic economic processes that are explicitly appropriate to analysis and measurement of urban competitiveness in this report. As such it differs from the standard textbook treatment.

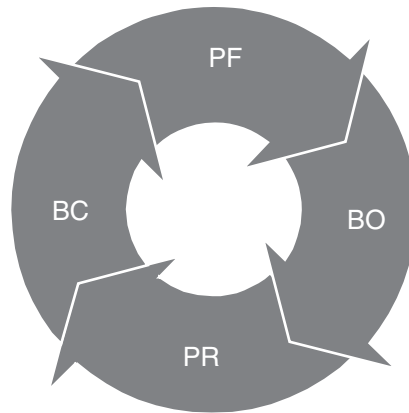


Figure 1.1 Enterprise operation process life cycle

Enterprise Operation Process Life Cycle

In the structure of a market economy, the basic target for enterprise development is to obtain the maximum benefits. In order to understand the benefits of enterprise operations, we must carefully analyze all activities in the operation of enterprises. What does an enterprise produce or manage? Where does the enterprise produce and manage? What is the total output of its production? All depend on whether the links in the enterprise operation have the right conditions for operation, and the difference between the output of the firm and its costs.¹

Based on the enterprise life cycle, a manufacturer will have the following basic activities: preparation and founding, business operation, performing responsibilities and, perhaps, bankruptcy and closure (see Figure 1.1).

1 Preparation and founding (PF)

Normally, the enterprise preparation and founding process includes research, selection of business scope, selection of location, policy-making, opening registry, labor employment, financing, purchasing equipment and gaining access to technologies and so on. Normally, in this phase, the enterprise will carry out feasibility research. Then it will decide what to produce and operate, namely, the scope of business and service. Also, the enterprise will apply for government authorization. Then, the enterprise will decide who will operate the business and in what ways to operate, that is, it will decide upon the structure of enterprise stock ownership, operation and organization as well as the development strategy. Also, the enterprise will decide where to locate the business. Afterwards, the enterprise will achieve incorporation and go through all the other legal issues and formalities. Finally, the enterprise will hire management staff, technical experts and other staff as well as raise capital from the issuance of shares in the capital market. As the enterprise develops, its business will be expanded, including business scale and scope, and it will introduce new businesses. Enterprise development will often entail expansion of facilities and new locations.

2 Business operation (BO)

Business operation involves the operational activities of an enterprise. Different enterprises in different industries may be involved in different business activities. For manufacturing enterprises, the activities are complete and standard, normally including the four steps of research and development (R&D), production, marketing and refuse disposal cycles. Research and development includes design, production and improvement of processing technologies; production includes purchasing, product development, systematic production, final processing, quality control, packaging and inventory management; marketing includes distribution logistics, wholesale/retail/advertisement/brand management and after-sales service; and the treatment cycle includes disposal and recycle processes. Service industries are different from manufacturing industries but also include similar activities.

3 Performing responsibilities (PR)

As part of society, enterprises will not only carry out their own businesses, but also undertake certain social responsibilities, which normally include execution of a contract, paying taxes and making social contributions. The execution of a contract means execution of commercial contracts in business activities under the condition of adherence to national and local laws and execution of national lawful obligations; paying taxes includes payment of central (federal) and local taxes and related administration charges; and making a social contribution is one of the social responsibilities that an enterprise carries out.

4 Bankrupt and closure (BC)

A failing enterprise may be closed or file for bankruptcy when encountering difficulties in business operation or for other reasons, and such activities lead to communication with government and other social institutions.

Composition of Enterprise Operation Costs and Benefits

In every phase of enterprise pre-planning and establishment, business operation, performing responsibilities as well as bankruptcy and closure, all activities will require costs and create values directly or indirectly, or create conditions for value creation. Table 1.1 shows the basic structure of enterprise costs and benefits.

The preparation and founding phase requires preparation costs, and may have an impact on value creation in the following phases. When it decides to expand business scale and enlarge business scope, an enterprise will carry out activities similar to those in the preparation and founding phase, which means the enterprise will incur development costs. The R&D phase requires more costs but begins to create values. In contrast, the production and processing phase requires fewer costs and creates fewer values. Compared to production and processing, the sales and services phase requires fewer costs but generates profits for brand control and distribution. The treatment and cycle phase requires a certain amount of costs but can generate high benefits. Paying taxes is the obligation that the enterprise must accept, and this is an important part of business costs. In the execution of a contract, especially when involving legal disputes, the enterprise will face a certain amount of costs for communicating with government or other economic entities.

Table 1.1 Basic composition of costs and benefits in all phases of enterprise business operation

Costs	Operation phases	Benefits				
	Preparation and founding					
	Opening application					
	Labor employment					
	Financing					
	Purchasing technologies					
	R&D and design					
	Production and processing					
	Sales and services					
	Treatment cycle					
	Payment taxes					
	Executing contract					
	Social responsibilities					
	Bankrupt and close					

Note: Enterprises only have benefits and costs in phases of R&D design, production and process, sales and service as well as treatment cycle, while the other phases only have costs. Grey blanks show the existence of costs and benefits in each phase with the length of the line indicating the amount.

As an important member of society, the enterprise will take certain responsibilities and pay related costs. When it cannot continue its business and becomes bankrupt, the enterprise will also entail some expenses in communicating with government and other economic entities.

Internal and External Factors Determining Enterprise Business Operation

In every phase of the enterprise's operation, every activity requires related physical, intellectual, or software and hardware conditions. The process of founding, operating, developing and perhaps ending an enterprise must be done with certain elements, of which the differences can not only determine business differences, but also define the difference in operation efficiency. Both internal and external factors impact the costs and values of different operational phases of an enterprise, and finally determine the output of the enterprise. The factors that impact all phases of an enterprise's operation include those internal to the firm as well as those relating to the city's commercial environment. This city's commercial environment is critical for activities in each phase of enterprise business operation and can be divided into enterprise groups, human resources, living environment, soft business environment, hard business environment and global connectivity (see Table 1.2).

The conditions of an enterprise itself include its culture, policies, management and strategy, all of which are formed and improved gradually during the establishment and development of the enterprise. Policies and management impact the incentives and constraints within an enterprise and then impact business efficiency; strategy impacts its ability to control and fulfill its profitability. The conditions of an enterprise also contain R&D design, production and processing, sales and services, and treatment cycle, all

Table 1.2 Internal and external factors impacting enterprise business operation

Phase	Activities	Enterprise itself	Industry structure	Human resources	Living environment	Soft environment	Hard environment	Global connectivity
Founding and development	Preparation and founding	XX	X		X	X	X	X
	Opening application	XX	X			X		X
	Labor employment	X	X	X	X	X	X	X
	Financing		X			X		X
	Purchasing technologies		X			X		X
Business operation	R&D and design	X	X	XX	XX	X	X	X
	Production and processing	X	X	XX	XX	X	X	X
	Sales and services	X	X			X	XX	X
	Treatment cycle	X	X			X		X
Performing responsibilities	Paying taxes	X		XX			XX	X
	Executing contract	X		X		XX	X	X
	Social responsibilities	X				X		X
Bankrupt	Bankrupt and close	X	X	X		X	X	X

of which comprise the basic business process of an enterprise. Also, the level of R&D design, advancement of production technology, sales channels and brand, service quality, and product disposal and recycle quality will directly determine the additional values created in these phases.

Industry structure or industry integration comprise the important commercial environment for enterprise development. The level of integration or grouping of one enterprise with neighboring enterprises can determine the enterprise's sharing of external economies, including the sharing of production elements, infrastructures and information. All these elements will impact the cost saving and value creation in all phases in the whole life cycle of the enterprise.

Human resources are the most important element in the commercial environment, which belongs to the hard environment. The scale, structure and potential of human resources can decide the specific businesses, cost incurred and value created in all relevant activities of the enterprise. Finally, the living environment is one part of the commercial environment, of which the supply of, for example, clothing, food, housing and transportation contribute to a satisfying lifestyle and can impact the scale, structure, potential and cost of human resources.

Besides human resources, the hard business environment also includes the basic production elements, such as natural resources (land and fresh water), the quality of the ecological environment, the capital market and financial services, the technology and technological innovation system, and the requirements of local market demands, all of which are the basic, advanced and scarce resources to determine the enterprise's selection of businesses and to further define the enterprise's cost and value creation.

The soft business environment includes the legal system, management structure, government regulation and supervision, public services and so on, all of which impact the progress made in all phases of enterprise founding, business operation, responsibilities performance, and bankruptcy and closure. Furthermore, all such elements will impact the efficiency of all phases of enterprise operation, and then determine enterprise costs and value creation.

Global connectivity is the important external factor that impacts enterprise business operation and development in the era of globalization. The city's geographic location, port, roads, airport, and communication and information system, all the infrastructures used for global connectivity, can impact enterprise business selection and operational costs. Interaction between enterprises, government and citizens can determine the degree to which global production elements, products and services can be used by the enterprise. In addition, such elements can also impact the innovation capacities of the city's citizens, enterprises and government.

Combination of Enterprise Conditions, Enterprise Groups (Industrial Systems) and Value Systems

Every city has its own enterprise qualities, principal assets, factors of production, market demands, living environment, policy environment, infrastructures and external connectivity of a certain scale and quality, of which the hard environment is distributed in different areas of the city. All the elements related to enterprise operations are interconnected with each other and form an elements system of the city enterprises. This detailed natural and social system cultivates suitable enterprises, of which the business combination among enterprises (that is, the industrial system of the city) corresponds to the element system.

City industrial clusters consist of certain industries, while the industries contain several branches and segments, to which many enterprises are related. For example, Los Angeles in the USA² has aggregated various industries and institutions, such as aviation and aerospace, automobile, steel and iron, furniture, cement, glass, petrochemical product, rubber product, petroleum, finance, foreign trade, tourism, education, movie, university and government. Some links in the production activities in every industry have developed the necessary conglomerates. The aviation and aerospace manufacturing industry contains aviation and aerospace materials purchasing, production of parts and components, assembly, product design and research, sales, and after-sales service. Also, every link will consist of a group of enterprises. Of course, these enterprises are not all located in Los Angeles and some links may be combined in one firm. We can classify city enterprise combinations according to industrial sector and the division of labor and draw them all in one graph in a simple and ordered way (see Figure 1.2). Every vertical line represents one big industry, every horizontal line on the vertical line is one certain production process or link that can be separated from the industry, and every small vertical line on the horizontal line is one group of enterprises or related institutions in every production process or link. The longer the vertical line is, the greater is the total output of the enterprise.

From the figure, we can see that the technological content of industries in different areas and industrial segments in the same city is different. The industrial value added to

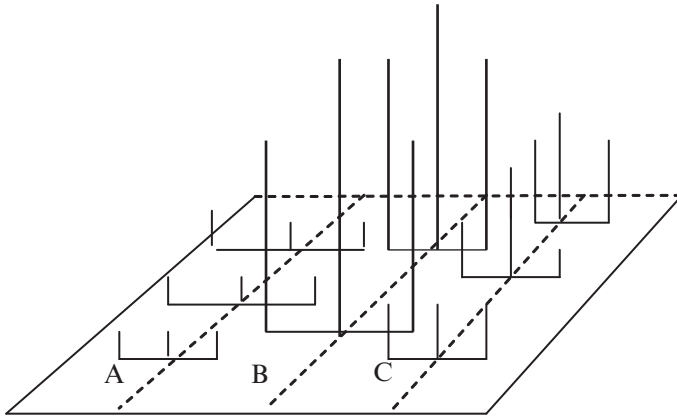


Figure 1.2 System of city industrial clusters

the product is also different. High value-added products can be created in the areas concentrated with innovative activities of the city's advanced service industry and high-tech manufacturing industry. Here advanced and high-quality operational elements support the innovative activities. On the other hand, low value-added products can be created in the areas concentrated with simple activities of the city's low-service industry and processing and manufacturing industry. Here low-level and low-quality operational elements support simple activities.

The industrial system not only reflects industrial specialization within the region, but also explains the connections between industries within a region, between internal and external industries or between different industrial segments.

For natural and cultural reasons, different locations (including cities) have different elements or systems to support the operation of a firm. These different elements or systems decide the difference in which business of firm are integrated – the regional division of labor, which divides the whole global industrial system into big, hierarchical and interconnected industrial systems composed of sub-industrial sectors in different locations.

Innovative and comparatively complex activities are supported in the regions or cities endowed with advanced and high-quality enterprise operational elements. High-end service and high-tech manufacturing industry in the industrial system as well as the links of R&D and design and the brand marketing are developed. Conversely, simple activities are supported in the regions or cities endowed with low-grade and low-quality industrial elements, and low-tech industry in the industrial system as well as the assembly and processing in the industrial structure are developed. In the regions or cities lacking essential basic industrial elements, even the lowest-level industries are difficult to develop. Figure 1.3 shows the global industrial system composed of four cities A, B, C and D. City A has the most high-end service and manufacturing industries. Its industries are distributed in a hierarchical order, and are connected with the industries of other cities. City B has secondary high-end service and manufacturing industries. City C has middle-end service and manufacturing industries. City D has middle-end service and manufacturing industries. Industries in cities B, C and D are also distributed in a

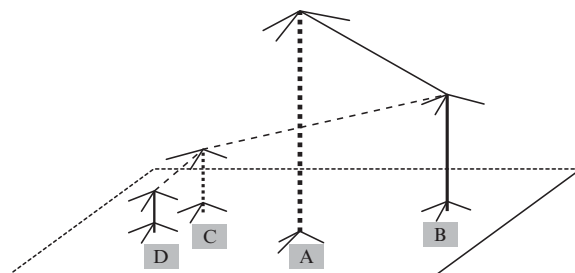


Figure 1.3 The distribution of cities with different industries

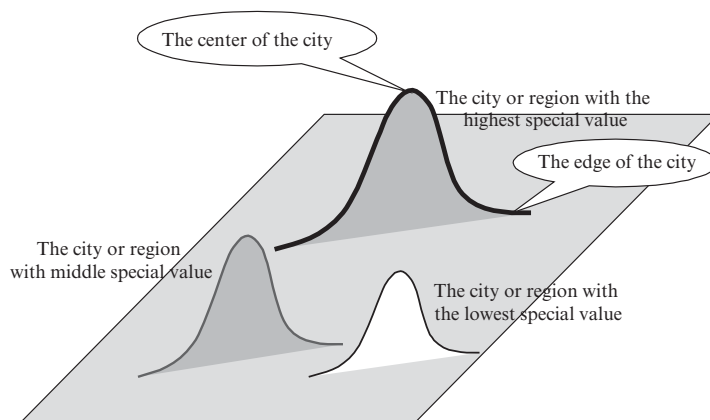


Figure 1.4 Spatial distributions of global values

hierarchical order, and interconnected with industries of other cities, like those of city A. Thus the whole world is shaped as a hierarchical and cooperative global industrial system on the basis of different cities. For example, on the value chain of the semiconductor industry, design is highly technology intensive, which lays great emphasis on experts in high-tech techniques and projects. This kind of industry is centralized in the USA and Japan and so on. Chip making is capital intensive, which lays great emphasis on the manufacturing size and requires a clean environment and clean water supplies. This kind of industry is centralized in the USA, Japan and Taiwan. However, assembly and packaging is labor intensive, which only requires people with a low level of skill. So this kind of industry is centralized in Southeast Asia where labor is cheap and abundant.

Different industry operating conditions generate different industrial systems in individual cities, which in turn have great impacts on the creation of values by industries in these cities. The discrepancy in the distribution of industry operating conditions also has great impacts on the value added of firms in the same industry or on the same link. Therefore, the global system gives an impression of unevenness in accordance with different regions (see Figure 1.4). If all the regions or cities are displayed on the same plane, we can find out that the spatial values are distributed like mountains. Not only

do values differ in different regions or cities, but also within them. The spatial values also tend to decrease from the downtown to the suburban areas. The top of a mountain reflects the spatial values in the center of cities, while the foot reflects those of suburban areas.

Competitiveness among Global Cities: The Dynamic Changes of Enterprise Operation Conditions, Industrial System and Value System

On the one hand, a firm requires maximization of profits and citizens require maximization of utility; on the other hand, since operational elements differ among cities, a firm's costs and profits differ in each location. Some elements can flow among firms and locations, but this requires costs; some key elements cannot flow. Motivated by the desire to maximize benefits, citizens, firms and the mobile elements migrate and accumulate in high-profit areas, thus the flows of the economic entities. Objectively speaking, this leads to competition among locations and competition among cities with regard to attracting citizens and firms (including production factors), production activities and markets. The migration and accumulation of elements lead to dynamic changes in relevant locations, which finally lead to changes in industrial systems and value systems.

Moreover, because of the competition among economic entities, citizens and firms will change the internal and external operational elements through their own efforts, which in the end change industrial elements in the entire city. Because of the competition among cities, local governments will change industrial elements through their own efforts, which in the end changes the industrial system and value-added system.

Global Urban Competitiveness: Determination Mechanism

The combination of influential elements in every link decides a firm's choice in business and the amount of value added that can be created, so the operational elements in combination with the business decide the firm's ability to create wealth. When compared to or competing with other firms, this ability is called its competitiveness.

The combined condition of influential elements in every link decides the enterprise cluster's choice of business in a city and the amount of value added it created, so the operational elements in combination with the business determine the enterprise's or the city's ability to create wealth. When compared to or competing with other cities, this ability is called the city's global competitiveness.

The determination of global urban competitiveness is as follows: against the background of globalization, industrial elements and systems differ and change significantly; industrial systems of different cities are at different levels, cooperating, transferring, upgrading and changing greatly; there is constant competition among cities. Against this background, the operational element systems of enterprise clusters are often at the root of urban competitiveness. By attracting external elements and maintaining internal elements, a city will try to develop its industry structure system and functional system, which combined can help to determine a city's value system. The industrial system or the enterprise cluster can be a powerful determinant of urban competitiveness, which is influenced by, and part of, the operational elements. It creates and decides a city's value by

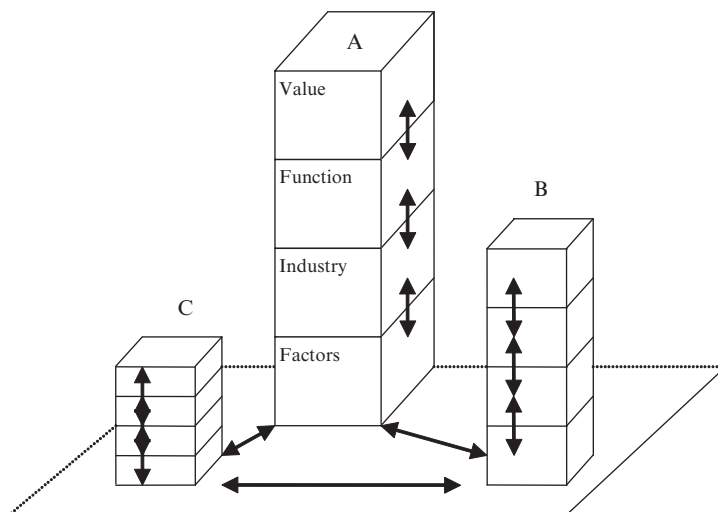


Figure 1.5 Determination mechanism of global urban competitiveness

strengthening or weakening local industries, and attracting or repelling foreign industries. In the end, it influences the city's operational elements.

Figure 1.5 shows briefly that a city's operational elements and industrial system decide its value system in the competition with other cities, and shape its competitiveness.

As Figure 1.5 indicates, city A builds its operational element systems, cultivates its open industrial systems, creates its value system and finally forms its competitiveness by attracting scarce factors of production and firms from city B and C, by making use of the element environment in cities B and C, and by cooperating with them. The same applies to city B and city C.

In fact, against the background of globalization, every city forms its competitiveness by competing or cooperating with the other cities on the element environment and industries. When the three are combined – element environment, industrial system and value system – a city's competitiveness is formed.

The Input Framework

In the context of the above analysis, the following framework of interpreting urban competitiveness is formed by a rational combination of urban enterprise operational elements system with industrial systems (see also Figure 1.6).

$$UC_1 = F(E, T, I, L, H, S, G)$$

UC_1 = the input into the city's competitiveness, referred to as subentry competitiveness in this report. F = a function of. E = the qualities of enterprise. T = human resources. I = industry structure. L means the living environment. H = the soft business environment. S = the hard business environment. G = global connectivity.

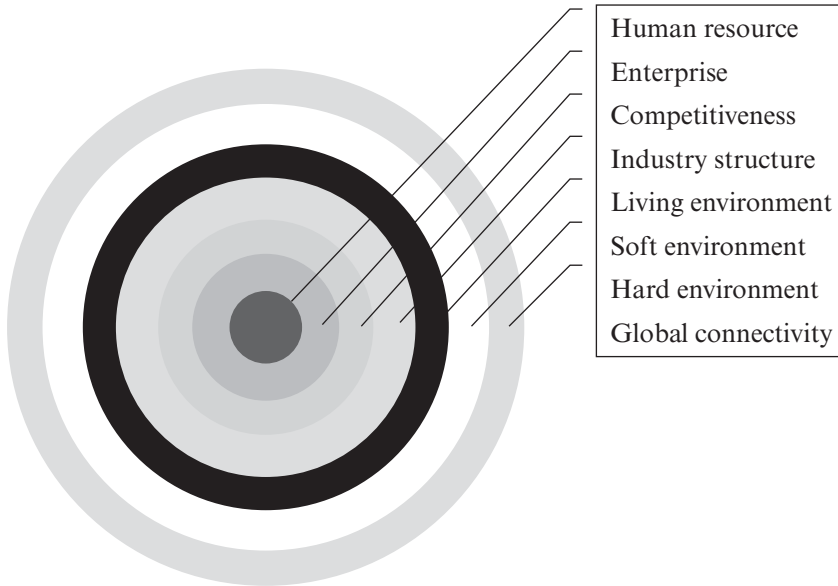


Figure 1.6 The input framework of global urban competitiveness

Enterprise quality. The wealth of a city is created by the city's enterprises. It is the environmental condition that the city provides and the inherent qualities of enterprises that determine how much wealth a company can create. 'Enterprise quality' refers to the advantages and special nature of a city's inherent qualities. Generally, enterprise quality is comprised of six aspects: enterprise culture, enterprise institution, enterprise management, enterprise operation, enterprise brand and enterprise performance.

Industry structure. It is quite difficult for various industries and various chains in the same industries to create value added. The ability of creating wealth is decided by the speed of industrial structural adaptation and the level of industrial specialization. The major industries contain manufacturing and services, during which banking and high-tech industry are very important. This report is focused on these industries.

Human resources. The wealth of a city is created by its residents. Meanwhile, the ability to create wealth is related to population, labor and the quantity and capability of human resources, which results in the level of urban competitiveness. Human resources mainly refer to workforce health, educational attainment, labor conditions and talents.

Hard environment. Natural resources, factors of production, infrastructure and consumption are referred to as the hard environment, which is the base for cities creating wealth. The quality and quantities of these factors reflect the ability to create wealth. The hard business environment mainly refers to factors of production, financial structure, technological infrastructure and market scale.

Soft environment. Soft environment of cities is the non-material environment

affecting the enterprise operation. It refers to legal system and culture, government regulation and supervision, planning and vision, government policy and so on. Soft environment has a great influence on enterprise operation. This report focuses mainly on market mechanisms, as well as government institutions and policy.

Living environment. The quality of the urban living environment contributes to the city's competitiveness by attracting skilled workers and by cultivating the talents of the workforce. A high-quality living environment plays an important role in attracting and cultivating high-quality talents as well as maximizing the application of their abilities. Living environment generally refers to natural environment, residential quality, retail opportunities, culture and leisure, and security.

Global connectivity. Against the background of globalization, cities as the subjects have joined in the global competition, and the urban network has gradually expanded worldwide. The development of economic, social and cultural development within a city is gradually connected and merged with international development, which becomes a crucial part of the integrated international development system. In this report, we apply a global connectivity index so as to measure a city's participation in global competition, as well as its relative position among all cities worldwide, including locational conditions, transportation connectivity, resident connectivity, information connectivity and enterprise connectivity.

The Index System of Input Competitiveness

The three-level index system of input competitiveness used in the analysis of this report was designed in accordance with the above theoretical analysis. The index system consists of 7 level 1 indices, 40 level 2 indices and 105 level 3 indices. For a full explanation of this index system and its interpretation, please refer to Table 1.3, and Table 1.4 at the end of this chapter.

THE OUTPUT FRAMEWORK

From the definition of urban competitiveness, we know it means the ability to continuously create the most wealth at the lowest cost within the shortest time. From the perspective of output, we can assess global urban competitiveness with the following framework:

$$UC_2 = F(C, S, L, A, E, P, G, I, D)$$

UC_2 is the output of urban competitiveness, also referred to as urban comprehensive competitiveness in the report. F = a function of. C = cost, S = economic scale, E = employment, A = aggregation, L = development level, P = labor productivity, I = innovation, G = economy growth and D = decision-making ability.

Cost is the most important comparative advantage of a city and the most significant source of urban competitiveness. Obviously, commodities of the same quality can

Table 1.3 Subentry competitiveness: index system and integrated hierarchy relationship

Index	Level	Integrated data or not	Index	Level	Integrated data or not
Z1 Enterprise Quality	First	Yes	Z2.2 Service Industry Development	Second	Yes
Z1.1 Corporate Culture	Second	Yes	Z2.2.1 Percentage of Producer Service Industry	Third	No
Z1.1.1 Social Responsibility	Third	No	Z2.2.2 Number of Multinational Wholesale and Retail Corporations	Third	No
Z1.1.2 Entrepreneurship	Third	No	Z2.2.3 Number of Multinational Commerce Service Corporations	Third	No
Z1.2 Corporate System	Second	Yes	Z2.2.4 Number of Multinational Advertising & Media Corporations	Third	No
Z1.2.1 Shareholding Proportion of the Largest Participant	Third	No	Z2.3 Financial Sector Development	Second	Yes
Z1.2.2 Stock Ownership Incentive	Third	No	Z2.3.1 Percentage of Financial Industry	Third	No
Z1.3 Enterprise Management	Second	Yes	Z2.3.2 Multinational Financial Corporation Headquarter Distribution	Third	No
Z1.3.1 External Supervision	Third	No	Z2.3.3 Multinational Financial Corporation Branch Distribution	Third	No
Z1.3.2 Financial Management	Third	No	Z2.4 The High-Tech Industry Development	Second	Yes
Z1.3.3 Development Strategy	Third	No	Z2.4.1 Number of Multinational Software Service Corporation Headquarters	Third	No
Z1.4 Enterprise Operation	Second	Yes	Z2.4.2 Number of Multinational High-Tech Corporation Headquarters	Third	No
Z1.4.1 The R&D/Revenue Ratio	Third	No	Z2.4.3 Industry Driving Force	Third	No
Z1.4.2 Technical Level in Production Manufacturing	Third	No	Z3 Human Resource	First	Yes
Z1.4.3 Branch Distribution	Third	No	Z3.1 Health	Second	Yes
Z1.5 Brand	Second	Yes	Z3.1.1 Average Life Expectancy at Birth	Third	No
Z1.5.1 Popularity of Enterprise	Third	No	Z3.1.2 Infant Mortality Rate	Third	No
Z1.5.2 Popularity of Products	Third	No			
Z1.6 Enterprise Performance	Second	Yes			
Z1.6.1 Return on Equity	Third	No			
Z1.6.2 Profit Growth Rate	Third	No			
Z2 Industry Structure	First	Yes			
Z2.1 Manufacturing Development	Second	Yes			
Z2.1.1 Percentage of the Service Industry	Third	No			
Z2.1.2 Number of Manufacturing Multinational Corporation Headquarters	Third	No			

Table 1.3 (continued)

Index	Level	Integrated data or not	Index	Level	Integrated data or not
Z3.2 Literacy Quality	Second	Yes	Z4.2.4 Difference of	Third	No
Z3.2.1 Adult Literacy Rate	Third	No	Deposit and Loan		
Z3.2.2 Proportion of Persons Holding Bachelor Degree or Higher	Third	No	Z4.3 Scientific and Technological Ability for Innovation	Second	Yes
Z3.3 Status of the Labor Market	Second	Yes	Z4.3.1 Number of International Patent Applications	Third	No
Z3.3.1 Number of Labor Force	Third	No	Z4.3.2 Number of Papers Published in International Journals	Third	No
Z3.3.2 Proportion of Labor force	Third	No	Z4.3.3 Number of Famous Laboratories and Research Centers	Third	No
Z3.4 Status of Talent	Second	Yes	Z4.3.4 National Technical Infrastructure	Third	No
Z3.4.1 Number of Managers Per 1000 Inhabitants	Third	No	Z4.4 Market Scale	Second	Yes
Z3.4.2 Employment in High-Tech Services Per 1000 Inhabitants	Third	No	Z4.4.1 Urban Population	Third	No
Z3.5 Education Development	Second	Yes	Z4.4.2 Urban Income Per Capita	Third	No
Z3.5.1 Number of Colleges and Universities	Third	No	Z4.4.3 Regional GDP Per Capita	Third	No
Z3.5.2 Famous University Distribution	Third	No	Z4.4.4 Regional Population	Third	No
Z3.6 Cost of Labor Force	Second	Yes	Z5 Soft Environment	First	Yes
Z3.6.1 Employees' Earning	Third	No	Z5.1 Market System	Second	Yes
Z3.6.2 Living Cost	Third	Yes	Z5.1.1 Ratio of Local Revenue to the National Revenue	Third	No
Z4 Hard Environment	First	Yes	Z5.1.2 Index of Economic Liberalization	Third	Yes
Z4.1 Basic Elements	Second	Yes	Z5.1.3 Protecting Investors	Third	Yes
Z4.1.1 Land Area Per Capita	Third	No	Z5.2 Market Regulation	Second	Yes
Z4.1.2 Freshwater Per Capita	Third	No	Z5.2.1 Starting a Business	Third	No
Z4.1.3 Status of Power Supply	Third	Yes	Z5.2.2 Dealing with Licenses	Third	No
Z4.1.4 Water Price	Third	No	Z5.2.3 Closing a Business	Third	No
Z4.1.5 Electricity Price	Third	No	Z5.3 Social Management	Second	Yes
Z4.1.6 Office Rental	Third	No	Z5.3.1 Routine Management	Third	No
Z4.2 Financial Market	Second	Yes	Z5.3.2 Emergency Management	Third	No
Z4.2.1 Capital Market	Third	No	Z5.4 Public Service	Second	Yes
Z4.2.2 Getting Credit	Third	Yes	Z5.4.1 Administration	Third	No
Z4.2.3 Effective Exchange Rate	Third	No	Z5.4.2 Public Satisfaction	Third	No

Table 1.3 (continued)

Index	Level	Integrated data or not	Index	Level	Integrated data or not
Z5.5 Strategy and Experience	Second	Yes	Z7 Global Connectivity	First	Yes
Z5.5.1 Development Experience	Third	No	Z7.1 Location Convenience	Second	Yes
Z5.5.2 Development Strategy	Third	No	Z7.1.1 Nature Location; Distance to River, Lake or Sea	Third	No
Z5.6 Paying Taxes	Second	Yes	Z7.1.2 Distance to World Famous Cities	Third	No
Z5.6.1 Payments	Third	No	Z7.2 Land Transportation	Second	Yes
Z5.6.2 Time	Third	No	Z7.2.1 Number of Railway Lines	Third	No
Z5.6.3 Total Tax Rate	Third	No	Z7.2.2 Number of Highway Lines	Third	No
Z5.6.4 Corruption Cost	Third	Yes	Z7.3 Water Transportation	Second	Yes
Z5.6.5 Weighted Average Tariff Rate	Third	No	Z7.3.1 Container Throughput	Third	No
Z6 Living Environment	First	Yes	Z7.3.2 Berth Draft	Third	No
Z6.1 Natural Environment	Second	Yes	Z7.4 Air Transportation	Second	Yes
Z6.1.1 Natural Landscape	Third	No	Z7.4.1 Aircraft Movement	Third	No
Z6.1.2 Climate	Third	No	Z7.4.2 Passenger Throughput	Third	No
Z6.2 Environmental Quality	Second	Yes	Z7.4.3 Cargo Handled	Third	No
Z6.2.1 Sulphur Dioxide Emissions	Third	No	Z7.4 Information Connectivity	Second	Yes
Z6.2.2 Wastewater Treatment Rate	Third	No	Z7.5.1 Virtual Connectivity of Enterprise Website	Third	No
Z6.2.3 Particles	Third	No	Z7.5.2 Virtual Connectivity of Official City Website	Third	No
Z6.3 Shopping Environment	Second	Yes	Z7.6 Residents Connectivity	Second	Yes
Z6.3.1 Shopping	Third	No	Z7.6.1 Percentage of Foreign-born Population	Third	No
Z6.3.2 Price Index	Third	No	Z7.6.2 Percentage of Foreign Visitors	Third	No
Z6.4 Dining & Restaurant	Second	Yes	Z7.7 Enterprises Connectivity	Second	Yes
Z6.4.1 Dining	Third	No	Z7.7.1 Number of Multinational Corporation Headquarters	Third	No
Z6.4.2 International Hotels	Third	No	Z7.7.2 Number of Multinational Corporation Branches	Third	No
Z6.4.3 The Price of Restaurant	Third	No			
Z6.5 Housing	Second	Yes			
Z6.5.1 Per Capita Dwelling	Third	No			
Z6.5.2 Housing Price to Income Ratio	Third	No			
Z6.5.3 Lodging	Third	No			
Z6.6 Culture and Entertainment	Second	Yes			
Z6.6.1 Entertainment	Third	No			
Z6.6.2 World Heritage	Third	No			
Z6.7 Social Security	Second	Yes			
Z6.7.1 Crime Rate	Third	No			
Z6.7.2 Cost From Terrorism	Third	Yes			

obtain greater market share if they are sold at a lower price. The ratio of the nominal exchange rate to the real exchange rate, an important index of urban competitiveness, can partially reflect the price advantage of a city in a country compared with that of cities of other countries.

Economic scale is also an indicator of competitiveness. Economies of scale promote market competitiveness through reducing the unit cost of products. If market share is an important index of competitiveness, then the magnitude of gross domestic product (GDP) is a reflection of the market share of a city in both internal and external markets.

Economic growth is a reflection of a city's potential competitiveness. The growth rate of GDP, especially long-term growth rate, is an important index of a city's economic vitality.

Development level is a reflection of the city's competitiveness and stage of development. Gross domestic product per capita is an important indicator of a city or a region's development level and the incomes of its residents.

Production efficiency is the decisive factor for urban competitiveness and development. To a significant degree, competitiveness is directly linked to production efficiency. Labor productivity, the key to production efficiency, reflects the value added or wealth created per unit of labor.

Employment also reflects a city's competitive performance in global competition. It is also an important reflection of citizens' welfare. Therefore, we consider it to be an important indicator of urban competitiveness.

Economic aggregation promotes competitiveness through a reduction of the transaction cost. The aggregation effect can lead to knowledge sharing, technology spillovers, brand identification, external economies and other economic effects. Gross domestic product per square kilometer is an important indicator of output aggregation resulting from the aggregation of production factors. It is also an important indicator of efficiency, reflecting the amount of wealth created per square kilometer.

Technological innovation is at the core of urban competitiveness and its achievements are an important reflection of urban competitiveness. The number of international patent applications is another useful indicator of urban competitiveness. Due to the diffusion effect in the transformation of scientific and technological results, we use the gross index instead of the average index.

Decision-making ability shows the extent to which a city acts as a control center in the world economy. This ability is reflected in the number of multinational corporations located in a city, and we use this as an indicator of urban competitiveness.

The Index System of Output Competitiveness

Based on the above analysis, the output index system of global urban competitiveness is listed in Table 1.4.

Theoretically, $UC_1 = UC_2$, but they are not completely equal to each other in reality due to statistical and other data-related factors.

Table 1.4 Index system of urban comprehensive competitiveness

Index	Implications of the index
GDP	A city's products and service market share
GDP per capita	A city's development level and residents' welfare level
GDP per square kilometer	Degree of economic aggregation
GDP growth rate	Economic vitality
Labor productivity	Economic efficiency
Employment rate	Important macroeconomy performance and residents' welfare level
Ratio of nominal exchange rate to real exchange rate	Advantage in the price of commodities and services
Number of international patent applications	Ability of scientific and technological innovation
Multinational corporation score	Economic decision-making and controlling ability

NOTES

1. World Bank (2007), *Doing Business 2007: How to Reform*, Washington, DC: World Bank.
2. M.E. Porter (1990), *The Competitive Advantage of Nations*, Basingstoke: Macmillan.

2. Analytical methods

The word city usually refers to a concentrated residential area with a relatively high degree of urbanization. But countries vary from each other in terms of the concrete definition of city and the definition of its scope. Some take population size as the definition standard, while others take the historical, legal or administrative concept as the defining standard of city. In this report city refers to the concentrated residential area under the governance of an administrative management center, including not only the urbanized area, but also its linked ring of suburbs and villages. From this definition, it can be seen clearly that the city we refer to is a city in the administrative sense. Nevertheless, it is still necessary to explain the difference and connection between this concept of city and urbanized area and urban area specially.

CITY AND REGION

The administrative division varies from country to country. Some countries set up the administrative unit of region below state (province) and above city, such as China and India and many European countries. The administrative center of these regions is usually a dominating city, while the supreme administrative organ of the city governs some other cities. Under this circumstance, city only refers to the district itself, excluding other cities under it.

CITY AND URBANIZED AREA

The difference between city and urbanized area is that city is a region in the administrative sense, while urbanized area refers to a region in the social and economic sense, so that urbanized area means an urbanized region excluding the surrounding villages. According to this difference, urbanized areas are usually differentiated from the urban area. When an area is highly urbanized, the size of the urbanized area may be larger than the certain urban area, because the former probably includes some areas of other cities. When the degree of urbanization of an area is relatively low, the size of the urbanized area will be smaller than the urban area, because the latter will include the suburb or village.

CITY AND METROPOLITAN AREA

Some countries also have the concept of metropolitan area (for example, the USA and Canada). This concept is in the statistical sense, namely, when the urbanization of some

countries reaches a certain degree the connection of neighboring urban areas will be enhanced in terms of economy and society and the sharing degree of infrastructures will be high. In order to reflect the development of this area more comprehensively, statistics agencies will utilize these urban areas as a unit in statistics, namely, the metropolitan area. Therefore, generally speaking, the size of a metropolitan area is usually larger than that of the urban area.

What needs to be pointed out is that in the course of research, due to the accessibility of data, some cities adopt the concept of urbanized area, while others adopt the concept of metropolitan area. We have provided special explanations in these cases. Cities without special explanation are cities in the administrative sense.

THE CITY SAMPLES

Five hundred cities were selected for the Global Urban Competitiveness (GUC) study. The extent to which the two samples analyzed are extensive and typical is critical to the accuracy and value of the findings of the study. The two types of cities selected in this study are:

General Sample: 500 Cities

Five hundred sample cities across the world were selected for general assessment of their competitiveness. In the first step, a rough scanning is made for cities in countries and regions of the six continents. Candidates are selected from major cities for initial screening. Next, the number of sample cities in each country or region is identified within the total of 500 worldwide, referring to local population and income per capita. Then specific sample cities are selected in each country or region sequentially according to size and economic importance. Finally, adjustments are made for sample cities in each country with considerations as to the availability, accuracy and comparability of the statistical data of each city. Eventually, those with availability of standard, comparable and accurate data available were selected as sample cities.

In terms of geographic distribution, the 500 cities selected through the above steps are located in 130 countries and regions in six continents. Specifically, 181 of the cities are in Asia, 143 in Europe, 100 in North America, 36 in Africa, 28 in South America and 12 in Oceania. In terms of development stage, the 500 cities may be divided into four groups by the standard of gross domestic product (GDP) per capita (based on official exchange rates as of 2005). Ninety-one of the sample cities have GDP per capita of more than 40 000 dollars, 72 between 30 000 and 39 999 dollars, 74 between 10 000 and 29 999 dollars and 263 less than 10 000 dollars. In general, these 500 cities represent the development levels of different regions in today's world. The reader should refer to the Global Urban Competitiveness Index Ranking for the 500 sample cities (see Table 4.1 below).

Focused Analysis Sample: 150 Cities

Based on the general assessment of the 500 sample cities, 150 of them play an important role in international, national and regional affairs and are picked out in accordance with the following standards for focused competitiveness analysis:

1. The candidate cities shall have considerable influence and be well known in the world with the most extensive human resource, capital and technology stocks.
2. The candidate cities shall be the economic, political and cultural centers in their respective countries and regions, with the most dynamic business activities, information flow and knowledge-based innovations.
3. The economic and social development models of the candidate cities shall be typical and representative.
4. The candidate cities shall have unique identities and value for study.
5. The candidate cities shall have abundant and detailed data available, and many achievements shall have been made in relevant studies about these cities.

The 150 cities are located in 47 countries and regions in six continents, including major cities in North America, Europe, Asia and Australia, and central cities in Latin America and Africa. As these cities vary in terms of natural resource reserves and development levels, a comprehensive analysis of their strengths and weaknesses could provide local governments and businesses with the basic data and reference materials to make informed decisions. See Appendix 2 for the 150 sample cities.

DATA COLLECTION

The GUC index consists of 114 indices, including nine measuring indices and 105 subentry competitiveness indices. As a large number of sample cities are studied in the report and substantial gaps exist among the statistical approaches and standards adopted by each city, there have been considerable challenges in data collection, primarily:

1. First-hand data about some indices, for example, population and area, are available in all sample cities; however, the data are collected according to different standards in different cities.
2. First-hand data about other indices, for example, living environment index, are released by some consultancy institutions, are available in most sample cities, but unavailable in a few.
3. For another set of indices, no data are available from international, national statistical or regulatory bodies; this includes indices that reflect the distribution of industrial links, urban functions and quality of enterprises.

To address this issue, different methods are employed in this study. In view of the above situations, data were collected through the following two channels, while at the same time we employ some effective methods to ensure that definitions of variables were similar so that the data are truly comparable.

Data for Which the Corresponding or Alternative Indices Are Available

Data of this type are collected mainly from official statistical publications of international organizations and governments, as well as reports of research institutions, and

then processed with adequate methods for consistency (primarily data from 2005, with the time series data covering 2001–05).

1 Statistical data released by relevant agencies of state and city governments

Statistical data released by the statistics agencies of city and state governments are the most authoritative and most accurate data about relevant cities. Searching for such data from the publications or websites of such agencies is the basic approach to data collection in our study. Data released by other relevant agencies of the city and state governments are also authoritative and accurate. Searching for data from the publications or websites of those agencies is another important approach of our data collection. These agencies include development planning, economic administration, labor and human resource, law enforcement, culture and education, environmental protection, city management and social services.

2 Statistical data released by other organizations or entities of the city and state

Statistical data about relevant organizations and entities of the city and state released by the organizations/entities themselves could be important for our study on specific aspects of the cities. Such organizations and entities include airports, ports, hotel, power/water supply companies and communication companies.

3 Yearbooks or study reports of international organizations and research institutions

Yearbooks or study reports of international organizations and research institutions are another important channel for the collection of objective data. Typically, these yearbooks and reports include the World Development Indices and Business Environment Report of the World Bank, International Financial Statistics by the International Monetary Fund (IMF), the United Nations Development Programme's (UNDP) Human Development Indices (HDI), data about world heritages available on the website of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) World Heritage Centre, Most Competitive Cities in the World by the Organisation for Economic Co-operation and Development (OECD), Eurostat Yearbook, World Federation of Exchanges (WFE) Yearbook, statistical data available on the website of World Intellectual Property Organization (WIPO) and the World Competitiveness Report of World Economic Forum. Reports of other research institutions are important data sources, too. Such reports include the World Knowledge Competitive Index (WKCI) compiled by Professor Robert Huggins Associates at the University of Sheffield, World Cost of Living City Rankings and World Quality of Life City Rankings by Mercer, *The Banker Magazine's* Top 1000 World Banks, and Webometrics Ranking of World's Universities and Research Institutions.

Data for Which the Corresponding or Alternative Indices Are Unavailable

Data of this type are obtained through quantitative processing of original materials collected through the Internet, newspapers and other media in accordance with standards concerned (primarily data of 2007, with the time series data covering 2004–07). Google is one of the most frequently used search engines for our data collection on the Internet. Particularly, it is the prime tool for the collection of data about the popularity of cities, the number of papers published in international journals.

DATA PROCESSING

In view of the above data collecting channels, and the challenges and complexity in the collection, the following methods are employed for data processing.

For Data Directly Available: Unified Processing

For some indices, for example, population and area, first-hand data are available in every city. However, these data might have been collected according to different standards. In such cases, we would first study the indices and standards of United Nations Statistical Division (UNSD), World Bank World Development Indices, OECD Database and other international organizations. Then we would determine an approach for the conversion of data of each country and set up the most proper, comparable and widely used statistical standards for data processing. Eventually, we were able to build a uniform database to cover the 500 international cities. With regard to population, for example, some cities only provide domiciliary population, some provide permanent population and others include temporary population in their statistics. In our study, they are all converted into permanent population. For another example, the ‘area’ might be land area only for some cities, and the sums of land and water areas for others. In our study, adjustments are made so that the area means land area only. Similar situations exist for many other indices, for example, adult literacy rate, the proportion of people with higher education and crime rate, which are all adjusted with consistent standards.

Index Data that Can Be Calculated Indirectly, or for Which Alternatives Are Available

Data that can be calculated or for which alternatives are available are processed through the following approaches.

Direct calculation of variables

When some variable data are not directly available, we will calculate in accordance with strict logical relationship from two or more other relevant variable data. This involves three aspects. One is the reversible calculation between the equalizing value index and the total amount index. For example, a city’s GDP, GDP per capita, GDP per square kilometer as well as the labor productivity can be reversibly calculated through such intervening variables as the city’s area, population and employed population. The second is the calculation of the variable static data and the dynamic data. For example, a city’s GDP growth rate can be calculated through the chronological data of its GDP. The third is the calculation between the index absolute value and proportion, such as the reversible calculation among number of the labor force, employed population and the unemployment rate. Also, the urban population educated above college level can be calculated by calculating its proportion in the city’s whole population. Additionally, the proportion of foreign-born citizens and the proportion of foreign tourists in the urban population, and so on, can also be calculated in this way. The direct variable calculation method has been extensively used in our research. Owing to its conformity to the strict logical relationship between the variables, the calculated variables are undoubtedly accurate on the condition that the existing variables are known to be accurate.

Calculation of variables based on other relevant variables

If some data cannot be obtained directly, then they can be calculated according to their quantitative relations with the relevant variables collected. For example, if we cannot obtain accurate GDP information on a city, but can obtain its accurate gross value added (GVA) data, then we can calculate the country's or the city's GDP in accordance with its similar quantitative relationship with its GVA. This method has mainly been adopted in GDP data processing in the British cities, as well as some other European cities.

Estimation of variables

Since this is a method of estimation, the data obtained in this way are less accurate than those obtained by the above two methods. It is the calculation of the city's variables with other relevant knowledge or experiences on the basis of the relevant variables collected. This method has been widely used, albeit not often. That is, it can almost be applied in the data processing of all the index systems, but only a few cities adopt it in their data processing. For example, as the GDP data of some cities in South America and Africa are hard to obtain, we can only refer to the GDP data of its country or other cities in its country, or even in other countries, and then estimate the GDP data of this city on the basis of the relevant information or sometimes the researcher's experience. Other examples can be found in the data of various index systems of several cities.

Substitution of variables

A city is a component of its superior administrative region, so the relevant variable data of its superior administrative region is either the same as (such as some policies or systems of a country or a region, which are also applied to the cities under it), or very relevant to, its own variable data. This method has been widely used in our research, such as getting credit, effective exchange rate, difference of deposit and loan, the national technical infrastructure in the hard environment index, the ratio of local revenue to the national revenue, and all indices of economic liberalization, market supervision and all of the indices in the tax burden in the soft environment index, as well as the cost from terrorism in the living environment. All of these index data are constructed on the national level. Besides, there are some cities whose other index data are substituted with data of the region or the province in which they are located.

Estimation of Variables Based on Comparisons

Estimations are made in accordance with government data and the positions of particular cities in their respective countries, as well as the performance of similar cities. For some indices, particularly those released by research and consultancy institutions, first-hand data are available in most cities. For example, Mercer World Cost of Living City Rankings, the number of management and high-tech professionals in every 1000 people in accordance with World Knowledge Competitiveness Report, World Bank World Development Indices' carbon dioxide emission, wastewater treatment rate and particles, and indices of the Chinese travel organization CTRIP (www.Ctrip.com) about shopping, dining, lodging and entertainment, cover most cities. However, the data for some of the cities are not available. In such cases, relevant data about these cities are compared with other cities to get estimated data for the indices.

Data that Are Not Directly Available and Cannot Be Calculated and No Alternatives Are Available

For some indices, for example, those concerning the distribution of industrial links, urban functions, city management and competitiveness of enterprises, no objective data are directly available, nor is calculation on the basis of other relevant data viable. In such cases we would substitute the data of typical samples as data of these indices. For example, if we cannot compare average profit of all corporations in the 150 cities, we compare profit of the largest corporation in each industry for each city.

Scoring of Alternatives

Scoring of alternatives is a method for obtaining and scoring of alternatives for particular indices, for which no direct or indirect data are available. These alternatives must be easily accessible and able to reflect the indices to a high proximity. Scoring of alternatives proves to be an effective solution to complicated situations where key data are not directly available. By properly selecting the alternatives, it could reflect the original variables truthfully.

1 Scope of application

As an important research method, in this research report, the substitution scoring method is mainly used for the design, research and analysis of the substitute indices for the urban industry structure. Owing to historical as well as realistic factors, cities around the world have different development levels and complicated industry structures as well as industry distribution. Therefore, from the point of view of statistical analysis, it is very hard to obtain adequate data support to carry out comprehensive research on them. Through the analysis, we can conclude that the urban industry structure will be ultimately reflected by the distribution and aggregation of the enterprises in different industries. Therefore, in this research report, the substitution scoring method has been adopted during the design of the index system of the urban industry structure, that is, to design the indices that can approximately reflect the status quo of the city's industry structure in accordance with the urban distribution of the multinational corporations in different industries. The subentry competitiveness indices in the index system of the world urban competitiveness that used the substitution scoring method include: the controlling ability of international economy in the performance index system; the indices in the industry structure system which reflect the status quo of the service industry's competitiveness, such as the number of manufacturing multinational corporation headquarters, the number of multinational wholesale and retail corporations, the number of multinational commerce service corporations and the number of multinational advertising and media corporations and so on; the indices which reflect the competitiveness status quo of the financial industry, such as the multinational financial corporation headquarter distribution and the multinational financial corporation branch distribution controlling ability of international economy and the controlling ability of international financial economy branch and so on; as well as the indices which reflect the competitiveness status quo of the high-tech industry such as the number of multinational software service corporation headquarters and the number of multinational high-tech corporation headquarters and so on.

2 Scoring criteria and principles

Another important aspect of the substitution scoring method is to score the substitutes according to certain criteria. During its concrete application in the index design, and in accordance with the global network configuration and distribution characteristics of the multinational corporations around the world, the following scoring criteria will be observed:

1. the city where the multinational corporations' global headquarters congregate (five points);
2. the city where the multinational corporations' regional headquarters congregate (four points);
3. the city where the multinational corporations' national headquarters congregate (three points);
4. the city where the multinational corporations' branches congregate (two points);
5. the city where the multinational corporations' agencies (that is, the small-scale branches with limited functions) congregate (one point).

The above five items make a basic scoring criterion, while during the concrete operation, owing to the unclear information provided by corporations or the different configurations of multinational corporations' global network, it is very hard to judge directly the scores of the multinational corporations' branches. In such a case, we make the subsidiary judgment mainly from two aspects: one is to search online and decide the status of the multinational corporation's branches according to the relevant information collected in this way; and the other is to make the judgment according to the number and scale of the distribution of the multinational corporations' branches in different cities. Generally speaking, in the same country, the city is superior to other cities in the global network of the corporation if it has the most or the largest branches of a multinational corporation; moreover, the function of the branches located in it are also superior to that of the corporation's branches in other cities. On the basis of combining these two aspects, if it is still not possible to make the judgment about a city with the obtained information, then it will be given two points. After the scoring of the distribution status of the chosen multinational corporations in the same industry one by one, the marks of the substitute indices will be calculated by an equal-weight accumulation.

3 The sampling of the multinational corporations in different industries

The aim of this research is to design the substitute indices. In order to better reflect the fundamental state of the urban industry structure so as to make a judgment on its industrial competitiveness, we have chosen the representative multinational corporations in such industries as general manufacturing, commercial service, trade, retail service, finance, high-tech, and so on, for the analysis. In order to make the analysis results comparable, we have made the multinational corporation sampling in accordance with the rankings in each industry of the Forbes Global 2000. For more details, see Table 2.1.

Table 2.1 The industry classification of the sample multinational corporation in each of the indices

Z2.1.2 Number of Manufacturing Multinational Corporation Headquarters	The manufacturing enterprises of the Forbes Global 2000 (2005)	Including the industries of durable consumer goods, materials, food, beverage and tobacco, household and individual care products of the Forbes Global 2000 (2005) industrial classification
Z2.2.2 Number of Multinational Trade and Retail Corporations	The enterprises in the industries of trade and retail of the Forbes Global 2000 (2005)	Including the industries of trade, retail, commerce service and supplies of the Forbes Global 2000 (2005) industrial classification
Z2.2.3 Number of Multinational Commerce Service Corporations	The global top 25 multinational corporations according to the revenue rankings in the industries of management consulting, accounting and law	The global distribution data of some enterprises are hard to obtain, which are therefore substituted by enterprises ranking 25–30 in the same list
Z2.2.4 Number of Multinational Advertising & Media Corporations	The global top 25 multinational corporation according to the revenue rankings in the industries of advertisement and media	The global distribution data of some enterprises are hard to obtain, which are therefore substituted by enterprises ranking 25–30 in the same list
Z2.3.2 Multinational Financial Corporation Headquarter Distribution	The top 75 financial multinational corporations of the Forbes Global 2000 (2005)	Including the industries of finance, insurance and banking of the Forbes Global 2000 (2005) industrial classification; the global distribution data of some enterprises are hard to obtain, which are therefore substituted by enterprises ranking 75–85 in the same list
Z2.3.3 Multinational Financial Corporation Branch Distribution	Ditto	Ditto
Z2.4.1 Number of Multinational Software Service Corporation Headquarters	The software service multinational corporations of the Forbes Global 2000 (2005)	Including the software service industry of the Forbes Global 2000 (2005) industrial classification
Z2.4.2 Number of Multinational High-Tech Corporation Headquarters	The high-tech multinational corporations of the Forbes Global 2000 (2005)	The high-tech includes the industries of pharmacy and biotechnology, hardware equipment and technology, semi-conductor, etc. of the Forbes Global 2000 (2005) industrial classification
Multinational Corporation Score	The sample multinational corporations in all the industries in Z2.2.3, Z2.2.4, Z2.3.2, Z2.3.3	Including the industries of finance, management consulting, accounting, law, advertisement and media

Comparison of Typical Samples

This is a method whereby one or more typical samples are selected from sample cities in accordance with uniform standards; then some of the indices about these samples are compared; the data for these typical samples are used as the data of the cities; and relevant standards are developed for comparison.

1 Scope of application

The enterprise index is developed by selecting typical enterprises in typical industries, scoring key aspects of these enterprises (five-point scoring system) in accordance with a uniform standard, and obtaining the final score by summing the points. Enterprises are microscopic bodies, or economic cells of a city. Through the development level, the soundness of the mechanism, the sophistication of management, business operation, brand and performance of individual enterprises, we could gain insight into the general situation of enterprises within a city.

2 The selection of samples

In the first step, typical industries are identified. In order to make an accurate judgment of the urban leading industry, we searched related websites and publications for the city's general condition to understand its comprehensive situation, especially that of the leading industries, and at the same time took into consideration its employment structure and data with regard to the value of the output and other statistics. The major judgment resources for the comprehensive analysis of the urban industry are as follows: Baidupedia, Wikipedia, Google search engine, the urban official website, and the website of the urban or state statistics bureau. Next is the selection of the typical enterprises. In order to make the data collection more convenient, the listed corporations are the first group to be investigated. It has been proved that the listed corporations have complete systems, better management, and more transparent financing than the unlisted corporations. Moreover, judged comprehensively, the very fact of its getting listed indicates that an enterprise bears considerable strength and stature. Among the listed corporations, those that are among the Forbes Global 2000 and conform to the typical enterprise criteria are our first choice. The Forbes Global 2000 shows the scale and world influence of the selected enterprises. Therefore, these enterprises undoubtedly hold a pivotal position among the enterprises in the city where their headquarters have been established.

3 Assessment standards

There are six level-II indices and 14 level-III indices for the Enterprise Quality. Each level-II index is a sum of the level-III indices. The following are the standards for the scoring of the 14 level-III indices.

Corporate culture The corporate culture is accumulated during the business operation of an enterprise, and will be accepted and observed by all the staff. It consists of the mission, prospects, principle, spirit, value and operational concepts that are characteristic of the enterprise, as well as the comprehensive representation of these concepts in its business operation, management system, employee conduct and external

image. We adopt the two second-level indices, the external social responsibility and entrepreneurship to measure corporate culture.

Social responsibilities. To investigate an enterprise's social responsibility, we can first find whether there is a special section on this in its website or whether it has established a special department for this. The existence of such a section or department shows that its social responsibility has been systemized, and we will give the enterprise five points; if there is no such a section on its website but there are detailed records of the social responsibility events in its annual reports, we will give it two to four points; if there are only event records, we will give it one to two points.

Entrepreneurship. After gathering the operation concepts and comprehensive performances of all the target enterprises, we find that one successful experience of the world famous enterprises is to construct a good corporate culture and an operations concept. Furthermore, owing to their advanced operations concept and prominent operation thinking, modern high-tech enterprises have been developing very fast. Moreover, the corporate operations concept is greatly related to the industry in which an enterprise is situated. Generally speaking, the high-tech enterprises in such industries as medicine, new energy and electronic information tend to have an advanced operations concept because of the innate need of the rising industries to advance with the time. Therefore, the enterprise popularity and the industry features are taken into consideration in the scoring process. The famous high-tech enterprises are given five points, the famous non-high-tech enterprises are given four points, non-famous high-tech enterprises are given three points, the non-famous and non-high-tech enterprises are given one to two points.

Corporate systems Our sample enterprises consist of listed companies and non-listed companies. A modern corporate governance system has been established in all of the listed companies. We can become familiar with the corporation's management system through its annual report. In order to enhance operability, we adopt the two second-level indices of largest shareholder proportion and stock ownership incentive as the criteria. Neither over-centralization nor over-dispersion of stock ownership is good for the corporate development. By gathering the information on the shareholding of the largest participant in the sample corporations, we classified the shareholding of the largest participant into five grades (see Table 2.2). Non-listed companies are scored in accordance with the level of economic development and market openness of their respective countries, which are divided into three groups: developed countries, emerging market-oriented countries and developing countries. The highest score is three points and lowest one point.

The investigation of the corporate stock ownership incentive is also based on the economic development level and market opening-up degree of the country or region where the enterprises are located, including the three circumstances: developed countries, emerging market-oriented countries and underdeveloped countries. The completeness and operability of an enterprise's incentive system will be analysed to make a comprehensive scoring based on the information provided by its financial reports and website. The stock ownership incentive will be scored from one to five.

Table 2.2 The largest shareholder proportion scoring criteria

Largest shareholder proportion = x	Marks
$5\% < x \leq 15\%$	5
$x \leq 5\%$	4
$15\% < x \leq 30\%$	3
$30\% < x \leq 50\%$	2
$x > 50\%$	1

Business management The corporate management is a systematic project. We examine the following three aspects: external supervision, financial management and corporate strategy.

Scoring of the external supervision. The establishment of the independent corporate directors is favorable to the professional operation of the company and can improve its capability of maintaining sustainable development. Independent directors can provide the company with constructive advice on its development with their professional knowledge and independent judgments, and assist the management in enhancing all aspects of the business operations. This helps to improve the company's decision-making and reputation, as well as its value. It has been proved that independent directors are related to higher corporate value. Those companies which have active independent directors have been operating better than those with passive non-independent directors. It is very hard to judge whether independent directors have effectively performed their duties, therefore, we judge the external corporate supervision system on the basis of the proportion of the independent directors to the non-independent directors, as well as the effectiveness of the macro-market where the company is operated. If it has independent directors, a company will be first given the basic marks of two points. Next, on the basis of the development level of the country where it is located, the company will be given another two to three points if it is in a developed country or two points if it is in an emerging market-oriented country, or one point if it is in a developing country. The non-listed companies will be given one point here.

Financial management. A company is required to have a fully developed financial system and highly transparent financing to get listed. The corporate financial management can be reflected by the financing requirements of the stock market. Table 2.3 contains the detailed scoring criteria.

Evaluation of the development strategy. The corporate development strategy is its orientation and its essence. Whether the corporate development strategy is successful or not will be judged according to future development after the implementation of the strategy. In our scoring process, the strategic statement of the corporate development course and its history as well as its current development status will be taken into consideration for comprehensive judgment. If it has systematic strategic statements, a company will be given the basic mark of one point. If it is located in a developed country and has a diversified or product-upgrade strategy, it will be given four to five points; if it is located in an emerging market-oriented country and has a diversified or product-upgrade strategy, it will be given three to four points; if it is located in a developing country and has a diversified or product-upgrade strategy, it will be given two to three points; and if it has

Table 2.3 Financial management scoring criteria

Location of listing	Marks
● Global financing centers: New York, London and Tokyo	5
● International financing centers: Singapore, Hong Kong, Frankfurt, NASDAQ American Stock Exchange	4
● The stock markets of other developed countries	4
● Emerging market-oriented countries	3
● The stock markets of developing countries	3

Table 2.4 The corporate manufacture technical-level scoring criteria

The corporate manufacture technical level	Marks
The world-leading technology	5
The industrial leading technology	4
The standard technology	3
Low technology	2
Non-technological	1

one successful case, it will be given another point, but the total score cannot exceed five points.

Business operation The logic of observation for corporate operation is designed mainly according to the process of product research and development, manufacture, market development and service, and so on, and to investigate mainly through the following three second-level indices: corporate capability of research and development, technical level of production manufacturing, and marketing strength.

The R&D/revenue ratio, which is intended for the manufacturing industry, will be different in different industries. Industries such as emerging electronic information, biopharmacy and new energy require more R&D investment, while in traditional manufacturing industries, owing to their mature technology, their R&D investment is relatively low. The scoring range for R&D/revenue ratio is from one to five points.

The technical level of manufacturing production has been established only for the manufacturing industry. According to the industry status, industry links, product quality, industry recognition, as well as patents registered for each corporation, we classify the technical level into the five categories, including world-leading technology, industrial leading technology, standard technology, low technology and non-technological. The technical comparison is carried out among the enterprises in the same industry. Table 2.4 shows the scoring criteria for the technical level of each manufacture corporation.

The market range. Through research, we discover that successful corporations will all develop the markets outside their own country. The establishment of branches in a foreign country not only means that its products have entered the foreign market, but also indicates that it has certain influence in that country and has long-term or stable cooperation with the local clients. With the branch establishment as the basis, we can divide the

Table 2.5 Market range scoring criteria

Market range	Marks
With its branches covering four to five regions	5
With its branches covering beyond its own region	4
With its branches covering its own region	3
With its branches covering beyond its own country but not covering its own region	2
Only establishing branches in its own country	1

world into five regions: North America, South America, Africa, Asia-Pacific and Europe. Moreover, according to the different regions where the corporate branches are established, we can classify the enterprises into international enterprises, regional enterprises and local enterprises. The detailed scoring criteria for this are shown in Table 2.5.

Corporate brand Corporate brand includes the popularity of the enterprise and its product brands. Distribution of a questionnaire is the best means for the survey of this index. Our survey and scoring are focused on online users. The corporate brand is the corporate popularity. There is a direct relationship between the public concern status for a company and the traffic of its website. The relevant data will be obtained by counting the number of hits on the corporate website during three months through the virtual connection website (<http://www.alexa.com>). The strong point of this data source is that it can be easily operated and tends to be standard and uniform. The points given in accordance with the corporate website traffic range from one to five.

Corporate performance Corporate performance can be analyzed from several aspects: the profit growth rate index reflects the corporate growth status, and the return on equity index reflects the profit return to the shareholders. Therefore, they are very good index references for evaluation of a corporation. The research method for this is to record the respective corporate growth rate as well as return on equity (ROE) in 2005 and 2006, and treat them through indexation. The scoring in accordance with the corporate performance ranges from one to five points.

The Scoring of Relevant Materials by Experts

The scoring of relevant materials by experts is an approach whereby key points are surveyed briefly in accordance with specific aspects of the indices involved; standard grades are identified; information on relevant data and other materials of the sample cities are collected and assessed; and scoring is made by experts accordingly. It is a qualitative as well as quantitative method. A number of aspects are identified in accordance with the requirements for the specific target of assessment. Then specific assessment standards are developed to reflect the general levels of the cities in particular aspects. A score system with score ranging from five points to one point (using the 100-point system or the original index system) is established. Then experts could score the aspects in accordance with information available and relevant situations.

1 Scope of application

In this report, the indices that adopt the expert scoring method include: the routine management capability, the emergency management capability, development experience and development strategy, and so on, in the soft environment index system, and the natural location (that is, the distance to rivers, lakes and seas), the social location (that is, the distance to the world-famous cities and the intercontinental-famous cities), the railway network and the road transportation infrastructure, and so on, in the global connectivity index system.

2 Standards employed

Routine management capability The municipal government's routine management capability is one of the important indices of judging the city's public management function. It is one of the important methods of improving the city's public management level to greatly improve the municipal government's routine management capability and realize truly sustainable and effective government routine management. The total score of the municipal government's routine management capability is five points, which is divided into the following three aspects: if its management regulations are complete, the city will be scored one point; if the urban management organization is complete, it will be given one point; according to the frequency and severity of disasters and accidents in the urban sanitation, public security, production, construction, transportation and environmental protection, and so on, the best performance will be scored three points, the next best will be scored two points and the worst will be given one point. The relevant information provided by the municipal government website, Google, Baidupedia and Wikipedia, will also be referred to in the scoring process.

Emergency management capability The government's emergency management does not start from the moment when the crisis takes place. Routine administrative behavior and individual social habits are the most important factors that decide the response of the government and citizens to the crisis. Whether the crisis-handling mechanism is rapid and effective depends on whether the municipal government has established a complete set of highly efficient emergency management mechanisms that can work at any time in normal circumstances. The total score of the municipal government's emergency management capability is five points, which involves the following three aspects: if its management regulations are complete, the city will be scored one point; if the urban management organization is complete, it will be given one point; according to whether there is an emergency management mechanism for serious natural disasters and accidents, the best performance will be marked three points, the next to the best will be give two points, then one point, and one to two points will be deducted if there is no such emergency management mechanism. The relevant information provided by the municipal government website, Google, Baidupedia and Wikipedia will also be referred to in the scoring process.

3 Urban development experience

The total score of the urban development experience is five points, which is divided into the following four aspects: the rapid economic and social development in the most recent

ten years will be marked one point; the successful transformation and upgrading of the city, as well as the obvious improvement of the industry structure in the most recent ten years will be scored one point; the city's self-assessed success experiences in the most recent ten years will be scored one point; the globally spread success experiences and cases in the most recent ten years will be scored two points.

4 Urban development strategy

The total score of the urban development strategy is five points. The existence of a systematic urban development strategy statement is scored one point; the appropriate urban development approach is scored one point, which is judged according to whether the urban development approach is diversified and whether the urban development strategy is differentiated; the existence of a definite urban orientation is scored one point; the existence of urban brands and urban marketing is scored one point; the emphasis on such key factors as talents, technology, knowledge, harmony, ecology, diversity and integration in the urban development strategy is scored one point.

Natural location: the distance to rivers, lakes and seas The total score of the urban natural location is five points. The urban location in the intersections of seas and rivers is scored five points; the urban location in coastal regions is scored four points; the urban location within 200 kilometers' distance from the sea, or on important rivers or lakes, is scored three points; the urban location within 500 kilometers' distance from the sea, or the existence of important rivers in the city, is scored two points; the urban location over 500 kilometers away from the sea is scored one point.

Social location: the distance to the world-famous cities and intercontinental-famous cities The scoring will be made according to Google Map, Google Earth and the relevant description of the urban location will be referred to. The cities within one hour's flight from the world's top cities, or that are top intercontinental cities themselves, are scored five points; the cities within three hours' flight from the world's top cities, or within one hour's flight from the top intercontinental cities, are scored four points; the cities within five hours' flight from the world's top cities, or within three hours' flight from the top intercontinental cities, are scored three points; the cities within ten hours' flight from the world's top cities, or within five hours' flight from the top intercontinental cities, are scored two points; the cities beyond ten hours' flight from the world's top cities, or beyond five hours' flight from the top intercontinental cities, are scored one point. The world's top cities include: London, New York and Tokyo. The top intercontinental cities include: Paris, Chicago, Los Angeles, Frankfurt, Hong Kong, Singapore and Rome. The flight information can be obtained from the flight and air ticket websites of the major airline companies.

Railway network The scoring will be made according to the urban electronic map, Google Map and Google Earth, and the relevant description of the urban transportation status will be referred to. If it has six or more than six railway lines, the city will be scored five points; if it has four to five railway lines, the city will be scored four points; if it has three railway lines, the city will be scored three points; if it has two railway lines, the city will be scored two points; if it has one railway, the city will be scored one point.

Road transportation infrastructure The scoring of the urban highway infrastructure will be made according to the urban electronic map, Google Map and Google Earth, and the relevant description of the urban transportation status will be referred to. If it has five or more than five expressways, the city will be scored five points; if it has four expressways, the city will be scored four points; if it has three expressways, the city will be scored three points; if it has two expressways, the city will be scored two points; If it has one expressway, the city will be scored one point.

GLOBAL URBAN COMPETITIVENESS: ASSESSMENT AND CALCULATION METHODS

The global urban competitiveness assessment system is developed from the research model in the annual report on urban competitiveness.¹ *The Global Urban Competitiveness Report – 2010* comes down in one continuous line with the annual report on urban competitiveness in terms of competitiveness analysis framework and main thoughts, and refers to it in the setup of the index system. But owing to the change of research object, research topic and audience, as well as the restrictions of many subjective and objective factors in the course of data collection, compared with the annual report on urban competitiveness, this book has made certain updates and adjustment in the competitiveness assessment system and measurement methods. Out of academic prudence, the results and main conclusions from the index system used in this book are not directly comparable to the annual report on urban competitiveness. We suggest readers consider the two as the measurement of urban competitiveness from different angles and levels. Next we introduce the technical problems in data processing and integration.

Standardization of First-Hand Data

The index system of the global urban competitiveness is enormous, with numerous data. The dimension varies from index to index. First, it needs to conduct the standardized integration. All the index data have to go through non-dimensional processing. The objective indices can be divided into singular objective indices and composite objective indices. To conduct the non-dimensional process to the original data of singular objective indices, this chapter primarily adopts the standardization, indexation, and threshold value method. The formula for computing standardization is:

$$X_i = (x_i - \bar{x})/Q^2$$

x_i is the original data, \bar{x} is the mean, Q^2 is the variance, X_i is the data after the standardization.

The calculation formula of the indexation method is:

$$X_i = x_i/X_{0i}$$

x_i is the original value, X_{0i} is the maximum, X_i is the index.

Threshold value method:

$$X_i = (x_i - x_{\min}) / (x_{\max} - x_{\min})$$

x_i is the value after the conversion, x_{\max} is the maximum sample value, x_{\min} is the minimum sample value, X_i is the original value.

The non-dimensional processing of original data of composite objective index is as follows: first, conduct quantitative process to the single index in the component, and then use the equal weight method to acquire the composite index.

Global Urban Competitiveness Index (GUCI) of the 500 Cities

In the course of the combination of comprehensive competitiveness indices, the non-linear weighted integration method is adopted. The so-called non-linear weighted integration method (or multiplicative integration method) uses the non-linear model:

$$y = \prod_{j=1}^m x_j^{w_j}$$

to conduct the comprehensive assessment. In the formula, w_j is the weight coefficient, $x_j \geq 1$. As far as the non-linear model is concerned, when computing the nine explicit indices of the urban comprehensive competitiveness, as long as one index is extremely small, the value of the comprehensive competitiveness will approach zero rapidly. In other words, this assessment model is sensitive to indices of small value, and less so to indices of relatively large value. By using the non-linear weighted integration method to measure the urban competitiveness, we can reflect the composite indices more comprehensively and scientifically.

While we synthesize the nine explicit indices, we first employ the threshold value method to the index data in the non-dimensional processing, and then get the integrated value by applying the non-linear weighted integration method. What needs to be pointed out is that in the course of the non-dimensional processing, some indices with the value of 0 are conferred the minimum of 0.05 to avoid the phenomenon of 0 integrated product when integrating the indices. See Table 2.6 for the weights adopted.

After determining the weights of measuring indices in the comprehensive competitiveness index integration, we can employ the non-linear weighted integration method to calculate the comprehensive competitiveness index of each city, in order to rank the comprehensive competitiveness of the 500 cities.

Table 2.6 Overview of weights of explicit indices

Index	Normal exchange rate/real exchange rate	GDP	GDP per capita	GDP per square kilometer	Real economic growth rate (for 5 years)	Employment rate	Labor productivity	Number of international patent applications	Multi-national Corporation Score	Summation
Weight	.05	.05	.1	.1	.2	.1	.1	.05	.05	.8

Assuming that such indices as the normal exchange rate/real exchange rate, gross GDP, GDP per capita, GDP per square kilometer, real economic growth rate (for five years), Multinational Corporation Score employment rate, labor productivity, number of international patent applications and are expressed with, $x_1, x_2, x_3, x_4, x_5, x_6, x_7$ and x_9 , the comprehensive competitiveness indices can be integrated by using the above non-linear model, here $w_1, w_2, w_3, w_4, w_5, w_6, w_7, w_8$ and w_9 are 0.05, 0.05, 0.1, 0.1, 0.2, 0.1, 0.1, 0.05, and 0.05 respectively.

The Input Index System and Subentry Competitiveness Index of the 150 Cities in the World

While integrating the input subentries of competitiveness indices by grade, we adopt the simple linear average method, namely, conferring on every index the same weight. The subentry competitiveness singular indices are divided into three levels, where the third level indices can be integrated into secondary level indices after the indexation, and then the secondary level indices can be integrated into first level indices. However, since some level-III indices come from the reports of other research institutes, they probably have been integrated. Table 1.3 exhibits the integrated hierarchy relationship of indices at various levels. Those indices of composite graded data at the third level are also marked out.

Regression Analysis

Some variables are connected by known functional relations. For many others, however, no known functional relation exists. If variable y changes in line with variable x , but the value of variable y cannot be obtained even though the accurate value of variable x is known, the relation between variables y and x is called correlation. Regression analysis is a statistical method for the study of correlations between variables.

To discuss the relations between the indices, one-variable linear regression analysis method is used on the basis of urban competitiveness assessment to determine the relations between cities and their explanation ability in accordance with their respective regression coefficients and levels of fitness of good.

1 One-variable linear regression model

The one-variable linear regression mode is as follows:

$$y = a + bx$$

where a and b are regression coefficients.

$$a = \frac{\sum_{i=1}^n y_i - b \sum_{i=1}^n x_i}{n} = \bar{y} - b\bar{x}$$

$$b = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\sum_{i=1}^n (x_i - \bar{x})^2} = \frac{\sum x_i y_i - \frac{1}{n} \sum x_i \sum y_i}{\sum x_i^2 - \frac{1}{n} (\sum x_i)^2}$$

Calculate a and b based on data obtained from experiments. Then the definite one-variable linear regression model and the definite regression line are obtained.

2 Correlation coefficients

γ is a coefficient for the indication of the extent of correlation between variables y and x . It can be used to determine whether the regression model is meaningful, as follow:

$$\gamma = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_{i=1}^n (x_i - \bar{x})^2 \sum_{i=1}^n (y_i - \bar{y})^2}}$$

If $\gamma > \gamma_a, f$, the variables are highly correlated and the regression model is meaningful; otherwise, the variables are poorly correlated and the regression model is not meaningful.

In this study, regression analysis indices are divided into two categories. The first category is nine measuring indices, and the population index. Therefore, mutual regression explanation is made for the ten indices. The second category includes the level-I, level-II and level-III subentry competitiveness indices, which are used for regression analysis on the overall competitiveness and GDP per capita of the cities.

Dynamic Clustering Analysis

The underlying idea of dynamic clustering analysis is to select a number of sample points as the clustering centers in the first place; next, the samples are made to concentrate towards the centers in accordance with specific clustering standards for an initial classification; then judgment is made on whether the classification is reasonable; if not, the clustering centers will be revised; the step is performed repeatedly until the classification is reasonable. There are a number of dynamic clustering calculation methods, among which the most famous ones are the K-average method and the ISODATA method. In this study, the K-average method is employed. The following is a brief introduction to the method.

If there are N samples to be classified, that is, X_1, X_2, \dots, X_n , and there are K clusters, $N \geq K$:

Step 1: randomly select K initial clustering centers, z_1, z_2, \dots, z_k , for example, the first K samples (called the old clustering centers).

Step 2: put each sample into a category of the old clustering centers in accordance with the neighboring principle.

Step 3: calculate the gravity center of each category after the classification. These gravity centers are called the new clustering centers: $y_i = 1/N_i \sum_{x \in \Omega_i} x$, $i = 1, 2, \dots, K$, in which, N_i is the number of samples of category W_i .

Step 4: check whether z_1, z_2, \dots, z_k , equal to Y_1, Y_2, \dots, Y_k respectively; if yes, the calculation is completed; if not, replace z_k with Y_k , and return to step 2.

Based on the above theory, dynamic clustering analysis is made on the sample cities, using the nine explicit indices of the 500 cities.

Fuzzy Curve Analysis Method

In the research into the pivotal factors affecting comprehensive competitiveness the fuzzy curve analysis method is adopted in the report. Fuzzy curve analysis is mainly used to reduce the dimensionality of the input variable and to discover the important factors affecting the output variable. The fuzzy curve analysis method selects the important factors finally by working out contribution flexibility. The theory of fuzzy curve analysis is specified as follows:

1. At the first stage, the fuzzy curve is based on the understanding that the most important variables contributes most significantly to the value of the output.
2. It is also understood that an independent input contributes more significantly to the value of the output than does the interdependent input.
3. The fuzzy curve drawn at the second stage is based on the understanding that if x_u (an input amount) is stochastically dependent on y (an output), then the estimated value of the variance of y in formula $(x^A - y)$ will be approximately equal to the unbiased variance of V_y . Conversely, if the relationship between x_i and y is causal, then we can anticipate the large difference between the estimated value of the variance y and mean square deviation.

It is presumed that the data point containing the number of the data points is as many as a number (L_u) and indicates $(x_1^1, \dots, x_1^N, y1), (x_2^1, \dots, x_2^N, y2), \dots, (x_M^1, \dots, x_M^N, ym), x^1, \dots, x^N$ (an input) is correlative with y (an output), which is substituted by $(y - y^0)^{1.25}$. Here y^0 is applied to make sure the positive value owned by all y . The fuzzy quantity defined at first stage is shown as follows:

$$\hat{y}_s^A(A) = \frac{\sum_{k=1}^M y^k \prod x^i \in AU_k^i(x^i)}{\sum_{k=1}^M \prod x^i \in AU_k^i(x^i)}$$

Here, A is a group of inputs; K can be found by the following five steps.

1. As for every input variable (x^i), the data point $((x_k^i, y^k), k = 1, 2, \dots, M, I = 1, 2, \dots, N)$ can be marked in every formula, $x^i - y$.
2. The fuzzy relation coefficient can be set for very data point in the formula $(x^i - y)$.

$$U_k^i(x^i) = \exp\left(-\left(\frac{x_k^i - x^i}{b}\right)^2\right), k = 1, 2, \dots, M,$$

at time when every data point x_k^i is marked in $y^k U_k^i(x^i)$, as a result it will be $b^i = 0.2 \left(\frac{\max(x^i)}{1 \leq k \leq m} - \frac{\min(x^i)}{1 \leq k \leq m} \right)$.

3. Make $A^0 = \Phi$, the fuzzy curve for the first stage is given; on this curve, $|A| = 1, \hat{y}_s^A(A), A = A^0 + \{x^i\}$, for all $i = 1, 2, \dots, N$.
4. The representation index about \hat{y}_s^A is given:

$$P\hat{y}_s^A = \frac{1}{MV_y} \sum_{k=1}^M (\hat{y}_s^A(Ak) - Yk)^2,$$

where $V_y = (\sum_{k=1}^M (Y_k - \bar{y})^2) / M$, A_k is an aggregate of data points responding to the point K .

5. Find the smallest representation index for \hat{y}_s^A , then make A^1 , belong to this cluster, after that we obtain the most important input. We repeat this process to A^0 and A , thus getting A^2 , the most important index. Repeat this process and we will obtain the most important input variables with the quantity of k .

NOTE

1. Pengfei Ni (2001–08), *China Urban Competitiveness Report*, report series by the Global Urban Competitiveness Project, Beijing: Social Sciences Academic Press.

3. Econometric findings

At the end of Chapter 1, we concluded that measuring index system and explanatory index system of GUCI are both composed of a number of indicators. Therefore, it is difficult to test the correctness of the index systems and to analyze factors affecting global urban competitiveness of specific cities and their significance in affecting the results. In this study, GUCI is integrated by a number of non-linear weighed indicators, including GDP, economic growth rate, GDP per capita, GDP per square kilometer, productivity, employment rate, price advantage indicator, patent applications and the presence of transnational companies. Specifically, the GUCI system consists of seven level-I indicators, including enterprise, human resource, industry structure, soft environment, hard environment and global connectivity (as well as 40 level-II and 105 level-III indicators). To test the rationality of the GUCI indicators, linear and non-linear F-tests and t-tests of the 152 indicators of level-I/II/III were conducted using the GUCI. Both tests got consistent results. Here we would focus on the linear test only. As the comprehensive competitiveness of each city is obtained through the combination of a number of indicators and there might be possible error in the process, linear and non-linear F-tests and t-tests of the 152 indicators of level-I/II/III were conducted again, using the nine GUCI component indicators. If any one of the 152 explanatory indicators passes the correlation test of all nine measuring indicators, that indicator is relevant to the comprehensive competitiveness of the city.

The results show that, by competitiveness as a dependent variable, only 22, or less than 15 percent, of the 152 explanatory indicators failed the F-test. By the nine component elements, only seven, or less than 5 percent, failed the F-test. More specifically, only 1 level-II indicator and none of the level-I indicators failed the test. The t-test showed the same result. Table 3.1 provides some results of the F-test and the t-test. Essentially, it indicates that our sequencing and indicator system design are correct.

Theoretically, the performance of enterprises is supposed to have significant impact on the comprehensive competitiveness of the cities. However, as only short-term return on equity and profit growth were available, and these data were subject to the volatilities of the national and international economies and financial markets, the indicators of return on equity and enterprise performance failed the test. In the future, we would consider data of a longer time span for our study. Theoretically, labor is the foundation of economic development and the competitiveness of each city. However, the number and scale of simple labor is having less and less influence on the competitiveness of a city, as is the population of the city. Labor and population passed the integrated multi-indicator tests, but failed the tests by individual GUCI indicators. Theoretically, living environment has a significant impact on the competitiveness of a city. However, it failed the test for dining, lodging, and culture and entertainment elements. The data of the indicator was sourced from an online survey. In the future, we are going to collect higher-quality data

Table 3.1 GUCI significance test: 7 of the 152 explanatory indicators failed the test

Independent variable	Comprehensive competitiveness				Integration of individual indicator competitiveness			
	F-test value (95% confidence level)	F-test (95% confidence level)	t-test value (95% confidence level)	t-test (95% confidence level)	F-test value (95% confidence level)	F-test (95% confidence level)	t-test value (95% confidence level)	t-test (95% confidence level)
Z1.6.1 Return on Equity	1.053	NO	1.026	NO	3.015	NO	1.736	NO
Z1.6.2 Profit Growth Rate	0.536	NO	0.732	NO	7.062	YES	2.657	YES
Z1.6 Enterprise Performance	0.035	NO	0.187	NO	3.627	NO	1.905	NO
Z3.3.1 Workers in Labor Force	0.34	NO	0.583	NO	41.039	YES	6.406	YES
Z3.3.2 Labor force/population	1.659	NO	1.288	NO	11.428	YES	3.380	YES
Z3.3 Status of the Labor Market	1.3114	NO	1.145	NO	34.738	YES	5.894	YES
Z4.2.3 Effective Exchange Rate	0.532	NO	0.729	NO	7.631	YES	2.762	YES
Z4.4.1 Urban Population	0.001	NO	0.026	NO	43.304	YES	6.581	YES
Z5.1.1 Ratio of Local Revenue to National Revenue	0.564	NO	0.751	NO	12.798	YES	3.578	YES
Z5.2.3 Closing a Business	1.438	NO	1.199	NO	4.556	YES	2.135	YES
Z6.1 Natural Environment	0.882	NO	0.939	NO	5.883	YES	2.426	YES
Z6.4.1 Dining	0.109	NO	0.330	NO	1.417	NO	1.191	NO
Z6.4 Dining & Restaurant	0.000	NO	0.0118	NO	3.389	NO	1.841	NO
Z6.5.2 Housing Price to Income Ratio	0.099	NO	0.315	NO	12.906	YES	3.592	YES
Z6.5.3 Lodging	0.537	NO	0.733	NO	1.0357	NO	1.0177	NO
Z6.6.1 Entertainment	0.717	NO	0.847	NO	2.792	NO	1.671	NO
Z6.6.2 World Heritage	3.134	NO	1.770	NO	12.572	YES	3.546	YES
Z6.6 Culture and Entertainment	3.798	NO	1.949	NO	6.433	YES	2.536	YES
Z6.7.2 Cost of Terrorism	0.491	NO	0.700	NO	7.088	YES	2.662	YES
Z7.3.1 Container Throughput	3.773	NO	1.942	NO	12.205	YES	3.494	YES
Z7.3.2 Berth Draft	1.012	NO	1.006	NO	2.0912	NO	1.446	NO
Z7.3 Water Transportation	2.339	NO	1.529	NO	3.997	YES	1.999	YES
Indicators Failed the Test		22		22		7		7

for indicators of this class. An effective exchange rate, costs incurred by terrorism, and closing of businesses are critical to the competitiveness of a city. As these three indicators are based on data from the World Bank and the World Economic Forum, discrepancy may occur. Although the data indicates that regional autonomy has little to do with the competitiveness of a city, we insist that the expansion of autonomy has positive significance on the competitiveness of a city.

We believe that water transportation connectivity is critical to the competitiveness of a city, but failed to obtain support from the data.

REGRESSION ANALYSIS FOR GUCI INDICATORS

In Chapter 1, we conducted detailed analysis on the mechanism and elements that shape the competitiveness of a city. Specifically, how significant is each of these elements in determining the competitiveness of a city? Which are more important? Having an understanding of the roles of these elements proves to be the precondition for the development and competition strategies of a city. In this part, regression analysis is conducted on the basis of the URCI indicator tests, using the explanatory indicators (including the level-I indicators and key level-II/III indicators) as independent variables, and GUCI as the dependent variable. In the meantime, cause-and-effect analysis is conducted using GDP per capita as the dependent variable and the explanatory indicators. See Table 3.4 at the end of this chapter for the overall result of the analysis.

Level-I Indicators: Industry Structure Being the Most Important

The regression analysis on the seven level-I explanatory indicators shows that industry structure has the biggest influence on GUCI, with a regression coefficient of 0.8363 and a goodness of fit (R^2) of 0.8231. Once again, see Table 3.4 for the regression coefficient, goodness of fit and correlation coefficient of the indicators. General regression coefficients show the extents of impact of the indicators. Figure 3.1 shows the impact of the seven indicators on the competitiveness of the cities in order of their significance: industry structure > hard environment > global connectivity > human resource > soft environment > enterprise > living environment. Hard environment and global connectivity are important indicators following industry structure. Hard environment includes a number of elements of technological innovation. In today's world of economic globalization, global connectivity is as important as hard environment to a city. This indicates the importance for cities, as major players in global competition, taking the path of internationalization and building international metropolises. It should be noted that human resource is critical to the competitiveness of a city. However, in this study, the human resource includes a considerable proportion of labor status indicators. As a result, human resource does not seem as important as we previously thought.

Level-II Indicators: Enterprise Connectivity Being the Most Important

Among the 152 indicators, 40 are level-II indicators. See Table 3.4 below for the regression coefficients, goodness of fit (R^2) and correlation coefficients obtained through the

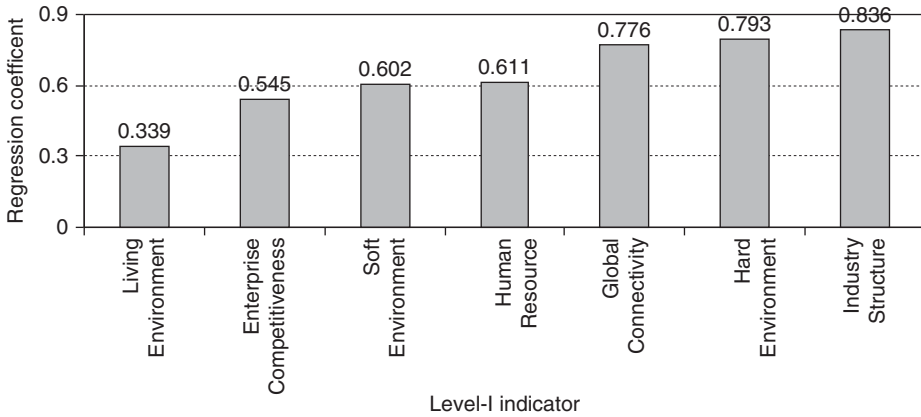


Figure 3.1 Regression coefficients for level-I explanatory elements (indicators) of comprehensive competitiveness

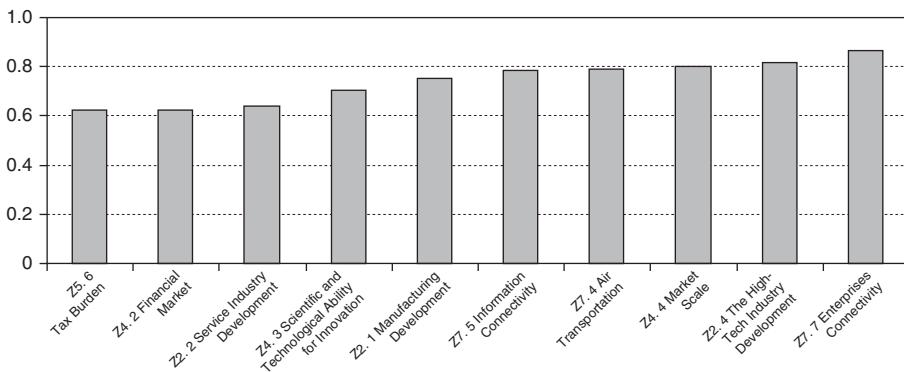


Figure 3.2 The ten level-II explanatory elements (indicators) with the highest comprehensive competitiveness regression coefficients

regression analysis. Particularly, see Figure 3.2 for the top ten indicators, among which, enterprise connectivity ranks number 1. Enterprise connectivity > hi-tech industry > market size > air transportation > information connectivity > manufacturing industry > technological innovation > service sector > financial market > tax burden. Enterprise connectivity describes the ability of individual enterprises to control the global economy. It is a distinct indicator of a city's competitiveness in the context of economic globalization. Indicators such as high-tech industry, manufacturing industry and service sector fall into the scope of industry structure, while other indicators fall into the scope of global connectivity. It further proves the contribution of industry structure and global connectivity to the competitiveness of the cities.

Figure 3.3 shows the ten elements with the least impact (the largest reverse impact).

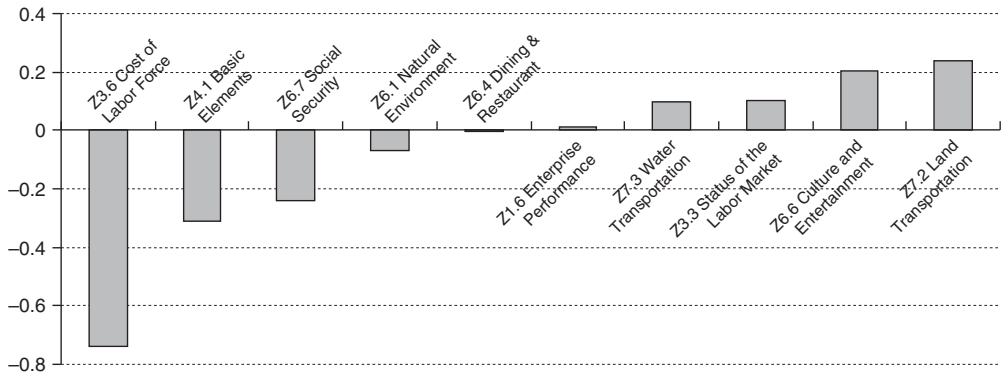


Figure 3.3 The ten level-II explanatory elements (indicators) with the lowest comprehensive competitiveness regression coefficients

While labor cost, infrastructures, social security, natural environment, and catering service have the largest negative impact on the competitiveness of cities, enterprise performance, water transportation, status of labor market, culture and entertainment, and land transportation have the least contribution to the competitiveness of the cities. All of the above ten indicators are basic elements in production and living environment. They are fundamental to the citizens and urban development of the cities. However, these basic elements are less important than higher-level indicators in international competition of the cities (the 150 sample cities) as long as there is no significant bottleneck or gaps.

Level-III Indicators: Capital Market Being the Most Important

Among the 152 indicators, 105 are level-II indicators. See Table 3.4 below for the regression coefficients, goodness of fit (R^2) and correlation coefficients obtained through the regression analysis. Specifically, the ten most influential indicators include: capital market, number of transnational company headquarters, international patent applications, number of transnational company regional headquarters, the number of international hotel groups, feedback from government portals, airport handling capacity, the number of renowned universities, the number of transnational business service providers, and the number of transnational manufacturers (see Figure 3.4). These indicators mainly describe the elements of financial capital, technological innovation, economic control and industrial layers, which are critical to the competitiveness of individual cities.

Notably, the ten least influential or most negatively influential indicators are (sequentially) hotel room price, employees' income, office rental, electric power price, living cost, per capita land area, criminal rate, per capita fresh water ownership, and weather environment (see Figure 3.5). In the regression analysis, the price of restaurant, employees' earning, office rental, electricity price and living cost have been treated reversely in regression analysis. Therefore, the higher the indicators are, the more competitive a city

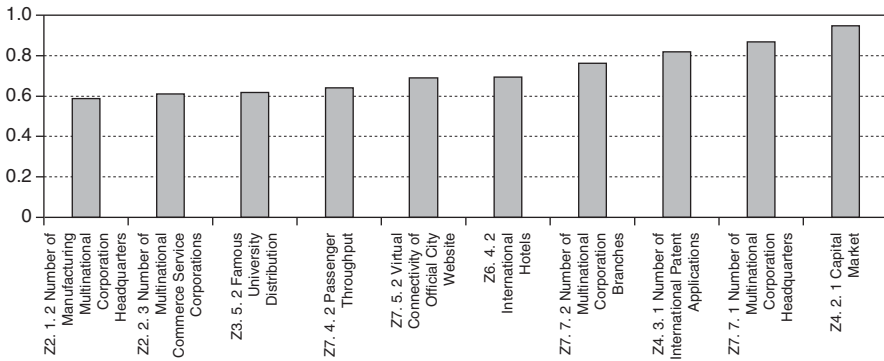


Figure 3.4 The ten level-III explanatory elements (indicators) with the highest comprehensive competitiveness regression coefficients

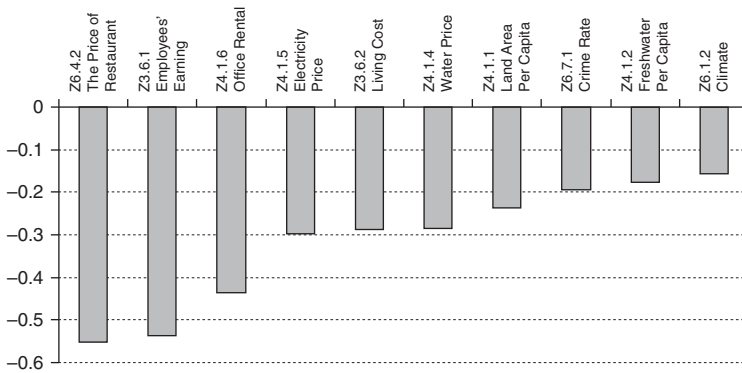


Figure 3.5 The ten level-III explanatory elements (indicators) with the lowest comprehensive competitiveness regression coefficients

is. Land and water are the most fundamental elements for the survival and development of human beings and cities. However, our analysis shows that it is not ‘the more, the better’.

CORRELATION AND CLUSTERING ANALYSIS FOR GUCI MEASURING INDICATORS

In this part, we conducted dynamic clustering analysis method on each of the nine indicators plus the population of the 500 sample cities (the table for the Final Cluster Centers has not been included, owing to limited space). Then we conducted one-variable linear regression analysis on the ten indicators of the 500 sample cities, in general and by groups. Some of the findings were quite surprising.

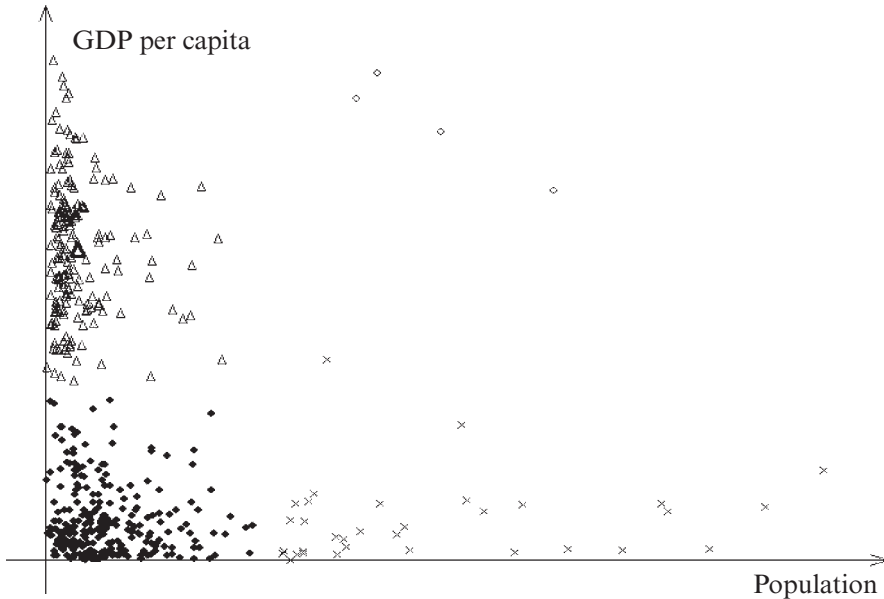
Table 3.2 Comparison of GDP per capita ranking and population ranking

Top ten cities with largest difference of higher GDP per capita ranking and lower population ranking Million					Top ten cities with largest difference of lower GDP per capita ranking and higher population ranking Million						
City	GDP per capita (US\$ ten thousands)	Ranking	Population (million persons)	Ranking	Ranking difference	City	GDP per capita (US\$ ten thousands)	Ranking	Population (million persons)	Ranking	Ranking difference
Geneva	62 676.92	1	1.019	481	480	Delhi	1556.96	422	12.9	7	415
Basel	55 247.85	9	0.017	484	475	Kolkata	1537.94	423	14.277	6	417
Reykjavik	49 048.46	27	0.011	497	470	Pune	798.9	465	4.211	45	420
Belfast	56 105.86	8	0.027	461	453	Hyderabad	887.5	454	6.205	32	422
Bergen	51 169.84	18	0.024	467	449	Pyongyang	444.6	487	3.351	65	422
Brussels	44 580.74	46	0.014	489	443	Karachi	1152.57	438	11.608	10	428
Aberdeen	46 730.45	37	0.021	477	440	Chennai	895.47	453	7.204	24	429
Hobart	46 133.33	40	0.020	479	439	Addis Ababa	308.47	497	3.666	55	442
Nottingham	51 438.05	17	283 200	453	436	Yangon	360.95	493	4.082	49	444
Regina	44 035.58	52	179 040	482	430	Kinshasa	206.77	500	6.049	35	465

Population Is Negatively Correlated with GDP Per Capita

Gross domestic product per capita is an important indicator of the development level and competitiveness of a city. According to the theories on hierarchical structure of urban system, cities are in different levels in terms of size. In general, central cities have higher levels of industry structure and economic development, and better ability to command, influence and drive development than that of smaller cities. However, our regression analysis on the GDP per capita and logarithmized populations of the 500 sample cities resulted in a regression coefficient of -0.5617 and goodness for fit of 0.3443 , showing a negative correlation. We then conducted regression analysis on the logarithmized GDP per capita and logarithmized populations of the top 150, middle 200 and bottom 150 cities in terms of population, and obtained their regression coefficients: 0.0236 , -0.3032 and -0.0100 , and goodness of fit: 0.0258 , 0.3213 and 0.0061 . For the top 150 cities, there is a weak positive correlation between their GDP per capita and population; for the middle 200 cities, there is a distinct negative correlation; and for the bottom 150 cities, there is a weak negative correlation. By comparing the population and GDP per capita rankings of the 500 sample cities in Table 3.2, we could draw similar conclusions.

Clustering analysis of the 500 sample cities by population and GDP per capita



Note: \diamond indicate cluster I; \triangle indicate cluster II; \times indicate cluster III; \blacklozenge indicate cluster IV.

Figure 3.6 Clustering analysis of the 500 sample cities by population and per capita income

indicates that, while a small number of cities, that is, New York, London, Tokyo and Paris (four in total, cluster I) have large populations and higher per capita incomes, and some other cities have small sizes and low per capita incomes (185 in total, cluster IV), the majority of the sample cities are small in size and have high per capita income (278 in total, cluster II). Comparatively, only a small group of cities is large in size and has low per capita income (33 in total, cluster III) (see Figure 3.6).

There may be a few reasons for this: (1) the definition of city is made from an administrative, instead of economic, standpoint; (2) as the flow and concentration of population are restricted by borders, substantial population and economic growth gaps exist between countries; and (3) the output of a city is affected by a number of factors. In fact, similar relations exist between population and GDP per square kilometer and productivity, for which no separate analysis is conducted in this study.

Small Cities Could Have Strong Ability of Innovation Too

The number of internationally accepted patent applications could reflect the general technological innovation ability of a city. In general, large cities are able to attract and control more resources and conditions, and therefore have a better ability to innovate.

However, our research on the population and technological innovation of the 500 sample cities reveals that regression coefficient of logarithmized population on the per

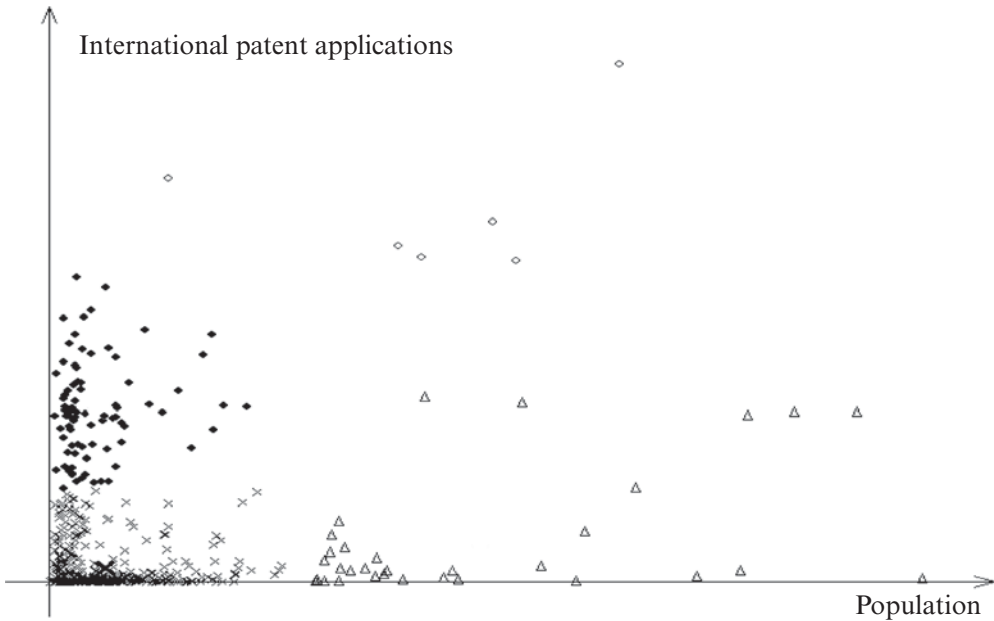
Table 3.3 The top ten cities in terms of patent numbers have higher patent rankings than population rankings

	International patent applications (number)	Ranking	Population (million persons)	Ranking	Ranking difference
Tokyo	89445	1	12.571	8	7
Osaka	39718	2	2.629	87	85
Paris	20364	3	9.773	14	11
London	17968	4	7.700	21	17
New York	16915	5	8.214	19	14
Seoul	16651	6	10.297	13	7
Stuttgart	15277	7	0.592	338	331
San Diego	14338	8	1.257	199	191
San Jose	12309	9	0.916	266	257
Stockholm	11785	10	0.765	289	279

capita income is 0.0004 and the goodness of fit is 0.0002. Obviously, there is no clear correlation between the two. We then conducted regression analysis of the logarithmized number of patent applications on logarithmized population of the top 150, middle 200 and bottom 150 cities, and obtained their regression coefficients: 0.2725, -0.2132 and 0.1665 and goodness of fit: 0.2621, 0.2236 and 0.0914. For the top 150 cities, there is a distinct positive correlation between their number of patent applications and population; for the middle 200 cities, there is a distinct negative correlation; and for the bottom 150 cities, there is a weak positive correlation.

Further comparison revealed that, among the top ten cities in terms of patent numbers (see Table 3.3), there is one that is also among the ten most populated cities, accounting for 10 percent of the total; among the top 50 cities in terms of patent numbers, 13 are among the 50 most populated cities, accounting for 26 percent; among the top 150 cities in terms of patent numbers, 40 are among the 150 most populated cities, accounting for 26.7 percent; among the top 250 cities in terms of patent numbers, 103 are among the 250 most populated cities, accounting for 41.2 percent.

Clustering analysis of the 500 sample cities by population and patent numbers indicates that, among the four clusters, Tokyo, Osaka, Paris, London, New York and Seoul have large populations and patent numbers, and are classified as cluster I cities (see Figure 3.7). Eighty-two cities, including Stuttgart, San Diego, San Jose and Stockholm have large patent numbers but small populations, and are classified as cluster II cities. Most of these cities are in developed countries in Asia, Europe, North America and Australia. Thirty-two cities, including Istanbul, Teheran, Mexico City, Sao Paulo, Rio de Janeiro, Santiago, Bogota, Lima and Cairo have large populations and considerable innovation ability. Most of them are leading and central cities in developing countries, and belong to cluster IV. Cluster III cities, 380 in total, have small sizes and patent numbers. Most of these cities are located in developing countries in Asia, Africa and Latin America. The research indicates that many small and middle-sized cities in developed countries have



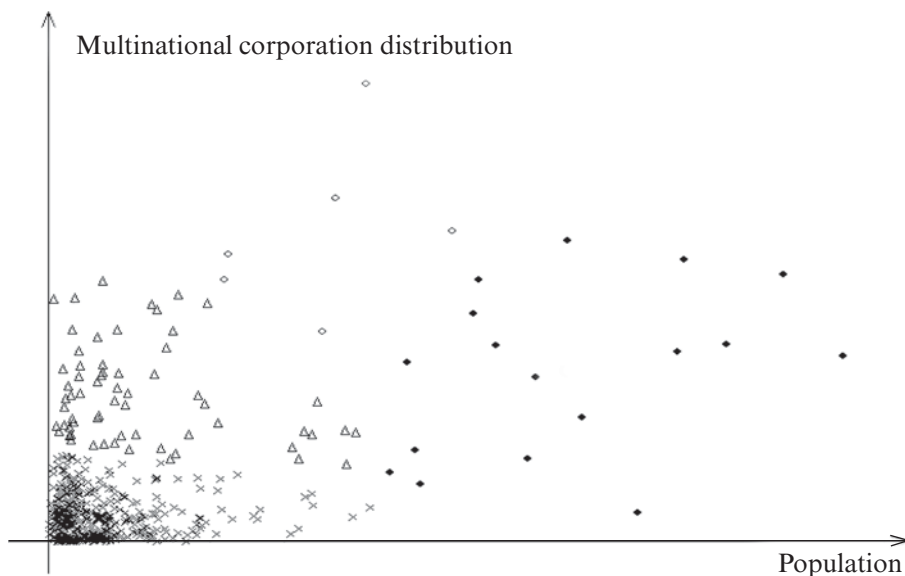
Note: \diamond indicate cluster I; \blacklozenge indicate cluster II; \times indicate cluster III; \triangle indicate cluster IV.

Figure 3.7 Clustering analysis of the 500 sample cities by population and patent numbers

a greater ability to innovate than major cities in developing countries, and could well be innovation centers.

Transnational Companies Do Not Necessarily Prefer Major Cities

The number of transnational companies is often used to study the ability of a city to control the economy. Our research on the population and economic control capability of the 500 sample cities reveals that the regression coefficient of logarithmized population to the number of multinational corporation (MNC) headquarters is 0.4159 and the goodness of fit 0.2758. Obviously, there is a positive correlation between the two. Then we conducted regression analysis of the logarithmized number of MNC headquarters to logarithmized population of the top 150, middle 200 and bottom 150 cities in terms of population, and obtained their regression coefficients: 0.4436, -0.0865 and 0.10541, and goodness of fit: 0.4617, 0.0998 and 0.0365. For the top 150 cities, there is a distinct positive correlation between their transnational company numbers and populations; for the middle 200 cities, there is a weak negative correlation; and for the bottom 150 cities, there is a weak positive correlation. Clustering analysis of the 500 sample cities using population and transnational company numbers as indicators reveals that, while it is true that some large cities have more transnational companies, most small cities have less (see Figure 3.8). For example, the top ten cities in terms of transnational company



Note: \diamond indicate cluster I; \blacklozenge indicate cluster II; \times indicate cluster III; \triangle indicate cluster IV.

Figure 3.8 Clustering analysis of the 500 sample cities by population and transnational company number

numbers, for example, New York, London, Hong Kong, Paris, Tokyo, Singapore, Beijing, Shanghai, Moscow and Sydney all rank among the 50 most populated cities. However, we also find that many small cities, for example, Brussels, Zurich and Bratislava, are among the top 50 in terms of transnational company number, while their populations are below the top 400. This indicates that, given the context of economic globalization and the great improvement in technology and transportation conditions, transnational companies generally tend to prefer global, national or regional centers. However, some small cities with unique advantages are also attractive.

GDP Per Capita and Economic Growth: The Reversed U-Curve

Cities of different development stages have different economic growth rates. This study has proven this conclusion. We conducted regression analysis of the GDP growth rates of the 500 sample cities during the 2001–05 time frame to the logarithmized GDP per capita, and obtained the regression coefficient of -0.2654 and goodness of fit of 0.4117 . Obviously, there is a negative correlation between the two. In other words, the higher the GDP per capita is, the slower the economic growth. We then conducted further regression analysis of the logarithmized GDP growth rates to the logarithmized GDP per capita of the top 150, middle 200 and bottom 150 cities, and obtained their regression coefficients: 0.0662 , -0.4129 and 0.1739 , and goodness of fit of 0.1358 , 0.5181 and 0.3905 . It indicates that there is a reversed U-curve between the GDP growth rate and GDP per capita (see

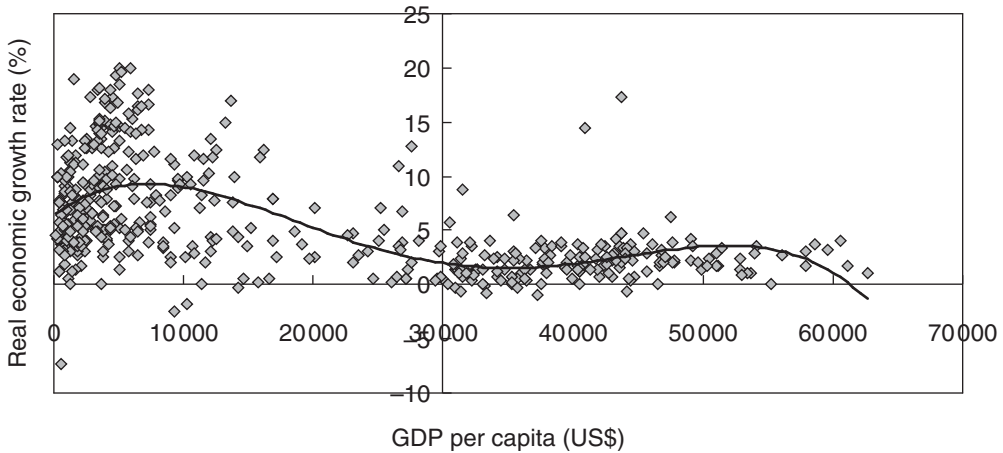
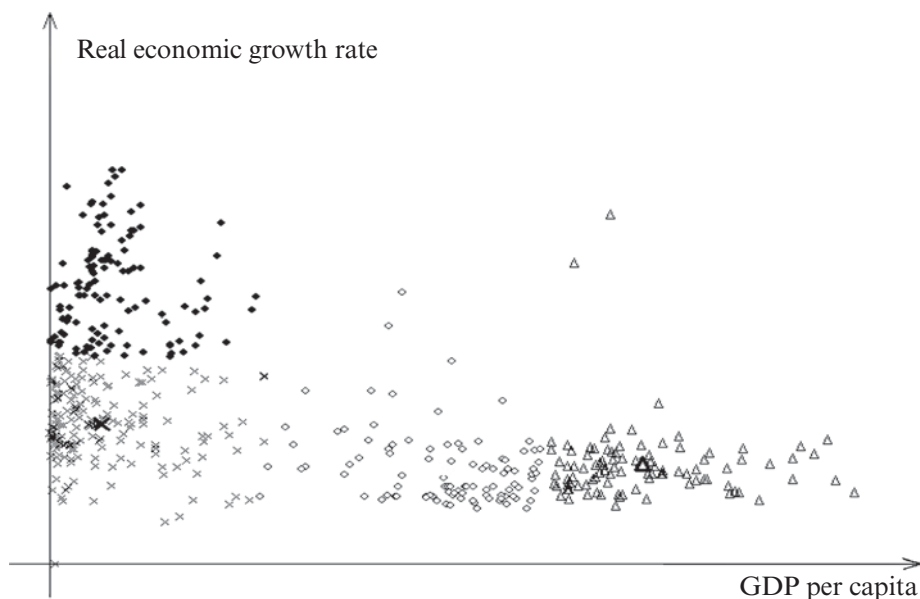


Figure 3.9 The correlation between per capita income and economic growth

Figure 3.9). In other words, cities with the lowest and highest per capita GDPs have the lowest growth rates, while those with middle-level per capita GDPs tend to have higher growth rates. Further calculation by groups reveals that cities with GDP per capita higher than US\$30 000 have low growth rates – an average of 2.27 percent; those with GDP per capita below US\$2000 had an average of 1 percent; and cities with GDP per capita between US\$2000 and US\$20 000 have higher growth rates – an average of 6.58 percent rise correspondingly among those with per capita income ranging from the lowest level to that of US\$5000, declining as the per capita incomes increases from US\$5000 to US\$25 000, and maintaining a low level for US\$25 000 and above.

Clustering analysis of the 500 sample cities by GDP per capita and economic growth rate (see Figure 3.10) indicates that the 97 cluster-I cities, which are mostly distributed in developed countries in Europe, North America and Asia, have very high GDP per capita and very low economic growth rates. Such cities include London, Glasgow, Dublin, Amsterdam, New York, Los Angeles and Chicago. Cluster-II cities have high GDP per capita and low economic growth rates. In total, there are 100 such cities, including Liverpool, Manchester, Lyon, Lille, Rome, Turin, Osaka and Kyoto. Most of these are located in developed countries in Europe, North America and Asia. Cluster-III cities have low GDP per capita and very higher economic growth rates. In total, there are 120 such cities, mostly in China, Russia, India, Mexico and other emerging countries undergoing transformation or industrialization, for example, Suzhou, Hangzhou, Ningbo, Wenzhou, Hefei, Mumbai, Kolkata, Bangalore, Minsk, Moscow and St Petersburg. Cluster-IV cities have very low GDP per capita and low economic growth rates. In total, there are 183 such cities, mostly warring Asian and European cities and less developed African cities.

In general, cities with medium or lower per capita incomes (lower than US\$5000) tend to have higher economic growth rates, while those with the highest and lowest per capita incomes have the lowest economic growth rates. This indicates that cities with



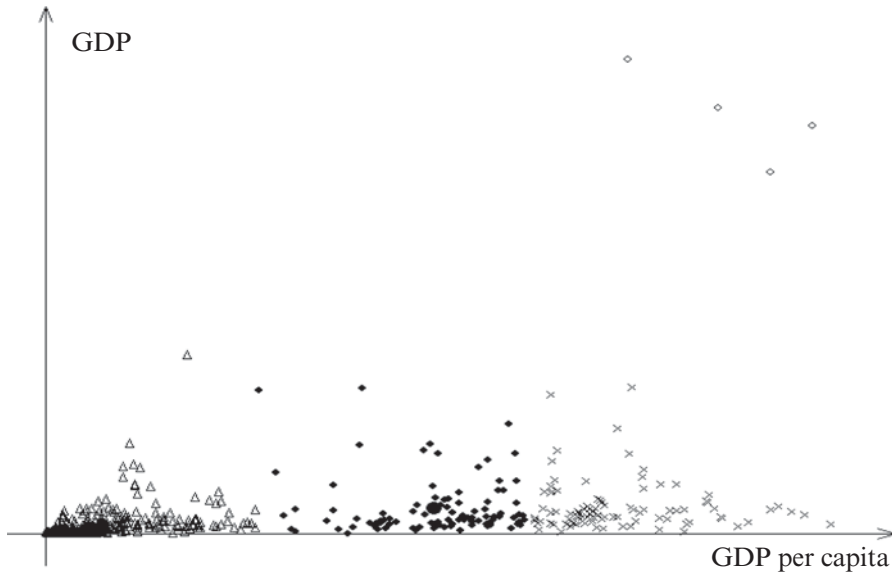
Note: \triangle indicate cluster I; \diamond indicate cluster II; \blacklozenge indicate cluster III; \times indicate cluster IV.

Figure 3.10 Clustering analysis of the 500 sample cities by per capita income and economic growth

the lowest per capita incomes are usually in the initial stages of industrialization and, due to the restriction of basic conditions for growth, cannot achieve fast economic growth. On the other hand, cities with the highest per capita incomes are restricted by high prices of production elements, low capital margins, and cannot achieve fast economic growth either. Those with medium and lower per capita incomes could benefit from their capital accumulation and cheap production elements. As most of these cities are in the stage of accelerated industrialization, they tend to have fast economic growth.

Per Capita Income and Economic Size: An S-Curve

According to the theory of economies of scale, with the expansion of scale, the return first increases and then declines gradually. At least within a given time period, the economic size is positively correlated with GDP per capita. Based on the regression analysis of the GDP to GDP per capita of the 500 sample cities, we identified a positive correlation between the two. The regression coefficient of GDP to GDP per capita is 0.5210, and the goodness of fit 0.7369. It indicates that, to a large extent, the GDP of a city depends on its GDP per capita. We conducted regression analysis of the logarithmized GDP to their logarithmized GDP per capita of the top 150 in terms of GDP sizes. Despite a clear positive correlation, the regression coefficient is as low as 0.1339, and goodness of fit 0.1667. It indicates that the correlation between GDP per



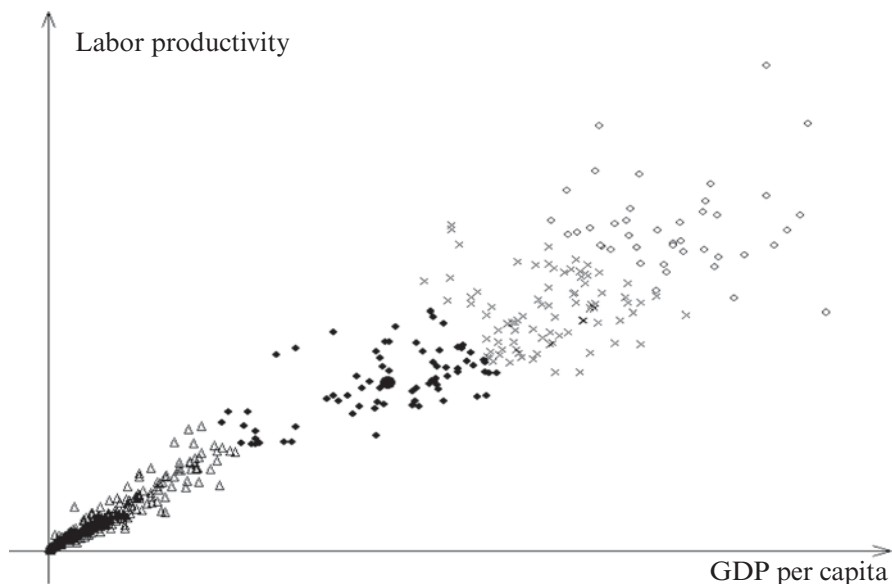
Note: \diamond indicate cluster I; \times indicate cluster II; \blacklozenge indicate cluster III; \triangle indicate cluster IV.

Figure 3.11 Clustering analysis of the 500 sample cities by GDP and GDP per capita

capita and GDP size is low for cities with large economy sizes. Our regression analysis on the last 350 cities indicates a distinct positive correlation between GDP and GDP per capita, with a regression coefficient of 0.7052 and goodness of fit of 0.7217. It indicates a high correlation between GDP per capita and GDP sizes for cities with smaller economy sizes.

In fact, our analysis and observation of the 500 sample cities by groups indicate that it is not a simple linear relation, but an S-curve relation between the two. With further clustering analysis, the cities could be classified into four different clusters (see Figure 3.11). Cluster I cities with high per capita income and large economic size, for example, Tokyo, Paris, New York, London, Los Angeles and Chicago. Cluster II cities have high per capita incomes but smaller economic sizes. In total, there are 93 such cities, for example, Palo Alto, Berne, Norwich and Hamilton. Cluster III cities have low per capita incomes and large GDP sizes. In total, there are 99 such cities, including Shanghai and Beijing. Cluster IV cities have low per capita incomes and small GDP sizes. In total, there are 304 such cities, mostly warring cities in Asia and Europe, or less developed cities in Africa, for example, Vijaywada, Port Moresby, Dushanbe and Groznyj.

The analysis indicates that, for cities with small sizes, GDP per capita (returns) increases notably in line with economic size. However, for those with considerable sizes, the change of per capita income is much more complicated – going down first and then up, indicating that at a higher level, GDP per capita would grow along with the GDP size. Cities of different sizes have different models of change to economic sizes.



Note: ◇ indicate cluster I; × indicate cluster II; ◆ indicate cluster III; △ indicate cluster IV.

Figure 3.12 Clustering analysis of the 500 sample cities by per capita income and productivity

Productivity Differences between Cities are Smaller than their GDP Per Capita Differences

Gross domestic product per capita is the GDP of a city divided by its population. Productivity is the value added created by a unit labor of the working population of a city. There are close relations between the two. Through regression analysis of logarithmized GDP per capita of the 500 sample cities to logarithmized productivity, we obtained the regression coefficient of 1.0739 and the goodness of fit of 0.9884. Obviously, there is a distinct positive correlation between the two. The reason is that the population of a city is highly correlated to the size of its labor force. We conducted further regression analysis on the logarithmized GDP per capita to the logarithmized productivities of the top 150, middle 200 and bottom 150 cities, and obtained their regression coefficients: 0.8125, 1.1635 and 1.1737, and goodness of fit of 0.6538, 0.9620 and 0.9239. Obviously, for each group, there is a notable positive correlation between GDP per capita and productivity. However, it is the highest for the group with the lowest GDP per capita.

With further clustering analysis, the 500 sample cities can be classified into four different clusters (see Figure 3.12). The first cluster features very high per capita income and productivity. In total, there are 42 such cities, including London, Glasgow, Edinburgh, Bristol, Belfast, Paris and Rotterdam. Cluster-II cities have high per capita incomes and productivities. In total, there are 87 such cities, including Dublin, Amsterdam, Bourne, Vienna, Frankfurt and Munich. Cluster-III cities have fairly high per capita

incomes and productivities. In total, there are 76 such cities, including Nassau, Betim, Belgrade, Perth, Auckland (New Zealand), Christchurch, Hamilton (New Zealand). Cities of cluster IV have very low per capita incomes and productivities. In total, there are 295 such cities, mostly warring cities in Asia and Europe and less developed cities in Africa, for example, Freetown, Abidjan, Accra, Lagos, Douala, Yaounde, Kinshasa and Brazzaville.

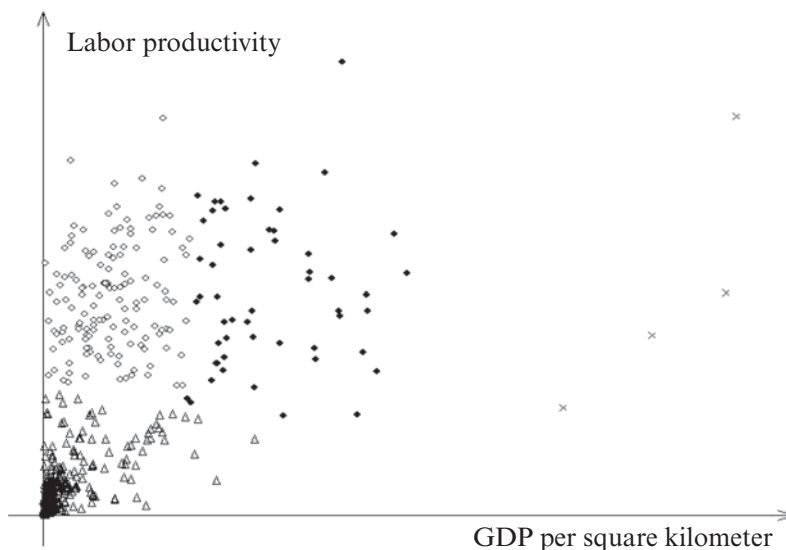
The study confirms the correlation between the two. However, further study indicates that the productivity gaps between the cities are not as wide as those of GDP per capita. While the averages of productivity and GDP per capita of the top ten cities are 158.5 times and 186.2 times of those of the bottom ten, the same averages of the top 150 cities are 21 times and 25.7 times of those of the bottom 150 cities. For some cities with low per capita incomes, both the labor force participation rate and employment rate are low, hence the low productivity. As a result, their productivity gaps are narrower than per capita income gaps.

Economic Clustering Helps Improve Productivity

Gross domestic product per square kilometer is another important indicator of economic clustering. Clustering facilitates the localization, urbanization and complication of the economy, and is helpful to the improvement of productivity. Through regression analysis of logarithmized productivity of the 500 sample cities to the logarithmized GDP per square kilometer, we obtained the regression coefficient of 1.0198 and the goodness of fit of 0.7785. Obviously, there is a distinct positive correlation between the two. We conducted further regression analysis of the logarithmized productivities on the logarithmized GDP per square kilometer of the top 150, middle 200 and bottom 150 cities, and obtained their regression coefficients: 0.2034, 0.5314 and 0.3941, and goodness of fit of 0.2536, 0.6002 and 0.4263. Obviously, for each group, there is a notable positive correlation between productivity and GDP per square kilometer. However, the correlation is higher for the middle 200 and the bottom 150 cities. With further clustering analysis of the GDP per capita and productivities, the 500 sample cities can be classified into four different clusters (see Figure 3.13). Cluster I includes 141 cities with low GDP per square kilometer and high productivities. Most of these cities are in developed countries in Europe and North America. Cluster II includes 53 cities with high GDP per square kilometer and productivities, mostly in developed countries in Europe and North America, for example, Toronto, Vancouver, Mexico City, Saltillo, San Juan. Cluster III includes four cities with very high GDP per square kilometer and high productivity, namely, Geneva, Macao, New York and Victoria (Canada). Cluster IV includes 302 cities with very low GDP per square kilometer and productivities.

Economic Clustering Facilitates Technological Innovation

Economic clustering could provide enterprises with a better innovation environment to facilitate the transfer and proliferation of knowledge and technologies, to reduce the cost of innovation, and to improve the critical innovation ability of the cities. Through regression analysis of logarithmized GDP per square kilometer of the 500 sample cities on

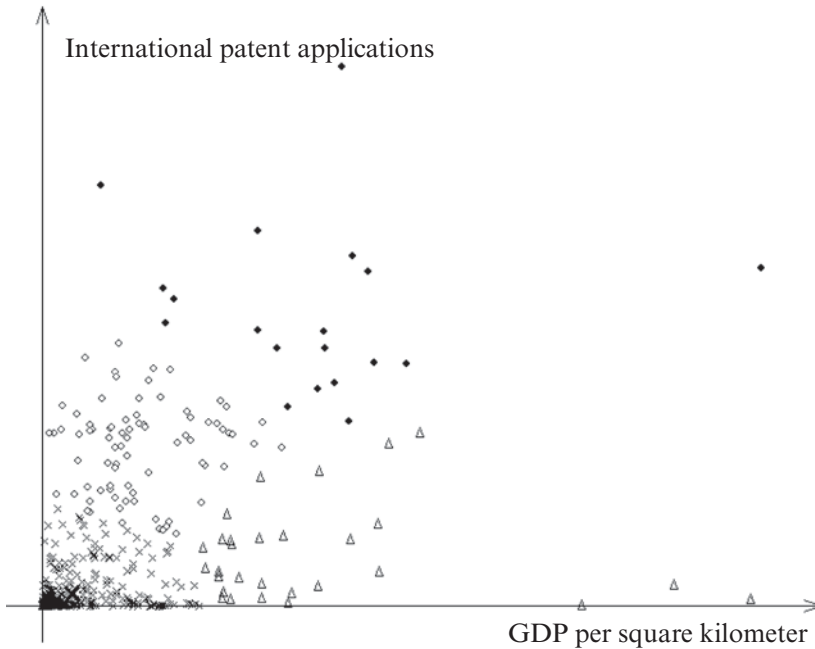


Note: \diamond indicate cluster I; \blacklozenge indicate cluster II; \times indicate cluster III; \triangle indicate cluster IV.

Figure 3.13 Clustering analysis of the 500 sample cities by GDP per square kilometer and productivity

logarithmized patent numbers, we obtained the regression coefficient of 0.9439 and the goodness of fit of 0.6291. Obviously, there is a distinct positive correlation between the two. We conducted further regression analysis of the logarithmized patent numbers on the logarithmized DGP per square kilometer of the top 150, middle 200 and bottom 150 cities, and obtained their regression coefficients: 0.1870, 0.3974 and 0.3233, and goodness of fit of 0.1759, 0.4773 and 0.2888. Obviously, for each group, there is a notable positive correlation between productivity and GDP per square kilometer. However, the correlation is higher for the middle 200 and the bottom 150 cities.

With further clustering analysis of GDP per square kilometer and patent numbers, the 500 sample cities can be classified into four different clusters (see Figure 3.14). Cluster I includes 18 cities with very high GDP per square kilometer and patent numbers. They are London, Paris, Basel, Stuttgart, Stockholm, Tokyo, Osaka, Nagoya, Kawasaki, Yokohama, Seoul, Washington, DC, New York, Chicago, Boston, San Francisco, San Jose, San Diego and Wilmington. Cluster II includes 97 cities with high GDP per square kilometer and patent numbers, including Helsinki, Copenhagen, Madrid, Barcelona, Moscow, St Petersburg, Beijing, Shanghai and Shenzhen. Cluster III includes 372 cities with very low GDP per square kilometer and patent numbers, mostly warring cities in Asia and Europe and less developed cities in Africa, for example, Lome, Freetown, Abidjan, Accra, Lagos, Douala, Yaounde, Kinshasa and Brazzaville. Cluster IV includes 29 cities with high GDP per square kilometer and low patent numbers, including Glasgow, Manchester, Bristol, Nottingham, Southampton, Lyon, Lille, Nice and Bordeaux.



Note: \diamond indicate cluster I; \blacklozenge indicate cluster II; \times indicate cluster III; \triangle indicate cluster IV.

Figure 3.14 Clustering analysis of the 500 sample cities by GDP per square kilometer and patent number

The above analysis indicates that economic clustering plays a critical role in the technological innovation of a city.

Fast Economic Growth Is Not Driven Entirely by Innovation

In the long run, technological innovation is undoubtedly the source and momentum of economic growth. Therefore, cities with better ability to innovate are expected to have higher economic growth. However, through regression analysis of the economic growth rates of the 500 sample cities on logarithmized patent numbers, we obtained the regression coefficient of -0.2399 and the goodness of fit of 0.3919 . Obviously, there is a negative correlation between the two (see Figure 3.15). The data indicates that, while some cities, for example, Shenzhen and Bangalore have a strong ability to innovate and fast economic growth, most leading cities, in terms of patent numbers, particularly many Japanese cities, do not have fast economic growth. We conducted further regression analysis of the logarithmized GDP growth rates on the logarithmized patent numbers of the top 150 and bottom 350 cities, and obtained their regression coefficients: 0.1490 and -0.3289 , and goodness of fit of 0.1365 and 0.4792 . For the top 150 cities, there is a weak positive correlation between economic growth and innovation. However, for the bottom 350 there is a distinct negative correlation. In other words, cities with weaker ability of technological innovation have faster economic growth, and vice versa. Other than the

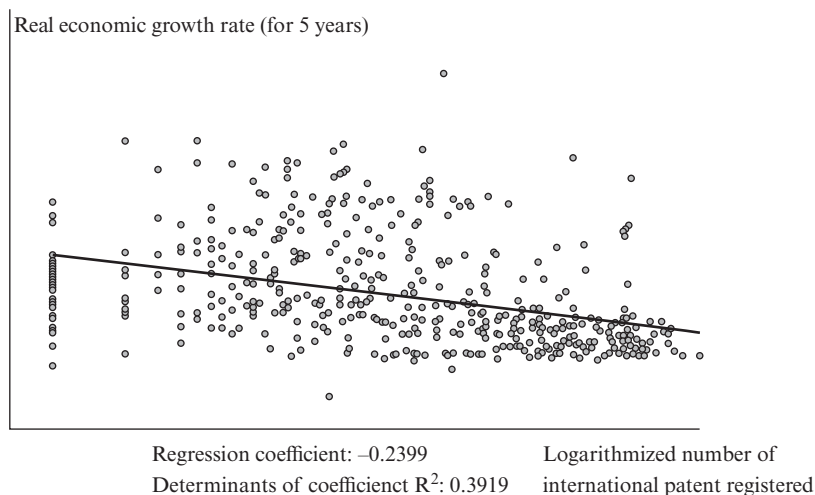


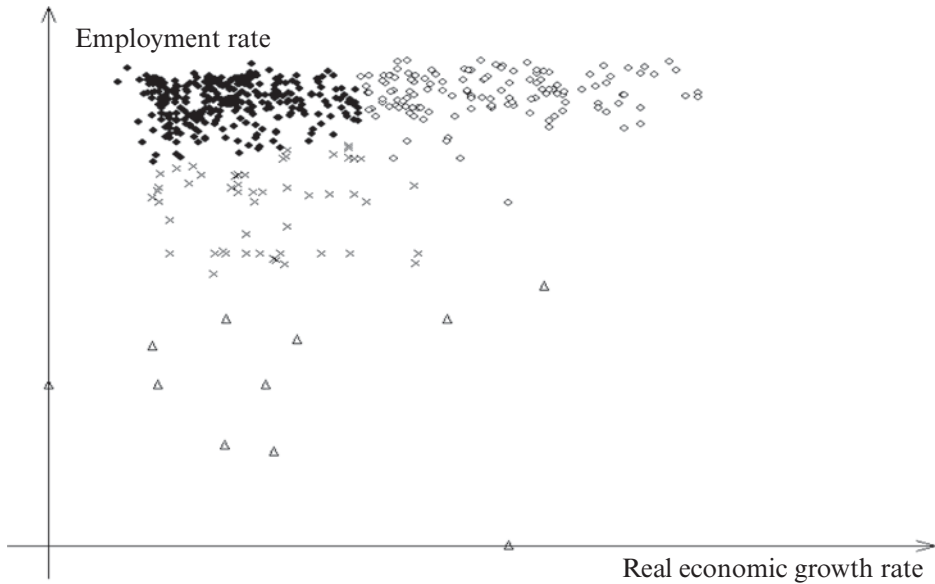
Figure 3.15 The regression correlation between innovation and economic growth of cities

different development stages, it also indicates that, at least in the short term, not all high growth rates are driven by innovation.

Cities with Lower Growth Rates Do Not Necessarily Have Lower Employment Rates

In general, for any given city, economic growth can create additional job opportunities and improve the employment rate. In other words, the employment rate of a city is positively correlated with its GDP growth. However, through regression analysis of the employment rates of the 500 sample cities for the 2001–05 time frame on their GDP growth rates, we obtained the regression coefficient of -0.0930 and goodness of fit of 0.1312 , indicating a weak correlation. We conducted further regression analysis of the employment rates on GDP growth rates of the top 150 and bottom 350 cities for the 2001–05 time frame, and obtained their regression coefficients: 0.0410 and -0.0203 , and goodness of fit of 0.0977 and 0.0254 . For the top 150 cities there is a weak positive correlation between GDP growth and the employment rate. However, for the bottom 350 there is a weak negative correlation.

With further clustering analysis of employment rates and GDP growth rates, the 500 sample cities can be classified into four different clusters (see Figure 3.16). Cluster I includes 135 cities with very high growth rates and employment rates. Most of these cities are in emerging countries undergoing transformation and industrialization, for example, Minsk, Kyiv, Moscow, Beijing, Tianjin, Shenyang, Dalian, Shanghai, Nanjing, Yangzhou, Delhi, Mumbai, Kolkata, Mexico City, Monterrey and Guadalajara. Cluster II includes 303 cities with low growth rates and high employment rates. Most of these cities are in developed countries in Europe, North America, Asia and Oceania, for example, London, Dublin, Amsterdam, Helsinki, Copenhagen, Rome, Milan, Turin, Hong Kong, Taipei, Kaohsiung City, Tokyo, Osaka, Nagoya, New York, Los Angeles, Chicago, Boston, Philadelphia, Seattle, Dallas, Huston and Phoenix. Cluster III includes 51 cities with low



Note: \diamond indicate cluster I; \blacklozenge indicate cluster II; \times indicate cluster III; \triangle indicate cluster IV.

Figure 3.16 Clustering analysis of the 500 sample cities by economic growth rate and employment rate

growth rates and employment rates. Some of them are located in developed countries in Europe and North America, and others in less developed Asian and African countries, for example, Berlin, Dresden, Dortmund, Hannover, Lomé, Freetown, Accra, Lagos, Douala and Yaounde. Cluster IV only has a relatively small number of cities – 11 in total. With very low growth rates and employment rates, these are mostly warring cities in Asia and Europe and less developed cities in Africa, for example, Sarajevo, Groznyj, Sanna, Port-au-Prince, Nairobi, Djibouti, Kampala, Luanda, Harare, Kinshasa and Brazzaville. The analysis shows that, in general, economic growth is positively correlated to employment rate. In other words, the higher the growth rate is, the higher the employment rate, or vice versa. However, it is not always the same for cities in different development stages. For cities with lower levels of development, it would be impossible to maintain a high employment rate without fast economic growth. For those with higher level of development, moderate economic growth should ensure high employment rates.

Table 3.4 Results of regression analysis on the comprehensive competitiveness, GDP per capita and specific competitiveness items: with comprehensive competitiveness and GDP per capita being the dependent variables

Independent variable	Competitiveness			GDP per capita		
	Regression coefficient	R ²	Correlation coefficient	Regression coefficient	R ²	Correlation coefficient
Z1.1.1 Social Responsibility	0.213	0.389	0.389	0.305	0.367	0.367
Z1.1.2 Entrepreneurship	0.345	0.574	0.574	0.489	0.535	0.535
Z1.1 Corporate Culture	0.38	0.562	0.562	0.54	0.526	0.526
Z1.2.1 Shareholding Proportion of Largest Participant	0.296	0.45	0.450	0.564	0.564	0.564
Z1.2.2 Stock Ownership Incentive	0.426	0.604	0.603	0.751	0.7	0.700
Z1.2 Corporate System	0.469	0.601	0.600	0.857	0.722	0.722
Z1.3.1 External Supervision	0.329	0.608	0.608	0.601	0.733	0.733
Z1.3.2 Financial Management	0.373	0.554	0.554	0.675	0.66	0.660
Z1.3.3 Development Strategy	0.34	0.559	0.559	0.556	0.603	0.603
Z1.3 Enterprise Management	0.432	0.682	0.682	0.762	0.792	0.791
Z1.4.1 The R&D/Revenue Ratio	0.199	0.221	0.221	0.359	0.262	0.262
Z1.4.2 Technical Level in Production Manufacturing	0.322	0.531	0.531	0.518	0.563	0.564
Z1.4.3 Branch Distribution	0.378	0.627	0.627	0.616	0.673	0.673
Z1.4 Enterprise Operation	0.488	0.608	0.608	0.803	0.659	0.659
Z1.5.1 Popularity of Enterprise	0.221	0.428	0.428	0.315	0.402	0.402
Z1.5.2 Popularity of Products	0.289	0.563	0.564	0.432	0.555	0.555
Z1.5 Brand	0.338	0.572	0.572	0.496	0.552	0.552
Z1.6.1 Return on Equity	0.048	0.082	0.082	-0.018	0.02	-0.020
Z1.6.2 Profit Growth Rate	-0.036	0.062	-0.062	-0.138	0.155	-0.155

Table 3.4 (continued)

Independent variable	Competitiveness			GDP per capita		
	Regression coefficient	R ²	Correlation coefficient	Regression coefficient	R ²	Correlation coefficient
Z1.6 Enterprise Performance	0.01	0.013	0.013	-0.127	0.111	-0.111
Z1 Enterprise Competitiveness	0.545	0.682	0.682	0.842	0.695	0.695
Z2.1.1 Percentage of the Service Industry	0.548	0.534	0.534	0.969	0.623	0.623
Z2.1.2 Number of Manufacturing Multinational Corporation Headquarters	0.586	0.61	0.610	0.488	0.335	0.335
Z2.1 Manufacturing Development	0.753	0.696	0.696	0.995	0.606	0.606
Z2.2.1 Percentage of Producer Service Industry	0.359	0.377	0.377	0.55	0.38	0.380
Z2.2.2 Number of Multinational Wholesale and Retail Corporations	0.502	0.526	0.526	0.486	0.336	0.335
Z2.2.3 Number of Multinational Commerce Service Corporations	0.608	0.691	0.691	0.355	0.266	0.266
Z2.2.4 Number of Multinational Advertising & Media Corporations	0.422	0.574	0.574	0.144	0.129	0.129
Z2.2 Service Industry Development	0.64	0.721	0.721	0.469	0.348	0.348
Z2.3.1 Percentage of Financial Industry	0.434	0.561	0.561	0.405	0.345	0.345
Z2.3.2 Multinational Financial Corporation Headquarters Distribution	0.489	0.584	0.584	0.375	0.295	0.295

Table 3.4 (continued)

Independent variable	Competitiveness			GDP per capita		
	Regression coefficient	R ²	Correlation coefficient	Regression coefficient	R ²	Correlation coefficient
Z2.3.3 Multinational Financial Corporation Branch Headquarters Distribution	0.517	0.593	0.593	0.157	0.118	0.118
Z2.3 Financial Sector Development	0.582	0.688	0.688	0.384	0.299	0.299
Z2.4.1 Number of Multinational Software Service Corporation Headquarters	0.416	0.43	0.429	0.306	0.208	0.208
Z2.4.2 Number of Multinational High-Tech Corporation Headquarters	0.519	0.544	0.544	0.372	0.257	0.257
Z2.4.3 Industry Driving Force	0.416	0.669	0.669	0.73	0.774	0.774
Z2.4 The High- Tech Industry Development	0.819	0.754	0.754	1.023	0.621	0.622
Z2 Industry Structure	0.836	0.823	0.823	0.785	0.509	0.509
Z3.1.1 Average Life Expectancy at Birth	0.368	0.38	0.379	0.84	0.571	0.571
Z3.1.2 Infant Mortality Rate	0.349	0.356	0.356	0.892	0.601	0.601
Z3.1 Health	0.348	0.381	0.381	0.87	0.627	0.627
Z3.2.1 Adult Literacy Rate	0.386	0.313	0.313	1.101	0.589	0.589
Z3.2.2 Proportion of Persons Holding Bachelor Degree or Higher	0.443	0.505	0.505	0.832	0.624	0.625
Z3.2 Literacy Quality	0.502	0.52	0.520	1.014	0.692	0.692
Z3.3.1 Number of Labor Force	0.048	0.048	0.048	-0.664	0.438	-0.437

Table 3.4 (continued)

Independent variable	Competitiveness			GDP per capita		
	Regression coefficient	R ²	Correlation coefficient	Regression coefficient	R ²	Correlation coefficient
Z3.3.2 Proportion of Labor Force	0.133	0.11	0.110	0.245	0.133	0.133
Z3.3 Status of the Labor Market	0.101	0.096	0.096	-0.513	0.322	-0.322
Z3.4.1 Number of Managers Per 1000 Inhabitants	0.431	0.418	0.418	0.758	0.484	0.484
Z3.4.2 Employment in High-Tech Services Per 1000 Inhabitants	0.374	0.384	0.384	0.694	0.469	0.469
Z3.4 Status of Talent	0.433	0.501	0.501	0.783	0.596	0.596
Z3.5.1 Number of Colleges and Universities	0.351	0.339	0.339	-0.054	0.034	-0.034
Z3.5.2 Famous University Distribution	0.616	0.65	0.650	0.446	0.31	0.310
Z3.5 Education Development	0.614	0.568	0.568	0.266	0.162	0.162
Z3.6.1 Employees' Earning	-0.538	0.701	-0.700	-1.02	0.876	-0.876
Z3.6.2 Living Cost	-0.288	0.297	-0.297	-0.222	0.151	-0.151
Z3.6 Cost of Labor Force	-0.738	0.726	-0.726	-1.191	0.772	-0.772
Z3 Human Resource	0.611	0.547	0.547	0.695	0.41	0.410
Z4.1.1 Land Area Per Capita	-0.238	0.188	-0.189	-0.149	0.078	-0.078
Z4.1.2 Freshwater Per Capita	-0.177	0.198	-0.198	-0.443	0.326	-0.326
Z4.1.3 Status of Power Supply	0.333	0.572	0.572	0.78	0.883	0.883
Z4.1.4 Water Price	-0.286	0.331	-0.331	-0.535	0.408	-0.408
Z4.1.5 Electricity Price	-0.298	0.294	-0.294	-0.69	0.447	-0.447
Z4.1.6 Office Rental	-0.435	0.42	-0.420	-0.152	0.097	-0.097
Z4.1 Basic Elements	-0.311	0.343	-0.343	-0.31	0.225	-0.225
Z4.2.1 Capital Market	0.946	0.441	0.441	0.427	0.131	0.131
Z4.2.2 Getting Credit	0.359	0.542	0.542	0.758	0.754	0.754

Table 3.4 (continued)

Independent variable	Competitiveness			GDP per capita		
	Regression coefficient	R ²	Correlation coefficient	Regression coefficient	R ²	Correlation coefficient
Z4.2.3 Effective Exchange Rate	-0.071	0.063	-0.063	-0.18	0.106	-0.106
Z4.2.4 Difference of Deposit and Loan	0.355	0.242	0.242	0.824	0.369	0.369
Z4.2 Financial Market	0.625	0.547	0.547	1.135	0.655	0.655
Z4.3.1 Number of International Patent Applications	0.82	0.776	0.776	0.903	0.564	0.563
Z4.3.2 Number of Papers Published in International Journals	0.472	0.585	0.585	0.411	0.336	0.336
Z4.3.3 Number of Famous Laboratories and Research Centers	0.501	0.545	0.545	0.42	0.301	0.301
Z4.3.4 National Technical Infrastructure	0.417	0.589	0.589	0.943	0.878	0.878
Z4.3 Scientific and Technological Ability for Innovation	0.702	0.807	0.807	0.888	0.672	0.672
Z4.4.1 Urban Population	-0.002	0.002	-0.002	-0.731	0.519	-0.519
Z4.4.2 Urban Income Per Capita	0.457	0.723	0.722	0.881	0.918	0.918
Z4.4.3 Regional GDP Per Capita	0.515	0.626	0.626	0.955	0.764	0.764
Z4.4.4 Regional Population	0.232	0.235	0.236	-0.069	0.046	-0.046
Z4.4 Market Scale	0.801	0.782	0.781	0.998	0.642	0.642
Z4 Hard Environment	0.793	0.766	0.765	1.13	0.719	0.719
Z5.1.1 Ratio of Local Revenue to the National Revenue	0.058	0.061	0.061	0.008	0.006	0.006

Table 3.4 (continued)

Independent variable	Competitiveness			GDP per capita		
	Regression coefficient	R ²	Correlation coefficient	Regression coefficient	R ²	Correlation coefficient
Z5.1.1 Ratio of Local Revenue to the National Revenue	0.058	0.061	0.061	0.008	0.006	0.006
Z5.1.2 Index of Economic Liberalization	0.433	0.578	0.577	0.932	0.82	0.820
Z5.1.3 Protecting Investors	0.347	0.375	0.375	0.732	0.522	0.522
Z5.1 Market System	0.464	0.417	0.417	0.921	0.545	0.545
Z5.2.1 Starting a Business	0.395	0.549	0.549	0.836	0.765	0.764
Z5.2.2 Dealing with Licenses	0.501	0.466	0.466	1.142	0.7	0.700
Z5.2.3 Closing a Business	0.102	0.095	0.095	0.149	0.092	0.092
Z5.2 Market Regulation	0.434	0.56	0.560	0.922	0.784	0.784
Z5.3.1 Routine Management	0.52	0.705	0.705	0.686	0.613	0.613
Z5.3.2 Emergency Management	0.364	0.576	0.576	0.646	0.673	0.673
Z5.3 Social Management	0.449	0.701	0.700	0.677	0.696	0.696
Z5.4.1 Administration Efficiency	0.473	0.497	0.497	1.019	0.706	0.706
Z5.4.2 Public Satisfaction	0.267	0.29	0.290	0.591	0.423	0.423
Z5.4 Public Service	0.473	0.457	0.457	1.027	0.655	0.655
Z5.5.1 Development Experience	0.406	0.595	0.595	0.475	0.459	0.459
Z5.5.2 Development Strategy	0.425	0.572	0.572	0.528	0.468	0.468
Z5.5 Strategy and Experience	0.436	0.639	0.639	0.524	0.507	0.507
Z5.6.1 Payment	0.188	0.165	0.164	0.556	0.32	0.319
Z5.6.2 Time	0.551	0.43	0.429	1.101	0.565	0.565
Z5.6.3 Total Tax Rate	0.482	0.341	0.341	1.125	0.525	0.525
Z5.6.4 Corruption Cost	0.348	0.506	0.505	0.76	0.729	0.728

Table 3.4 (continued)

Independent variable	Competitiveness			GDP per capita		
	Regression coefficient	R ²	Correlation coefficient	Regression coefficient	R ²	Correlation coefficient
Z5.6.5 Weighted Average Tariff Rate	0.539	0.478	0.478	1.313	0.768	0.768
Z5.6 Tax Burden	0.624	0.531	0.531	1.44	0.808	0.808
Z5 Soft Environment	0.602	0.731	0.731	1.069	0.855	0.855
Z6.1.1 Natural Landscape	0.181	0.197	0.197	0.305	0.219	0.219
Z6.1.2 Climate	-0.157	0.2	-0.200	-0.304	0.255	-0.255
Z6.1 Natural Environment	-0.068	0.08	-0.080	-0.15	0.118	-0.118
Z6.2.1 Sulphur Dioxide Emissions	0.322	0.399	0.399	0.71	0.579	0.579
Z6.2.2 Wastewater Treatment Rate	0.424	0.493	0.493	0.856	0.657	0.657
Z6.2.3 Particles	0.422	0.447	0.447	1.04	0.726	0.726
Z6.2 Environment Quality	0.435	0.523	0.523	0.969	0.768	0.768
Z6.3.1 Shopping	0.155	0.167	0.167	0.22	0.157	0.157
Z6.3.2 Price Index	0.246	0.215	0.214	0.785	0.451	0.451
Z6.3 Shopping Environment	0.294	0.251	0.251	0.73	0.41	0.411
Z6.4.1 Dining	0.026	0.029	0.029	0.025	0.019	0.019
Z6.4.2 International Hotels	0.694	0.667	0.667	0.817	0.518	0.518
Z6.4.3 The Price of Restaurant	-0.553	0.607	-0.607	-0.642	0.464	-0.464
Z6.4 Dining & Restaurant	-0.001	0.001	0.000	0.005	0.003	0.003
Z6.5.1 Per Capita Dwelling	0.388	0.422	0.422	0.706	0.507	0.507
Z6.5.2 Housing Price to Income Ratio	-0.022	0.024	-0.025	0.427	0.308	0.307
Z6.5.3 Lodging	0.061	0.059	0.059	0.266	0.17	0.170
Z6.5 Housing	0.25	0.228	0.227	0.838	0.503	0.503
Z6.6.1 Entertainment	0.075	0.072	0.072	0.064	0.04	0.040
Z6.6.2 World Heritage	0.162	0.146	0.146	0.133	0.079	0.079
Z6.6 Culture and Entertainment	0.202	0.161	0.161	0.168	0.088	0.089
Z6.7.1 Crime Rate	-0.195	0.241	-0.241	-0.405	0.329	-0.329

Table 3.4 (continued)

Independent variable	Competitiveness			GDP per capita		
	Regression coefficient	R ²	Correlation coefficient	Regression coefficient	R ²	Correlation coefficient
Z6.7.2 Cost From Terrorism	-0.047	0.058	-0.058	-0.04	0.032	-0.033
Z6.7 Social Security	-0.242	0.259	-0.259	-0.469	0.331	-0.331
Z6 Living Environment	0.339	0.289	0.288	0.821	0.46	0.460
Z7.1.1 Nature Location	0.091	0.181	0.182	0.051	0.067	0.067
Z7.1.2 Society Location	0.225	0.425	0.425	0.418	0.522	0.522
Z7.1 Location Conditions	0.317	0.436	0.436	0.464	0.42	0.420
Z7.2.1 Number of Railway Lines	0.148	0.204	0.203	0.175	0.158	0.158
Z7.2.2 Number of Highway Lines	0.17	0.251	0.251	0.189	0.183	0.183
Z7.2 Land Transportation	0.239	0.274	0.274	0.274	0.207	0.207
Z7.3.1 Container Throughput	0.177	0.157	0.158	-0.043	0.025	-0.025
Z7.3.2 Berth Draft	0.051	0.081	0.082	0.043	0.046	0.046
Z7.3 Water Transportation	0.097	0.124	0.124	0.028	0.024	0.024
Z7.4.1 Aircraft Movement	0.584	0.63	0.630	0.642	0.456	0.456
Z7.4.2 Passenger Throughput	0.64	0.685	0.685	0.44	0.31	0.310
Z7.4.3 Cargo Handled	0.538	0.405	0.405	0.53	0.263	0.263
Z7.4 Air Transportation	0.791	0.694	0.694	0.714	0.413	0.413
Z7.5.1 Virtual Connectivity of Enterprise Website	0.481	0.492	0.492	0.254	0.171	0.171
Z7.5.2 Virtual Connectivity of Official City Website	0.688	0.738	0.738	0.666	0.471	0.471
Z7.5 Information Connectivity	0.785	0.734	0.734	0.621	0.383	0.383
Z7.6.1 Percentage of Foreign-Born citizens	0.546	0.504	0.504	0.877	0.533	0.534

Table 3.4 (continued)

Independent variable	Competitiveness			GDP per capita		
	Regression coefficient	R ²	Correlation coefficient	Regression coefficient	R ²	Correlation coefficient
Z7.6.2 Percentage of Foreign Visitors	0.253	0.264	0.265	0.475	0.327	0.327
Z7.6 Residents Connectivity	0.416	0.434	0.434	0.71	0.488	0.488
Z7.7.1 Number of Multinational Corporation Headquarters	0.869	0.679	0.679	0.622	0.32	0.320
Z7.7.2 Number of Multinational Corporation Branches	0.761	0.789	0.789	0.617	0.421	0.421
Z7.7 Enterprises Connectivity	0.867	0.809	0.809	0.68	0.418	0.418
Z7 Global Connectivity	0.776	0.777	0.777	0.826	0.544	0.544

4. The city rankings

There are three sets of results for the analysis that was done in accordance with the methodology that was developed in Chapter 1. The first is the set of Urban Competitiveness Index Rankings for the 500 cities – presented in this chapter (Table 4.1). The second is a set of Global Urban Competitiveness Analysis pages for the 150 cities that is presented in Appendix 2. The third is a large set of pages that presents the results for all 500 cities for the several indices of urban competitiveness. Owing to its considerable length, this latter data-set is being made available to the reader on the following website: www.gucp.org.

Table 4.1 Global Urban Competitiveness Index Rankings (GUCI) (2007/08)

City	Country	Score	Rank
New York	United States	1.000	1
London	United Kingdom	0.944	2
Tokyo	Japan	0.790	3
Paris	France	0.759	4
Washington	United States	0.696	5
Los Angeles	United States	0.669	6
Stockholm	Sweden	0.648	7
Singapore	Singapore	0.646	8
San Francisco	United States	0.642	9
Chicago	United States	0.630	10
Toronto	Canada	0.618	11
Seoul	Korea	0.617	12
Boston	United States	0.597	13
San Diego	United States	0.588	14
Oakland	United States	0.583	15
Helsinki	Finland	0.575	16
Madrid	Spain	0.572	17
Vienna	Austria	0.569	18
Philadelphia	United States	0.565	19
Houston	United States	0.555	20
Zurich	Switzerland	0.553	21
Melbourne	Australia	0.539	22
Montreal	Canada	0.534	23
Buenos Aires	Argentina	0.533	24
Dallas	United States	0.532	25
Hong Kong	China	0.529	26
Dublin	Ireland	0.529	27
Frankfurt	Germany	0.527	28
Milan	Italy	0.526	29

Table 4.1 (continued)

City	Country	Score	Rank
Moscow	Russia	0.525	30
Sydney	Australia	0.520	31
Miami	United States	0.517	32
Tel Aviv	Israel	0.517	33
Minneapolis	United States	0.514	34
Amsterdam	Netherlands	0.513	35
Manchester	United Kingdom	0.510	36
Seattle	United States	0.508	37
Atlanta	United States	0.504	38
Dubai	United Arab Emirates	0.493	39
Hamburg	Germany	0.492	40
Shanghai	China	0.492	41
Oslo	Norway	0.492	42
Stuttgart	Germany	0.492	43
Bristol	United Kingdom	0.492	44
Las Vegas	United States	0.492	45
San Jose	United States	0.489	46
Vancouver	Canada	0.488	47
Edinburgh	United Kingdom	0.487	48
Lyon	France	0.485	49
Baltimore	United States	0.482	50
Auckland	New Zealand	0.478	51
Portland	United States	0.476	52
Austin	United States	0.475	53
Nottingham	United Kingdom	0.472	54
Doha	Qatar	0.472	55
Nagoya	Japan	0.470	56
Yokohama	Japan	0.470	57
Arlington	United States	0.470	58
Denver	United States	0.469	59
Munich	Germany	0.467	60
Calgary	Canada	0.467	61
Glasgow	United Kingdom	0.466	62
Berlin	Germany	0.460	63
Shenzhen	China	0.460	64
Phoenix	United States	0.459	65
Beijing	China	0.458	66
Osaka	Japan	0.457	67
Geneva	Switzerland	0.456	68
Brussels	Belgium	0.455	69
Düsseldorf	Germany	0.454	70
Basel	Switzerland	0.452	71
Charlotte	United States	0.451	72
Cleveland	United States	0.450	73
Mexico City	Mexico	0.448	74
Wellington	New Zealand	0.447	75

Table 4.1 (continued)

City	Country	Score	Rank
Hague	Netherlands	0.441	76
Honolulu	United States	0.440	77
Macao	China	0.436	78
Detroit	United States	0.434	79
Wilmington	United States	0.428	80
Rotterdam	Netherlands	0.428	81
St Louis	United States	0.427	82
Birmingham	United Kingdom	0.424	83
Indianapolis	United States	0.423	84
Leeds	United Kingdom	0.422	85
San Antonio	United States	0.422	86
Raleigh	United States	0.421	87
San Juan	Puerto Rico	0.420	88
Quebec	Canada	0.418	89
Kawasaki	Japan	0.414	90
Sacramento	United States	0.414	91
Copenhagen	Denmark	0.412	92
Southampton	United Kingdom	0.411	93
Victoria	Canada	0.409	94
Columbus	United States	0.407	95
Rome	Italy	0.407	96
Cincinnati	United States	0.407	97
Buffalo	United States	0.405	98
Budapest	Hungary	0.404	99
Ottawa	Canada	0.399	100
Kyoto	Japan	0.399	101
Long Beach	United States	0.398	102
Mannheim	Germany	0.397	103
Athens	Greece	0.396	104
Newcastle	United Kingdom	0.396	105
Chihuahua	Mexico	0.395	106
Al Kuwait	Kuwait	0.395	107
Pittsburgh	United States	0.388	108
Belfast	United Kingdom	0.388	109
Milwaukee	United States	0.387	110
Tampa	United States	0.383	111
Taipei	China	0.381	112
Brisbane	Australia	0.381	113
Mumbai	India	0.380	114
Barcelona	Spain	0.380	115
Mesa	United States	0.377	116
Riyadh	Saudi Arabia	0.376	117
Fukuoka	Japan	0.375	118
Hannover	Germany	0.375	119
Toulouse	France	0.374	120
Palo Alto	United States	0.374	121

Table 4.1 (continued)

City	Country	Score	Rank
Memphis	United States	0.373	122
Cardiff	United Kingdom	0.372	123
Edmonton	Canada	0.370	124
Sakai	Japan	0.368	125
Fort Worth	United States	0.367	126
Omaha	United States	0.366	127
Chiba	Japan	0.365	128
Albuquerque	United States	0.364	129
Guangzhou	China	0.363	130
Strasbourg	France	0.363	131
Plymouth	United Kingdom	0.363	132
Marseille	France	0.360	133
Warsaw	Portland	0.360	134
Kansas City	United States	0.357	135
Istanbul	Turkey	0.355	136
Kobe	Japan	0.352	137
Nashville	United States	0.352	138
Manama	Bahrain	0.352	139
Essen	Germany	0.352	140
Valencia	Spain	0.350	141
Winnipeg	Canada	0.347	142
Monterrey	Mexico	0.345	143
Dresden	Germany	0.344	144
Tucson	United States	0.344	145
Bologna	Italy	0.342	146
Fresno	United States	0.340	147
Hobart	Australia	0.339	148
Dortmund	Germany	0.337	149
Santiago	Chile	0.337	150
Lisbon	Portugal	0.336	151
Hiroshima	Japan	0.335	152
Nice	France	0.335	153
St Petersburg	Russia	0.331	154
Bangkok	Thailand	0.331	155
Halifax	Canada	0.330	156
Chester	United Kingdom	0.329	157
Veracruz	Mexico	0.329	158
Ljubljana	Slovenia	0.329	159
Leon	Mexico	0.328	160
Prague	Czech Republic	0.328	161
Ulsan	Korea	0.323	162
Sheffield	United Kingdom	0.321	163
Aberdeen	United Kingdom	0.320	164
Bordeaux	France	0.318	165
Utrecht	Netherlands	0.316	166
Norwich	United Kingdom	0.314	167

Table 4.1 (continued)

City	Country	Score	Rank
Saltillo	Mexico	0.313	168
Reykjavik	Iceland	0.313	169
Jacksonville	United States	0.310	170
Sapporo	Japan	0.309	171
Christchurch	New Zealand	0.308	172
Perth	Australia	0.307	173
Virginia Beach	United States	0.307	174
Bergen	Norway	0.306	175
Shizuoka	Japan	0.306	176
Lille	France	0.306	177
Queretaro	Mexico	0.305	178
Sendai	Japan	0.305	179
Guadalajara	Mexico	0.304	180
Leipzig	Germany	0.304	181
Hamilton	Canada	0.303	182
Bremen	Germany	0.303	183
Oklahoma City	United States	0.302	184
Regina	Canada	0.302	185
New Orleans	United States	0.301	186
Bratislava	Slovakia	0.301	187
Liverpool	United Kingdom	0.299	188
Tallinn	Estonia	0.297	189
Turin	Italy	0.297	190
Nuremberg	Germany	0.296	191
Toluca	Mexico	0.296	192
Malmö	Sweden	0.295	193
Adelaide	Australia	0.294	194
Ciudad Juárez	Mexico	0.294	195
Bonn	Germany	0.293	196
El Paso	United States	0.292	197
Torreon	Mexico	0.290	198
Chichibu	Japan	0.290	199
Tampico	Mexico	0.289	200
Sao Paulo	Brazil	0.287	201
Santo Domingo	Dominican Republic	0.286	202
Daejeon	Korea	0.285	203
Bern	Switzerland	0.285	204
Tulsa	United States	0.282	205
Bucharest	Romania	0.280	206
Morelia	Mexico	0.280	207
Mainz	Germany	0.278	208
Kuala Lumpur	Malaysia	0.276	209
Zagreb	Croatia	0.276	210
Aguascalientes	Mexico	0.276	211
Cologne	Germany	0.276	212
Delhi	India	0.275	213

Table 4.1 (continued)

City	Country	Score	Rank
Vilnius	Lithuania	0.275	214
Hamamatsu	Japan	0.274	215
Zhongshan	China	0.273	216
Gothenburg	Sweden	0.271	217
Suzhou	China	0.271	218
Canberra	Australia	0.270	219
Merida	Mexico	0.270	220
Incheon	Korea	0.268	221
Hangzhou	China	0.266	222
Tianjin	China	0.265	223
Johannesburg	South Africa	0.265	224
Kanazawa	Japan	0.265	225
Puebla	Mexico	0.262	226
Kaohsiung City	China	0.261	227
Arhus	Denmark	0.261	228
Ankara	Turkey	0.261	229
Nicosia	Cyprus	0.260	230
Dalian	China	0.260	231
Wuxi	China	0.259	232
Okinawa	Japan	0.257	233
Chengdu	China	0.255	234
Beirut	Lebanon	0.255	235
Bangalore	India	0.255	236
Xiamen	China	0.254	237
Saskatoon	Canada	0.254	238
Nanjing	China	0.253	239
San Luis Potosi	Mexico	0.252	240
Montevideo	Uruguay	0.252	241
Busan	Korea	0.250	242
Tijuana	Mexico	0.249	243
Wichita	United States	0.249	244
Lima	Peru	0.247	245
Sofia	Bulgaria	0.247	246
Baotou	China	0.246	247
Jakarta	Indonesia	0.245	248
Changsha	China	0.244	249
Genoa	Italy	0.244	250
Trieste	Italy	0.243	251
Qingdao	China	0.240	252
Dongguan	China	0.240	253
Cuernavaca	Mexico	0.239	254
Manaus	Brazil	0.238	255
Betim	Brazil	0.237	256
Shenyang	China	0.237	257
Rio de Janeiro	Brazil	0.237	258
Kitakyusyu	Japan	0.236	259

Table 4.1 (continued)

City	Country	Score	Rank
Foshan	China	0.236	260
Hamilton	New Zealand	0.233	261
Palermo	Italy	0.232	262
Zhuhai	China	0.229	263
Panama City	Panama	0.226	264
Hefei	China	0.225	265
Ningbo	China	0.224	266
Bogota	Colombia	0.224	267
Chennai	India	0.223	268
Akita	Japan	0.223	269
Minsk	Belarus	0.223	270
Shijiazhuang	China	0.222	271
Yerushalayim	Israel	0.222	272
Naples	Italy	0.220	273
Nanchang	China	0.219	274
Yantai	China	0.219	275
Nassau	Bahamas	0.218	276
Wuhan	China	0.218	277
Zibo	China	0.217	278
Acapulco	Mexico	0.217	279
Cape Town	South Africa	0.216	280
Weihai	China	0.216	281
Belo Horizonte	Brazil	0.214	282
Taiyuan	China	0.213	283
Huhehaote	China	0.213	284
Jinan	China	0.213	285
Cairo	Egypt	0.213	286
Daegu	Korea	0.212	287
Cordoba	Argentina	0.212	288
Wuhu	China	0.209	289
Bandar Seri Begawan	Brunei Darussalam	0.209	290
Fuzhou	China	0.208	291
Chongqing	China	0.207	292
Kingston	Jamaica	0.206	293
Kiev	Ukraine	0.206	294
Gyeongju	Korea	0.206	295
Okayama	Japan	0.206	296
Nantong	China	0.204	297
Takamatsu	Japan	0.204	298
Hsinchu City	China	0.203	299
Krakow	Poland	0.203	300
Changzhou	China	0.202	301
Riga	Latvia	0.202	302
Sao Bernardo do Campo	Brazil	0.202	303
Campinas	Brazil	0.202	304
Caracas	Venezuela	0.201	305

Table 4.1 (continued)

City	Country	Score	Rank
Venice	Italy	0.200	306
Alamaty	Kazakhstan	0.199	307
Brasilia	Brazil	0.199	308
Hyderabad	India	0.198	309
Curitiba	Brazil	0.198	310
Shaoxing	China	0.198	311
Baku	Azerbaijan	0.197	312
Recife	Brazil	0.196	313
Duque de Caxias	Brazil	0.194	314
Harbin	China	0.194	315
Muscat	Oman	0.193	316
Hanoi	Vietnam	0.193	317
Ho Chi Minh City	Vietnam	0.193	318
Alexandria	Egypt	0.192	319
Omsk	Russia	0.191	320
Sao Jose dos Campos	Brazil	0.191	321
Pretoria	South Africa	0.191	322
Manila	Philippines	0.190	323
Keelung	China	0.190	324
Xuzhou	China	0.189	325
Huizhou	China	0.189	326
Novosibirsk	Russia	0.189	327
Changchun	China	0.189	328
Zhengzhou	China	0.188	329
Xi'an	China	0.188	330
Karachi	Pakistan	0.188	331
Tehran	Iran	0.187	332
Calcutta	India	0.186	333
San Salvador	Brazil	0.186	334
Liuzhou	China	0.184	335
Rayong	Thailand	0.183	336
Jiaying	China	0.182	337
Wenzhou	China	0.182	338
Weifang	China	0.182	339
Medellin	Colombia	0.181	340
Kunming	China	0.180	341
Quanzhou	China	0.180	342
Tainan	China	0.178	343
Gaborone	Botswana	0.177	344
Ahmedabad	India	0.177	345
Yangzhou	China	0.176	346
Quito	Ecuador	0.176	347
Colombo	Sri Lanka	0.175	348
Murmansk	Russia	0.175	349
Belgrade	Serbia	0.174	350
Taizhou	China	0.173	351

Table 4.1 (continued)

City	Country	Score	Rank
Algiers	Algeria	0.172	352
Porto Alegre	Portugal	0.171	353
Luanda	Angola	0.171	354
Belgorod	Russia	0.170	355
Havana	Cuba	0.170	356
Amman	Jordan	0.170	357
Tripoli	Libya	0.169	358
Rizhao	China	0.169	359
Guarulhos	Brazil	0.168	360
Lahore	Pakistan	0.168	361
Durban	South Africa	0.167	362
Lipeck	Russia	0.165	363
Porto Alegre	Brazil	0.164	364
Port Louis	Mauritius	0.163	365
Pune	India	0.159	366
Nanning	China	0.157	367
Medan	Indonesia	0.156	368
Guatemala City	Guatemala	0.156	369
Archangelsk	Russia	0.156	370
Bandung	Indonesia	0.156	371
Haikou	China	0.155	372
Samara	Russia	0.154	373
Bhopal	India	0.154	374
Islamabad	Pakistan	0.150	375
Cochi	India	0.149	376
Jekaterinburg	Russia	0.149	377
Labuan	Malaysia	0.148	378
Kemerovo	Russia	0.147	379
Tunis	Tunis	0.147	380
Cel'abinsk	Russia	0.147	381
Taichung	China	0.146	382
Guayaquil	Ecuador	0.145	383
Phnom Penh	Cambodia	0.144	384
Vladivostok	Russia	0.143	385
Yerevan	Armenia	0.141	386
Baghdad	Iraq	0.140	387
Tegucigalpa	Honduras	0.140	388
Kaliningrad	Russia	0.139	389
Krasnojarsk	Russia	0.139	390
Volgograd	Russia	0.138	391
Penang	Malaysia	0.138	392
T'umen	Russia	0.138	393
Izhevsk	Russia	0.137	394
Ufa	Russia	0.137	395
Tashkent	Uzbekistan	0.136	396
Petrozavodsk	Russia	0.136	397

Table 4.1 (continued)

City	Country	Score	Rank
Perm	Russia	0.135	398
Casablanca	Morocco	0.133	399
Damascus	Syria	0.132	400
Jaroslavl	Russia	0.130	401
Kaluga	Russia	0.129	402
Kursk	Russia	0.129	403
Visakhapatnam	India	0.126	404
Ranchi	India	0.125	405
Pimpri-Chichwad	India	0.125	406
Ryazan	Russia	0.124	407
Sanaa	Yemen	0.124	408
Uljanovsk	Russia	0.124	409
Rostov-na-Donu	Russia	0.124	410
Chabarovsk	Russia	0.123	411
Windhoek	Namibia	0.122	412
Accra	Ghana	0.122	413
Kazan	Russia	0.120	414
Barnaul	Russia	0.120	415
Georgetown	Guyana	0.120	416
La Paz	Bolivia	0.120	417
Stavropol	Russia	0.119	418
Or'ol	Russia	0.119	419
Orenburg	Russia	0.118	420
Madurai	India	0.118	421
Machackala	Russia	0.118	422
Dushanbe	Tajikistan	0.117	423
Lucknow	India	0.117	424
Thane	India	0.116	425
Indore	India	0.116	426
Yangon	Myanmar	0.116	427
Srinagar	India	0.116	428
Jaipur	India	0.116	429
Managua	Nicaragua	0.116	430
Dhaka	Bangladesh	0.115	431
Niznij Novgorod	Russia	0.115	432
Saratov	Russia	0.113	433
Krasnojarsk	Russia	0.113	434
Douala	Cameroon	0.112	435
Malacca	Malaysia	0.112	436
Voronez	Russia	0.111	437
Faridabad	India	0.111	438
Ghaziabad	India	0.110	439
Asuncion	Paraguay	0.110	440
Astra Chan	Russia	0.110	441
Penza	Russia	0.110	442
Addis Ababa	Ethiopia	0.110	443

Table 4.1 (continued)

City	Country	Score	Rank
Dakar	Senegal	0.110	444
Surat	India	0.109	445
Vladimir	Russia	0.109	446
Ivanovo	Russia	0.109	447
Tula	Russia	0.109	448
Nagpur	India	0.108	449
Tver	Russia	0.108	450
Dar Es Salaam	Tanzania	0.108	451
Tambov	Russia	0.107	452
Vadodara	India	0.107	453
Lagos	Nigeria	0.107	454
Kalyan	India	0.106	455
Nasik	India	0.106	456
Maputo	Mozambique	0.106	457
Bryansk	Russia	0.105	458
Nairobi	Kenya	0.105	459
Cebu	Philippines	0.104	460
Victoria	Seychelles	0.103	461
Coimbatore	India	0.102	462
Ulan Bator	Mongolia	0.101	463
Kabul	Afghanistan	0.097	464
Smolensk	Russia	0.096	465
Pondicherry	India	0.095	466
Lusaka	Zambia	0.095	467
Kirov	Russia	0.095	468
Ludhiana	India	0.094	469
Mysore	India	0.093	470
Rabat	Morocco	0.092	471
Kanpur	India	0.092	472
Varanasi	India	0.092	473
Trivandrum	India	0.092	474
Agra	India	0.090	475
Sarajevo	Bosnia and Herzegovina	0.089	476
Freetown	Sierra Leone	0.089	477
Amritsar	India	0.088	478
Kampala	Uganda	0.087	479
Patna	India	0.086	480
Allahabad	India	0.083	481
Conakry	Guinea	0.082	482
Yaounde	Cameroon	0.080	483
Meerut	India	0.080	484
Rajkot	India	0.080	485
Brazzaville	Congo	0.078	486
Jabalpur	India	0.077	487
Asansol	India	0.077	488
Haora	India	0.076	489

Table 4.1 (continued)

City	Country	Score	Rank
Abidjan	Côte d'Ivoire	0.075	490
Vijayawada	India	0.073	491
Lomé	Togo	0.067	492
Port Moresby	Papua New Guinea	0.065	493
Kinshasa	Zaire	0.063	494
Blantyre	Malawi	0.054	495
Pyongyang	Korea	0.053	496
Port-au-Prince	Haiti	0.042	497
Groznyj	Russia	0.036	498
Djibouti	Djibouti	0.028	499
Harare	Zimbabwe	0.000	500

5. Which cities are the most competitive in the world?

As has been noted, global urban competitiveness (GUC) is the ability of a city to attract and utilize resources, provide goods and services, create wealth and provide its citizens with the society and economy to which they aspire, more effectively than other cities in the world. Based on this definition, we collected data on nine indices including gross domestic product (GDP), GDP per capita, labor productivity, number of multinational companies, number of internationally recognized patent applications, price advantage, economic growth rate and employment rate. We calculated the Global Urban Competitiveness Index (GUCI) for 500 cities around the world. These 500 cities are distributed in over 130 countries and regions in five continents, and since all nine indices use objective data to measure the general performance and wealth creation of each city, we can gain insights into the development and competitiveness of cities around the world by comparing and analyzing the GUCI of these 500 cities, including the specific components in the indices. The main findings are provided in this chapter.

WORLD CITIES ARE TOP CITIES AND HIGH-TECH CENTERS ARE AMONG THE LEADERS

World cities and global high-tech centers are the most competitive among all cities. New York, London and Tokyo are the top three cities in terms of the GUCI. The top 20 include world cities such as Paris, Washington, Los Angeles, Singapore, Chicago, Toronto, Seoul and Madrid, as well as well-known global high-tech centers, such as Stockholm, San Francisco, Boston, San Diego, Auckland, Helsinki and Vienna. Figure 5.1 and Table 5.1 show the GUCI distribution of the 500 cities.

NORTH AMERICAN CITIES HAVE HIGHER RANKS THAN EUROPEAN AND ASIAN CITIES

Among the top 20 global competitive cities, ten, or one-half, are in North America and seven or 35 per cent in Europe. All together, the North American and European cities account for 90 per cent of the top 20 cities. Only three cities are in Asia. None of the top 20 cities are in Oceania, South America and Africa. Among the top 150 global competitive cities, 59 are in North America, accounting for 84.3 per cent of the sample cities in the region; 52 are in Europe, accounting for 36.4 per cent; 27 are in Asia, accounting for 14.9 per cent; six are in Latin America, accounting for 10 per cent; and six are in Oceania, accounting for 50 per cent. Again, none of the African cities

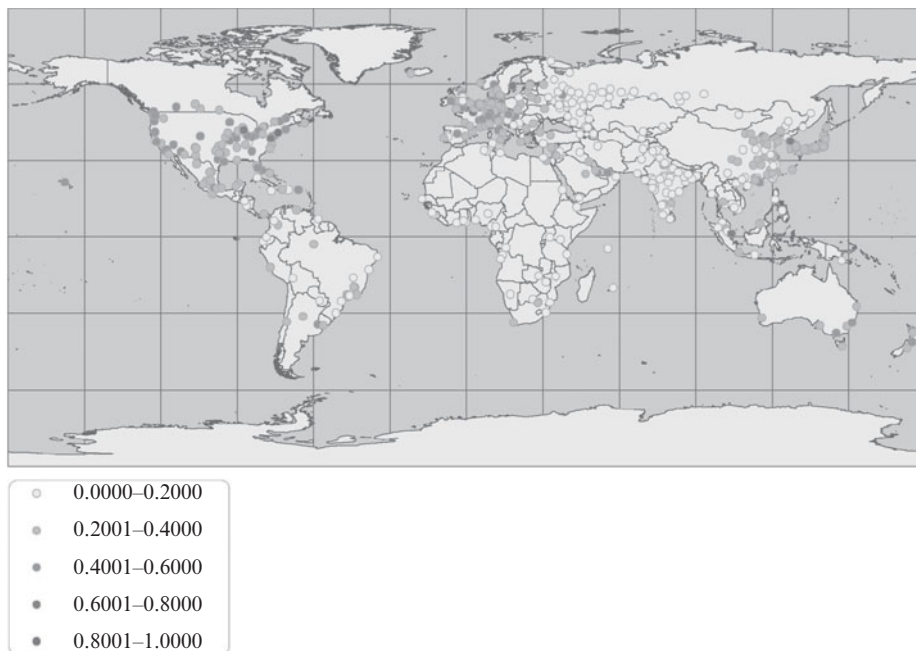


Figure 5.1 Distribution of the 500 cities (unit: index value; 1.0000 is the most competitive)

is on the list of top 150. Figure 5.2 shows the regional distribution of top 150 global competitive cities.

Among the bottom 150 cities, 46 are in Europe, accounting for 32.2 per cent of the sample cities of the region; 62 are in Asia, accounting for 34.3 per cent; 11 are in Latin America, accounting for 19 per cent; one is in Oceania, accounting for 8.3 per cent; and 30 are in Africa, accounting for 83.3 per cent. No North American city is found on this list. A comparison of the cities in different continents indicates that, in general, North American cities have the highest GUCI rankings, followed by European cities. Some of the Asian cities have considerable potential, while cities in Latin America (including the Caribbean region) and Africa have weaker competitiveness, and those in sub-Saharan regions are the least competitive.

WORLD CITIES, HIGH-TECH CENTERS AND NATIONAL CENTERS ARE TOP CITIES IN EACH CONTINENT

Among the top ten cities in North America, nine are in the United States and one Toronto, is Canada. Most of these cities are national/regional political and economic centers, or major high-tech centers in the United States and Canada (see Table 5.2).

Among the Asian and Middle Eastern top ten cities, three are in Japan and two in China (including Hong Kong). Singapore, South Korea, Israel, United Arab Emirates and Qatar each have one city on the list. This indicates that cities of the developed

Table 5.1 The top 20 and bottom 20 cities among the 500 cities in terms of GUCI comprehensive competitiveness

City	Country	Continent	Index	Rank	City	Country	Continent	Index	Rank
New York	US	NAm	1.000	1	Allahabad	India	SAs	0.083	481
London	UK	WEu	0.944	2	Conakry	Guinea	Waf	0.082	482
Tokyo	Japan	EAs	0.790	3	Yaounde	Cameroon	CAf	0.080	483
Paris	France	WEu	0.759	4	Meerut	India	SAs	0.080	484
Washington	US	NAm	0.696	5	Rajkot	India	SAs	0.080	485
Los Angeles	US	NAm	0.669	6	Brazzaville	Congo	CAf	0.078	486
Stockholm	Sweden	NEu	0.648	7	Jabalpur	India	SAs	0.077	487
Singapore	Singapore	SEa	0.646	8	Asansol	India	SAs	0.077	488
San Francisco	US	NAm	0.642	9	Haora	India	SAs	0.076	489
Chicago	US	NAm	0.630	10	Abijan	Côte d'Ivoire	Waf	0.075	490
Toronto	Canada	NAm	0.618	11	Vijayawada	India	SAs	0.073	491
Seoul	South Korea	EAs	0.617	12	Lome	Togo	Waf	0.067	492
Boston	US	NAm	0.597	13	Port Moresby	Papua New Guinea	O	0.065	493
San Diego	US	NAm	0.588	14	Kinshasa	Zaire	CAf	0.063	494
Oakland	US	NAm	0.583	15	Blantyre	Malawi	SAf	0.054	495
Helsinki	Finland	NEu	0.575	16	Pyongyang	North Korea	EAs	0.053	496
Madrid	Spain	SEu	0.572	17	Port-au-Prince	Haiti	C	0.042	497
Vienna	Austria	CEu	0.569	18	Groznyj	Russia	EEu	0.036	498
Philadelphia	US	NAm	0.565	19	Djibouti	Djibouti	EAF	0.028	499
Houston	US	NAm	0.555	20	Harare	Zimbabwe	SAf	0.000	500

Note: NAm = North America, SAm = South America, WEu = Western Europe, NEu = Northern Europe, SEu = Southern Europe, CEu = Central Europe, EEu = Eastern Europe, EAs = East Asia, SAs = South Asia, WEa = West East Asia, WAF = West Africa, SAf = Southern Africa, CAf = Central Africa, O = Oceania, C = Caribbean.

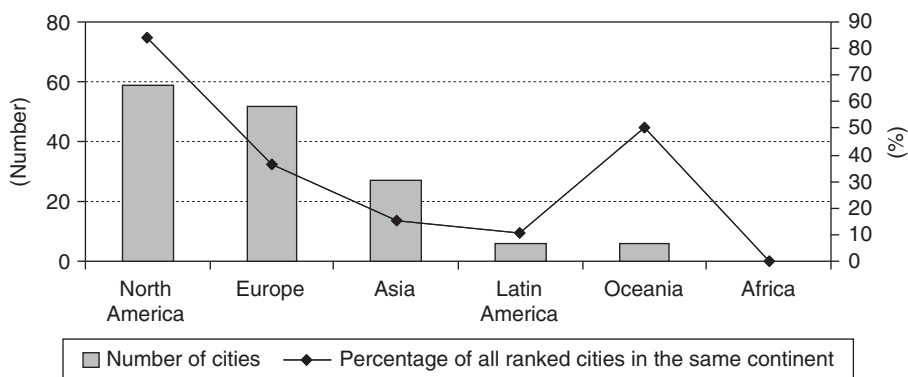


Figure 5.2 Regional distribution of top 150 global competitive cities

nations in Asia and the Middle East, that is, Japan and Israel (four in total), remain the most competitive, followed by those in emerging industrialized countries (three in total) in Asia. In addition, cities in the oil producing countries in West Asia and in China, which is a developing country, are fairly competitive, too.

In Europe, three of the top ten cities are in Western Europe, two in Northern Europe, three in Central Europe, one in Southern Europe and one in South-eastern Europe. None of the cities is in Eastern Europe. Most of these cities are capital cities or economic centers of developed nations (see Table 5.2).

CITIES OF DEVELOPED COUNTRIES ARE MORE COMPETITIVE WHILE CENTRAL CITIES OF NEWLY INDUSTRIALIZING AND TRANSITIONAL COUNTRIES HAVE HIGHER POTENTIAL

A comparison of the distribution of the 500 cities by country shows that ten of the top 20 cities are in the United States, accounting for 17.5 per cent of all US sample cities. Six are in EU, accounting for 8.1 per cent. Canada, Japan, South Korea and Singapore each have one top 20 city, accounting for 7.7 per cent, 4.5 per cent, 14.3 per cent and 100 per cent of their total sample cities respectively (Singapore is a city-state). Among the top 150 cities (see Figure 5.3), 50 are in the United States, accounting for 87.7 per cent of the sample cities of the nation; 13 in Britain, accounting for 72.2 per cent; 11 in Germany, accounting for 64.7 per cent; ten in Japan, accounting for 45.5 per cent; nine in Canada, accounting for 69.2 per cent; five in France, accounting for 62.5 per cent; three in Italy, accounting for 33.3 per cent. Among Brazil, Russia, India and China (BRIC), China has seven cities on the list, accounting for 15.3 per cent of its sample cities; Russia and India have one each, accounting for 2.3 per cent and 2 per cent of their respective sample cities. No Brazilian city is on the top 150 List (see Figure 5.3).

Among the bottom 150 cities, only one is in a developed country, Portugal's Porto Alegre. All the remaining 149 cities are in developing countries and countries in transition. Specifically, 44 are in Russia, accounting for 88 per cent of its sample cities; 36 are in

Table 5.2 Top ten global competitive cities of three major continents

Regional rank	North America			Asia			Europe		
	City	Country	Global rank	City	Country	Global rank	City	Country	Global rank
1	New York	US	1	Tokyo	Japan	3	London	UK	2
2	Washington	US	5	Singapore	Singapore	8	Paris	France	4
3	Los Angeles	US	6	Seoul	South Korea	12	Stockholm	Sweden	7
4	San Francisco	US	9	Hong Kong	China	26	Helsinki	Finland	16
5	Chicago	US	10	Tel Aviv	Israel	33	Madrid	Spain	17
6	Toronto	Canada	11	Dubai	United Arab Emirates	39	Vienna	Austria	18
7	Boston	US	13	Shanghai	China	41	Zurich	Switzerland	21
8	San Diego	US	14	Doha	Qatar	55	Dublin	Ireland	27
9	Oakland	US	15	Nagoya	Japan	56	Frankfurt	Germany	28
10	Philadelphia	US	19	Yokohama	Japan	57	Milan	Italy	29

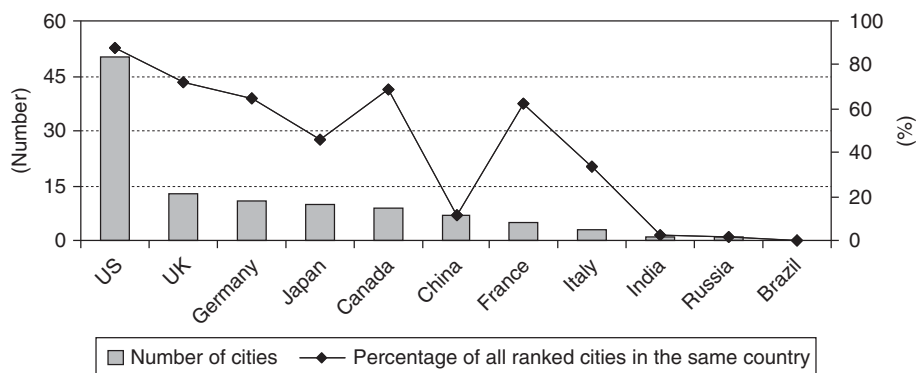


Figure 5.3 The distribution of top 150 cities by country

India, accounting for 83.7 per cent; 5 are in China, accounting for 8.1 per cent; and two are in Brazil, accounting for 13.3 per cent. In general, cities of developed countries are more competitive, while central cities of newly industrializing or transitional countries have higher potential. Cities of the least developed countries are generally not competitive, except that a few have moderate competitiveness.

A FEW COUNTRIES SHOW DISTINCT NATIONAL CHARACTERISTICS IN COMPETITIVENESS WHILE MOST COUNTRIES HAVE SUBSTANTIAL GAPS IN GUCI AMONG THEIR CITIES.

In Britain, the cities generally rank high. London tops the country list, and Liverpool is at the bottom. Between them, there are 186 other global cities distributed evenly. For Brazil, Sao Paulo is at the top and Port Alegre at the bottom of the list, with 163 other cities distributing evenly between them. In general, the ranks of Brazilian cities are low. With the largest number of entries in the top 150, US cities are highly competitive in general. However, those at the bottom of the country list are no more competitive than some cities in developing countries. For example, the bottom two on the US country list, Wichita and Raleigh ranked 205 and 245 respectively on the global list. Between New York, the top ranking city and Raleigh, the lowest ranking, there are 244 other cities distributing evenly between 1 and 245, with an average gap of 4.28. In the case of Russia, the best-performing city Moscow is separated by 120 other cities from the second best, St Petersburg on the global list, and by 468 cities from the worst-performing city Grozny. However, 96 per cent of the Russian entries rank between 300 and 498. Similar cases include India, whose cities are widely separated on the global list, but mostly distributed in different sections evenly. Italy has two entries in the top 100 and one below 300. Most of its cities rank between 100 and 300, in a quasi-normal distribution. Japan is more or less a similar case too, with 5 entries in the top 100 and four below the 250. This indicates that while the competitiveness gap between cities is narrow in some countries, the gap is wide in most countries. In a few countries, the GUCI ranks are in normal distribution.

6. What are the characteristics of global urban competitiveness?

From 2008 into the future, more than 50 percent of the world population will live in cities. While the trend of urbanization is becoming increasingly clear worldwide, the development of small and medium cities remains critical. On the one hand, as people continue to move in, major cities are experiencing reverse urbanization and suburbanization in developed countries. As more and more cities join together owing to urban sprawls, the trend of metropolization is seen in many developed countries. On the other hand, in developing countries, medium and large cities tend to have better infrastructures. In the course of accelerated urbanization, people tend to concentrate in such cities in massive scale. As a result, more and more metropolises with populations of millions or even tens of millions are emerging, and the trend of metropolization is also clear. Nevertheless, the bulk part of the urban growth will occur in small cities and towns.¹ By 2025, more than half of the urban population will still live in small and medium cities with population less than half a million. Figure 6.1 and Table 6.1 show urban population distribution in the world.

THE URBANIZATION PROCESSES AND SIZES OF CITIES HAVE DISTINCT CHARACTERISTICS IN EACH CONTINENT

In Europe, North America, Oceania and other developed regions, more than 70 percent of the population lives in cities. In some of the developing regions, including Latin America and the Caribbean countries, 78 percent of the population lives in cities. This means that, in Europe, North America, Oceania, Latin America and the Caribbean region, the urbanization process has been basically completed. In the developing regions in Asia and Africa, only 40 percent of the population lives in cities. With the increase of income, the urbanization process is accelerating in these regions, particularly in China and India. Among the 20 most populated cities, the majority are political and economic centers in developing countries in Asia, Latin America and Africa. There are a few, however, located in the developed countries. Among the largest 150 cities, 84 are in Asia, accounting for 46.4 percent of the sample cities in the region; 22 are in Latin America, accounting for 37.9 percent; 20 are in Africa, accounting for 56.6 percent; 15 are in Europe, accounting for 10.5 percent; six are in North America, accounting for 8.6 percent; and three are in Oceania, accounting for 25 percent. Figure 6.2 shows the distribution of the 150 most populated cities by region. Among the 150 most populated cities, 79 are in Europe, accounting for 56.2 percent of the sample cities of the region; 35 are in North America, accounting for 50 percent; 19 are in Asia, accounting for 10.5 percent; seven are in Oceania, accounting for 58.3 percent; 5 are in Africa, accounting for 13.9 percent; five are in Latin America, accounting for 8.6 percent. In terms of population,

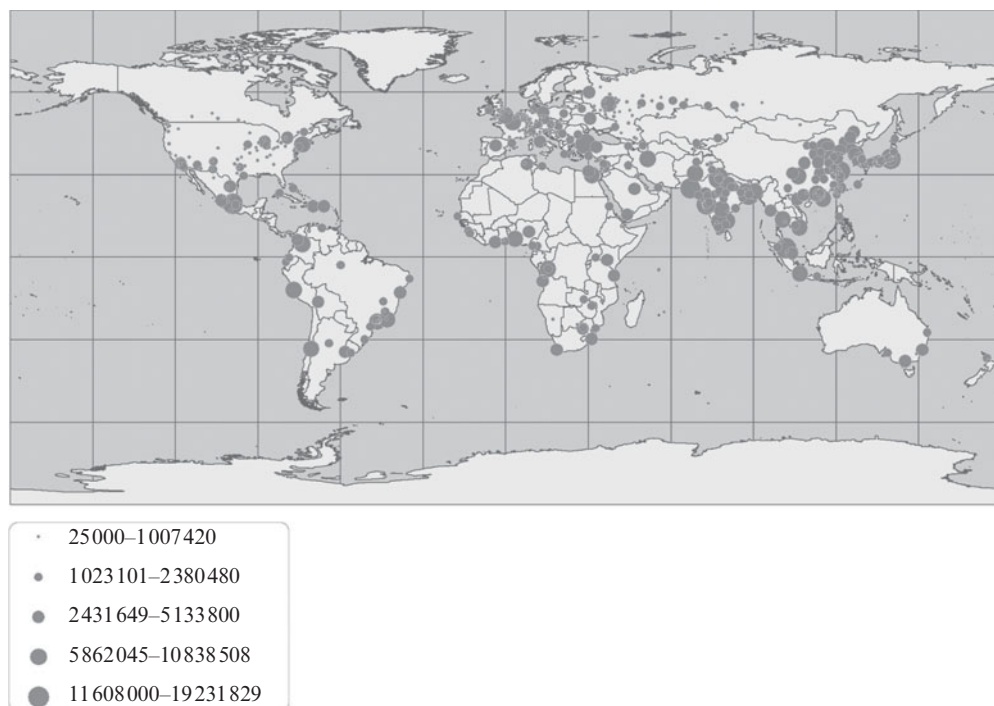


Figure 6.1 The distribution of urban population by city (unit: persons)

Asian, Latin American and African cities generally have larger size, and European and North American are smaller. With the urbanization of densely populated areas in Asia and Africa, an accelerated urbanization process as never seen before is under way worldwide.

MARKET STRUCTURE OF URBAN COMPETITION: OLIGOPOLY

Market share is also an important index of competitiveness. For cities with both internal and external demands, gross domestic product (GDP) would be a good alternative of market share. Through the comparison of their GDPs, we could identify the market features of the competitiveness of individual cities. Wide gaps in GDP exist among the 500 sample cities. Tokyo ranks the first with a GDP of US\$58495 billion, and Grozny, with a GDP of US\$17 million, is at the bottom of the list. The total GDP of the top ten cities amounts to US\$3121.71 billion, accounting for 27.1 percent of the total of all 500 cities, or close to the total GDP of the bottom 380 cities, which is US\$3131.8 billion, or 27.2 percent of the total. The average GDP of the top ten cities is US\$312.17 billion, while that of the bottom 380 cities is merely US\$8.24 billion. Table 6.2 indicates the GDP ranks of the top 20 and bottom 20 cities of the 500 sample cities.

Table 6.1 The top 20 and bottom 20 cities in the 500 cities in terms of population

City	Country	Continent	Population (million persons)	Rank	City	Country	Continent	Population (million persons)	Rank
Mexico City	Mexico	SAm	19.232	1	Geneva	Switzerland	CEu	0.185	481
Shanghai	China	EAs	17.784	2	Regina	Canada	Nam	0.179	482
Mumbai	India	SAs	16.400	3	Malacca	Malaysia	Sea	0.169	483
Beijing	China	EAs	15.380	4	Basel	Switzerland	CEu	0.165	484
Kuala Lumpur	Malaysia	SEa	15.239	5	Windhoek	Namibia	SAF	0.161	485
Calcutta	India	SAs	14.277	6	Mainz	Germany	CEu	0.161	486
Delhi	India	SAs	12.900	7	Hamilton	New Zealand	O	0.156	487
Tokyo	Japan	EAs	12.571	8	Manama	Bahrain	WAs	0.141	488
Istanbul	Turkey	WAs	11.800	9	Brussels	Belgium	WEu	0.139	489
Karachi	Pakistan	SAs	11.608	10	Port Louis	Mauritius	SAF	0.130	490
Sao Paulo	Brazil	SAm	10.839	11	Perth	Australia	O	0.129	491
Moscow	Russia	EEu	10.407	12	Niznij Novgorod	Russia	EEu	0.129	492
Seoul	South Korea	EAs	10.297	13	Bern	Switzerland	CEu	0.127	493
Paris	France	WEu	9.773	14	Norwich	United Kingdom	WEu	0.127	494
Lagos	Nigeria	WAF	9.014	15	Rayong	Thailand	SEa	0.123	495
Lima	Peru	SAm	8.866	16	Chester	United Kingdom	WEu	0.119	496
Jakarta	Indonesia	SEa	8.700	17	Reykjavik	Iceland	NEu	0.114	497
Shenzhen	China	EAs	8.278	18	Labuan	Malaysia	SEa	0.086	498
New York	United States	NAM	8.214	19	Bandar Seri Begawan	Brunei	SEa	0.030	499
Tehran	Iran	WAs	7.798	20	Victoria	Darussalam Seychelles	EAF	0.025	500

Note: NAm = North America, SAm = South America, WEu = Western Europe, NEu = Northern Europe, SEu = Southern Europe, CEu = Central Europe, EEu = Eastern Europe, EAs = East Asia, SAs = South Asia, SEa = South East Asia, WAF = West Africa, SAF = Southern Africa, CAF = Central Africa, O = Oceania, C = Caribbean.

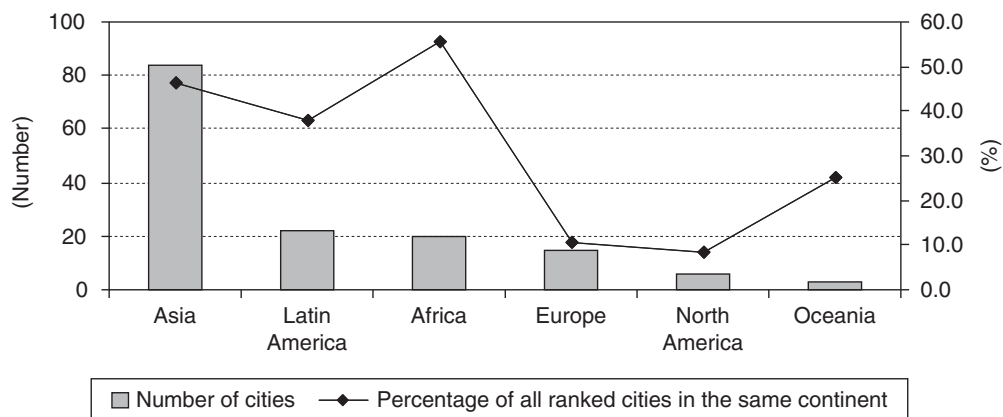


Figure 6.2 The distribution of the 150 most populated cities by region

SUBSTANTIAL GDP GAPS EXIST AMONG CITIES IN EACH CONTINENT

Large GDP figures are found in European, North American, Asian and Oceania cities, which either have high GDP per capita or large population, or both. Relatively speaking, GDP of Latin American and African cities is lower. Among the top (most populous) 150 cities with the highest GDP, 49 are in Asia, accounting for 27.1 percent of the sample cities of the region; 43 are in North America, accounting for 61.4 percent; 37 are in Europe, accounting for 25.9 percent; 12 are in Latin America, accounting for 20.7 percent; seven are in Oceania, accounting for 58 percent; and two are in Africa, accounting for 5.6 percent. Figure 6.3 shows the regional distribution of the top 150 cities. Among the bottom 150 cities, 67 are in Asia, accounting for 37 percent of the sample cities of the region; 48 are in Europe, accounting for 63.9 percent; 23 are in Africa, accounting for 38.9 percent; ten are in Latin America, accounting for 17.2 percent; one is in North America, accounting for 1.4 percent; and one is in Oceania, accounting for 8.3 percent. See Table 6.3 for the GDP ranks of the top ten cities of three continents.

GDP LEVELS VARY SUBSTANTIALLY AMONG CITIES IN EACH COUNTRY

GDP levels vary substantially among cities in each country too. Figure 6.4 shows the difference between the highest and lowest city GDP in major countries.

In terms of absolute figures, Japan has the widest city GDP gap, as wide as US\$569.22 billion; followed by France, US\$518.92 billion; the United States, US\$500.16 billion and Britain, US\$442.43 billion. Brazil has the narrowest gap, which is US\$62.61 billion. In terms of the ratio of the highest to the lowest city GDP, Russia tops the list with 19.7

Table 6.2 The top 20 and bottom 20 cities of the 500 sample cities in terms of GDP

City	Country	Continent	GDP	Rank	City	Country	Continent	GDP	Rank
Tokyo	Japan	EAs	584.95	1	Port Louis	Mauritius	SAF	0.56	481
Paris	France	WEu	525.05	2	Windhoek	Namibia	SAF	0.53	482
New York	US	NAm	502.51	3	Freetown	Sierra Leone	WAF	0.50	483
London	UK	WEu	446.20	4	Maputo	Mozambique	SAF	0.49	484
Mexico City	Mexico	LAm	220.08	5	Allahabad	India	SAs	0.48	485
Los Angeles	US	NAm	180.08	6	Mysore	India	SAs	0.44	486
Hong Kong	China	EAs	179.78	7	Haora	India	SAs	0.43	487
Seoul	South Korea	EAs	176.60	8	Niznij	Russia	EEu	0.42	488
					Novgorod				
Sydney	Australia	O	171.69	9	Nasik	India	SAs	0.42	489
Melbourne	Australia	O	134.76	10	Asansol	India	SAs	0.41	490
Chicago	US	NAm	130.03	11	Djibouti	Djibouti	EAF	0.39	491
Shanghai	China	EAs	110.74	12	Lome	Togo	WAF	0.33	492
Yokohama	Japan	EAs	110.32	13	Labuan	MalaySia	SEA	0.31	493
Singapore	Singapore	SEA	109.31	14	Blantyre	Malawi	SAF	0.31	494
Berlin	Germany	CEu	102.91	15	Georgetown	Guyana	LAm	0.29	495
Toronto	Canada	NAm	102.35	16	Victoria	Seychelles	EAF	0.26	496
Madrid	Spain	SEu	99.18	17	Vijayawada	India	SAs	0.25	497
Houston	US	NAm	98.91	18	Port Moresby	Papua New Guinea	O	0.23	498
Osaka	Japan	EAs	98.78	19	Dushanbe	Tajikistan	CAs	0.20	499
Rome	Italy	SEu	90.52	20	Groznyj	Russia	EEu	0.17	500

Notes: The data for London cover the Greater London Region. Unit: US\$ billions.
 NAm = North America, SAM = South America, WEu = Western Europe, NEu = Northern Europe, SEu = Southern Europe, CEu = Central Europe,
 EEu = Eastern Europe, EAs = East Asia, SAs = South Asia, SEa = South East Asia, WAF = West Africa, SAF = Southern Africa, CAF = Central Africa,
 O = Oceania, C = Caribbean.

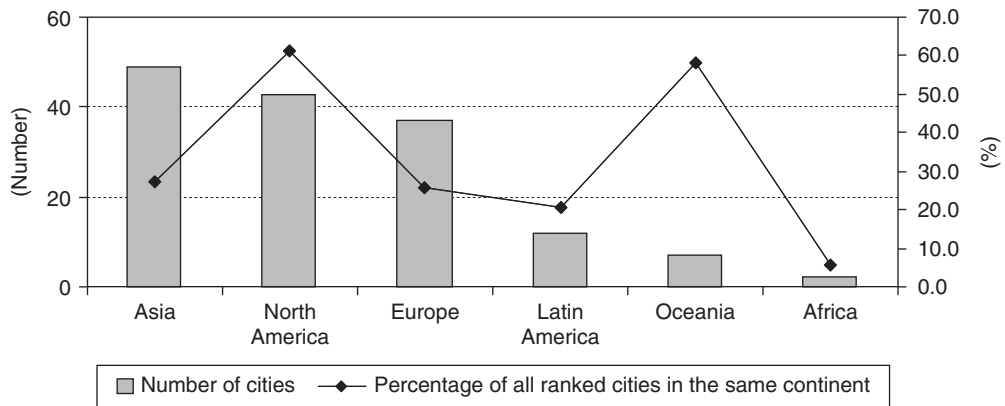


Figure 6.3 The distribution of the top 150 cities by regions

times, followed by the United States, 12.4 times and Britain, 9.7 times. Italy and Canada, with 1.4 times and 1.3 times, are at the bottom of the list. In general, the United States and Britain have the largest difference in city GDP (see Figure 6.5).

GROWTH RATES VARY SUBSTANTIALLY AMONG CITIES AND CHINESE CITIES HAVE THE HIGHEST SPEED

Average annual GDP growth rates of the cities during the 2001–05 period vary substantially, with Baotou's 20.05 percent being the highest and Harare's –7.38 percent being the lowest. The average growth rate of the cities is 5.94 percent with 98 cities reporting growth rates higher than 10 percent, and 13 others reporting negative growth rates. Figure 6.6 and Table 6.4 show the economic growth rates of cities worldwide.

WESTERN EUROPEAN AND NORTH AMERICAN CITIES HAVE MAINTAINED SLOW GROWTH; SOME ASIAN CITIES ARE EMERGING AS NEW GROWTH CENTERS; AND SOME AFRICAN CITIES CONTINUE TO DETERIORATE

Substantial gaps in average GDP growth rates exist among cities in the 2001–05 period. The average growth rate of Asian cities is the highest, 8.4 percent, followed by Latin America, 7.8 percent; Europe, 4.5 percent and Africa, 4.1 percent. At the bottom of the list are North America and Oceania, at 2.7 percent and 2.5 percent respectively. Among the cities with GDP growth rate higher than 10 percent, 72 cities are in Asia, 14 in Latin America, 11 in Europe (mainly in Russia) and one in Africa. None is in North America or Oceania. Among those with GDP growth rate lower than 2 percent, 44 cities are in Europe, 24 in North America, 22 in Asia (mainly in Japan), five in Latin America, five in Oceania and five in Africa. Figure 6.6 shows the average GDP growth rates of cities during the 2001–05 period by continent. Among the cities with negative growth, six are

Table 6.3 GDP ranking of top ten cities in North America, Asia and Europe

Regional Rank	North America			Asia			Europe		
	City	Country	Global rank	City	Country	Global rank	City	Country	Global rank
1	New York	US	3	Tokyo	Japan	1	Paris	France	2
2	Los Angeles	US	6	Hong Kong	China	7	London	UK	4
3	Chicago	US	11	Seoul	South Korea	8	Berlin	Germany	15
4	Toronto	Canada	16	Shanghai	China	12	Madrid	Spain	17
5	Houston	US	18	Yokohama	Japan	13	Rome	Italy	20
6	Philadelphia	US	28	Singapore	Singapore	14	Manchester	UK	24
7	Montreal	Canada	30	Osaka	Japan	19	Moscow	Russia	25
8	San Diego	US	34	Nagoya	Japan	21	Vienna	Austria	26
9	Dallas	US	35	Istanbul	Turkey	22	Hamburg	Germany	31
10	Phoenix	US	38	Beijing	China	23	Leeds	UK	33

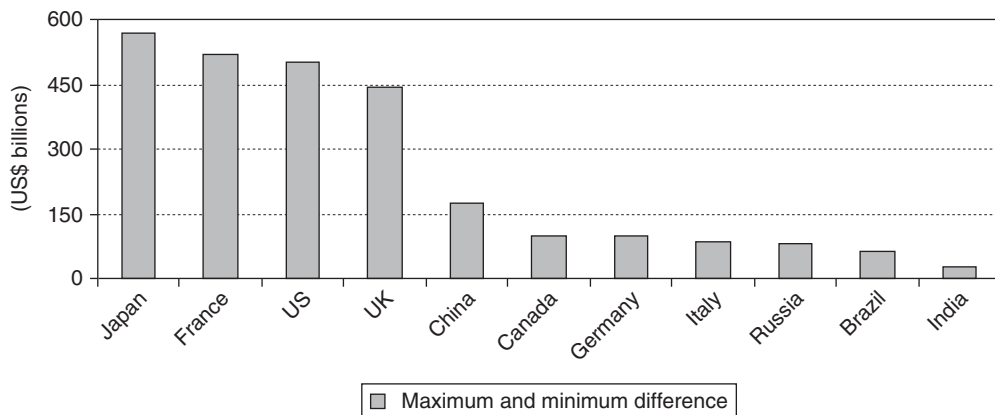


Figure 6.4 The difference between the highest and lowest city GDPs in major countries

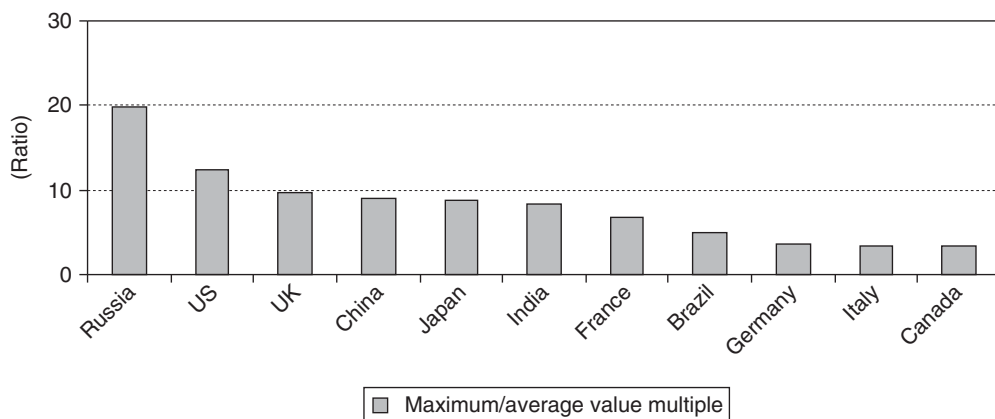


Figure 6.5 The ratios of largest to lowest city GDP in major countries

in Japan. In the sub-Saharan regions, the average growth rate of the cities is as low as 1.82 percent, with seven cities reporting negative growth.

CITIES IN THE CORE REGIONS OF THE CONTINENTS HAVE SLOW GROWTH WHILE THOSE IN THE PERIPHERAL REGIONS HAVE BEEN GROWING FAST

In core regions of Europe, such as Britain and Germany, the average growth rates are as low as 2.65 percent and 1.72 percent respectively. In CIS states, such as Russia and Belarus, it is as high as 8.50 percent. In Asia, it is 0.51 percent in Japan, where six cities have reported negative growth, and up to 11.62 percent and 6.38 in China and India

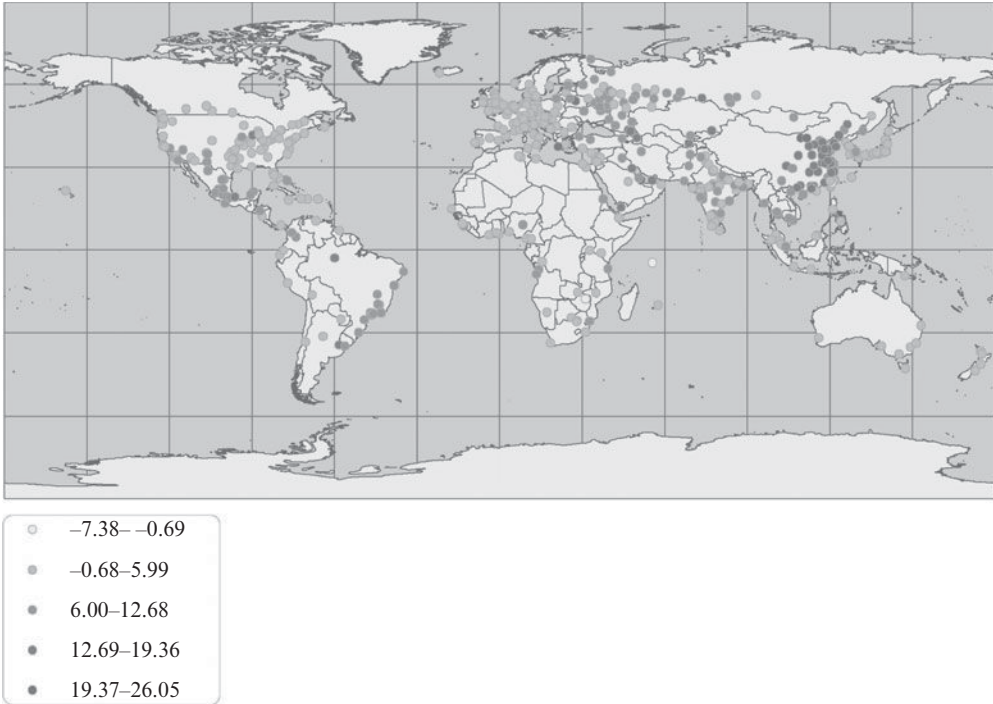


Figure 6.6 Economic growth rates of cities worldwide (unit: percentage increase)

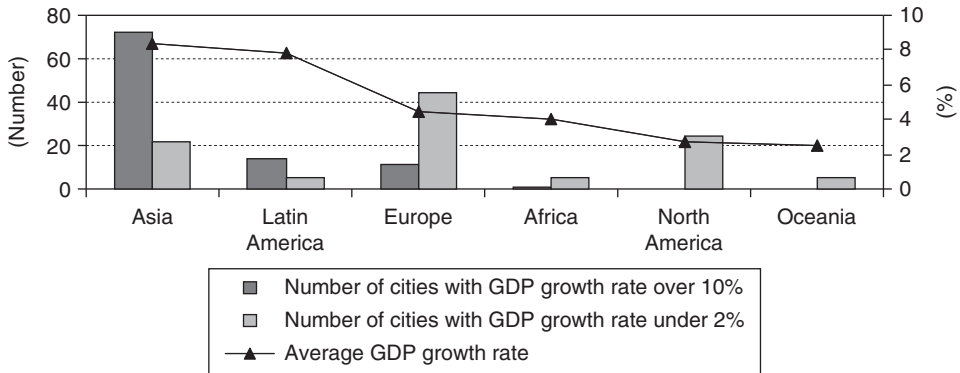


Figure 6.7 Average GDP growth rates of cities during the 2001–05 time frame by continents

respectively. In the Americas, the average growth rates of US and Canadian cities are 2.65 percent and 2.78 percent respectively, while those of Mexico and Brazil are 10.73 percent and 9.21 percent respectively. See Table 6.5 for top cities based on the five-year average GDP growth rates of cities in the three continents.

Table 6.4 The top 20 and the bottom 20 cities in the 500 sample cities in terms of GDP percentage growth rate

City	Country	Continent	GDP growth rate	Rank	City	Country	Continent	GDP growth rate	Rank
Baotou	China	EAs	20.00	1	Nagoya	Japan	EAs	0.10	481
Huhehaote	China	EAs	20.00	2	Riga	Latvia	EEu	0.09	482
Yantai	China	EAs	19.57	3	Berlin	Germany	CEu	0.06	483
Dongguan	China	EAs	19.25	4	Georgetown	Guyana	Sam	0.04	484
Baku	Azerbaijan	WAs	19.00	5	Basel	Switzerland	CEu	0.02	485
Zhongshan	China	EAs	18.44	6	Kobe	Japan	EAs	0.01	486
Huizhou	China	EAs	18.11	7	Sarajevo	Bosnia and Herzegovina	EEu	0.00	487
Weifang	China	EAs	17.98	8	Sakai	Japan	EAs	-0.02	488
Wuhu	China	EAs	17.97	9	Osaka	Japan	EAs	-0.02	489
Manaus	Brazil	SAm	17.96	10	Bern	Switzerland	CEu	-0.19	490
Weihai	China	EAs	17.55	11	Sapporo	Japan	EAs	-0.28	491
Hefei	China	EAs	17.37	12	Taipei	China	EAs	-0.30	492
Doha	Qatar	WAs	17.35	13	Kanazawa	Japan	EAs	-0.37	493
Rizhao	China	EAs	17.34	14	Kitakyusyu	Japan	EAs	-0.54	494
Nanchang	China	EAs	17.18	15	New Orleans	United States	NAm	-0.65	495
Veracruz	Mexico	SAm	16.90	16	Okayama	Japan	EAs	-0.86	496
Omsk	Russia	EEu	16.74	17	Mainz	Germany	CEu	-0.97	497
Zibo	China	EAs	16.74	18	Victoria	Seychelles	EAF	-1.79	498
Shenzhen	China	EAs	16.64	19	Taichung	China	EAs	-2.43	499
Suzhou	China	EAs	16.44	20	Harare	Zimbabwe	SAF	-7.38	500

Note: NAm = North America, SAm = South America, WEu = Western Europe, NEu = Northern Europe, SEu = Southern Europe, CEu = Central Europe, EEu = Eastern Europe, East = East Asia, SAs = South Asia, SEa = South East Asia, WAF = West Africa, SAF = Southern Africa, CAF = Central Africa, O = Oceania, C = Caribbean.

Table 6.5 Top cities based on five-year average GDP growth rates in North America, Asia and Europe

Regional rank	North America			Asia			Europe		
	City	Country	Global rank	City	Country	Global rank	City	Country	Global rank
1	Fresno	USA	129	Baotou	China	1	Omsk	Russia	17
2	El Paso	USA	174	Huhehaote	China	2	Macha-ckala	Russia	56
3	Las Vegas	USA	186	Yantai	China	3	Groznyj	Russia	57
4	Arlington	USA	240	Dong-guan	China	4	Minsk	Belarus	58
5	Fort Worth	USA	241	Baku	Azerbaijan	5	Lipect	Russia	63
6	Sacramento	USA	242	Zhongshan	China	6	Belgorod	Russia	65
7	Long Beach	USA	262	Huizhou	China	7	T'umen	Russia	66
8	Oakland	USA	267	Weifang	China	8	Moscow	Russia	71
9	Oklahoma City	USA	271	Wuhu	China	9	St Petersburg	Russia	90
10	Tucson	USA	272	Weihai	China	11	Kemerovo	Russia	92

SLOW GROWTH IN CITIES OF DEVELOPED COUNTRIES BUT FAST ECONOMIC GROWTH IN CITIES OF EMERGING COUNTRIES UNDERGOING INDUSTRIALIZATION AND TRANSITION

The GDP growth of some cities has distinct national characteristics. In general, the GDP growth in cities of developed countries has been slow. For example, no GDP growth rate of a city in Britain, Germany, Japan, the United States and Canada exceeds 3 percent. On the other hand, countries undergoing industrialization or transition have maintained high growth. Developing countries, such as China, India, Mexico, Brazil and Russia have maintained GDP growth rates higher than 6 percent. In some of the Latin American and African countries, both GDP growth rates and city development have been slow. In many developing countries, GDP has been growing in cities very slowly.

DEVELOPMENT LEVEL: SUBSTANTIAL SPATIAL GAPS AND DISTINCT REGIONAL GROUPS EXIST

Economic development level is the foundation for the competitiveness and development of a city. Gross domestic product per capita is an important index of the development level of a city or a region. In spite of the substantial gaps, GDP per capita of cities shows a normal distribution. Geneva is the city with the highest income per capita, which is US\$62 676.92 (2005), and Kinshasa has the lowest, which is US\$206.77. Twenty-two cities have reported GDP per capita higher than US\$50 000; 162 higher than US\$30 000; 235 higher than US\$10 000; 299 higher than US\$5 000; and 47 lower than US\$1 000. Figure 6.8 and Table 6.6 show the incomes per capita of the cities worldwide.

NORTH AMERICAN AND EUROPEAN CITIES HAVE THE HIGHEST LEVELS OF DEVELOPMENT

In terms of GDP per capita, all of the top 20 cities are in North America and Europe. Specifically, six are in North America and the rest are in West, Central and Northern Europe. Among the top 150 cities, 68 are in North America, accounting for 97.1 percent of the sample cities of the region; 57 are in Europe, accounting for 39.9 percent; 16 are in Asia, accounting for 8.8 percent; and 9 are in Oceania, accounting for 7.5 percent. None of the Latin American and African cities is on the top 150 list. Among the bottom 150 cities, 83 are in Asia, accounting for 45.9 percent of the sample cities of the region; 32 are in Europe, accounting for 22.4 percent; 26 are in Africa, accounting for 17.2 percent; eight are in Latin America, accounting for 5.3 percent; one in Oceania, accounting for 0.7 percent. None of the North American cities is on the bottom 150 list. By region, North America and Oceania have the highest GDP per capita, which are US\$43 077.1 and US\$34 530.3 respectively, followed by Europe, US\$23 396.4; and Asia US\$9 087.4. Latin America and Africa have the lowest GDP per capita, which are US\$8 362.3 and US\$2 615.5 respectively. In general, GDP per capita of coastal cities are higher than those of inland cities. Figure 6.9 shows the average GDP per capita of cities in different regions.

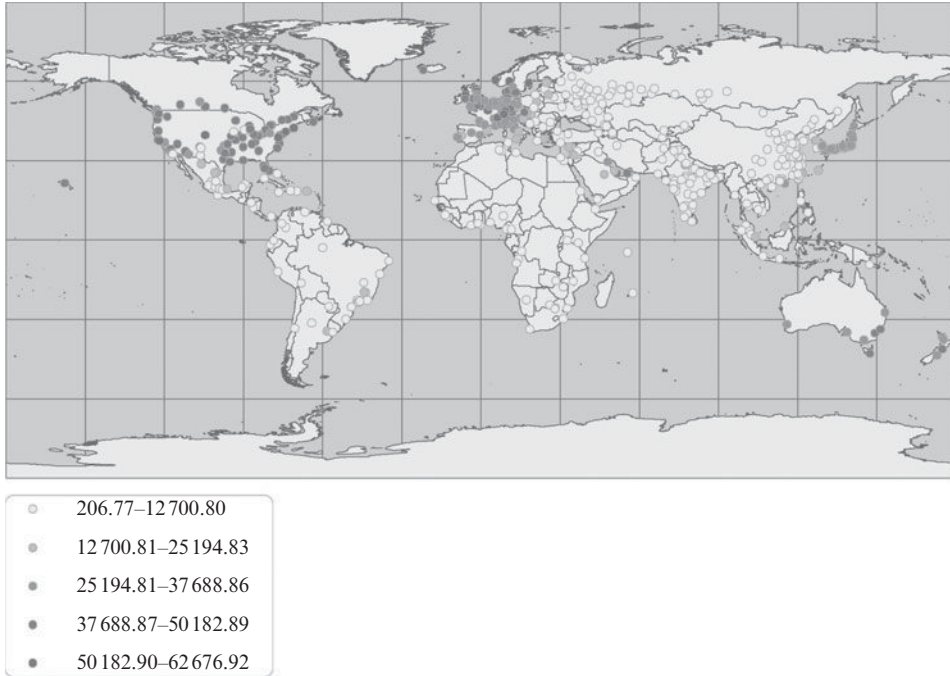


Figure 6.8 GDP per capita of cities in the world (unit: US\$)

See Table 6.7 for GDP per capita of cities in three major continents. The highest ranking city in Asia lags far behind those in Europe and North America.

NORTH AMERICAN AND EUROPEAN CITIES HAVE THE HIGHEST DEVELOPMENT LEVEL

Among the top 150 cities, 56 are in the United States, accounting for 98.2 percent of the sample cities of the nation; 16 are in Britain, accounting for 55.6 percent; 13 are in Japan, accounting for 59.1 percent; 13 are in Germany, accounting for 76.5 percent; 12 are in Canada, accounting for 92.3 percent; eight are in France, accounting for 100 percent; and three are in Italy, accounting for 33.3 percent.

Among the bottom 150 cities, none is in G7 countries; 43 are in India, accounting for 100 percent of its sample cities; 31 are in Russia, accounting for 62 percent; 16 are in China (including Taiwan), accounting for 25.8 percent; and 1 in Brazil, accounting for 6.7 percent.

ECONOMIC CONCENTRATION: UNEVEN SPATIAL DISTRIBUTION AND UNCLEAR REGIONAL GROUPING

Economic concentration enables economies to benefit from external economies and improve their efficiency. Gross domestic product per square kilometer is an important

Table 6.6 The top 20 and the bottom 20 cities among the 500 sample cities in terms of GDP per capita (unit: \$)

City	Country	Continent	GDP per capita	Rank	City	Country	Continent	GDP per capita	Rank
Geneva	Switzerland	CEu	62676.92	1	Madurai	India	SAs	534.76	481
New York	US	NAm	61178.19	2	Agra	India	SAs	477.00	482
Oakland	US	NAm	60638.41	3	Kampala	Uganda	EAF	473.60	483
Edinburgh	UK	WEu	59540.23	4	Meerut	India	SAs	458.01	484
Washington	US	NAm	58548.98	5	Maputo	Mozambique	SAF	454.76	485
London	UK	WEu	57948.69	6	Mysore	India	SAs	448.20	486
Oslo	Norway	NEu	57931.40	7	Pyongyang	North Korea	EAS	444.60	487
Belfast	UK	WEu	56105.86	8	Blantyre	Malawi	SAF	435.00	488
Basel	Switzerland	CEu	55247.85	9	Allahabad	India	SAs	406.70	489
Zurich	Switzerland	CEu	54056.00	10	Haora	India	SAs	370.61	490
Helsinki	Finland	NEu	53920.26	11	Freetown	Sierra Leone	WAF	370.17	491
Paris	France	WEu	53725.29	12	Lome	Togo	WAF	361.14	492
Boston	US	NAm	53456.08	13	Yangon	Myanmar	SEa	360.95	493
San Jose	US	NAm	52990.76	14	Asansol	India	SAs	331.75	494
San Francisco	US	NAm	52905.12	15	Nasik	India	SAs	323.36	495
Stockholm	Sweden	NEu	52812.58	16	Kabul	Afghanistan	WAs	319.26	496
Nottingham	UK	WEu	51438.05	17	Addis Ababa	Ethiopia	NAf	308.47	497
Bergen	Norway	NEu	51169.84	18	Dushanbe	Tajikistan	CAs	302.50	498
Glasgow	UK	WEu	51044.35	19	Vijayawada	India	SAs	251.40	499
Copenhagen	Denmark	NEu	51001.45	20	Kinshasa	Zaire	CAs	206.77	500

Notes: The data for London covers the Greater London Region; the data for Rangoon covers the urban districts only.

NAm = North America, SAm = South America, WEu = Western Europe, NEu = Northern Europe, SEu = Southern Europe, CEu = Central Europe, EEu = Eastern Europe, EAs = East Asia, SAs = South Asia, SEa = South East Asia, WAF = West Africa, SAF = Southern Africa, CAF = Central Africa, O = Oceania, C = Caribbean.

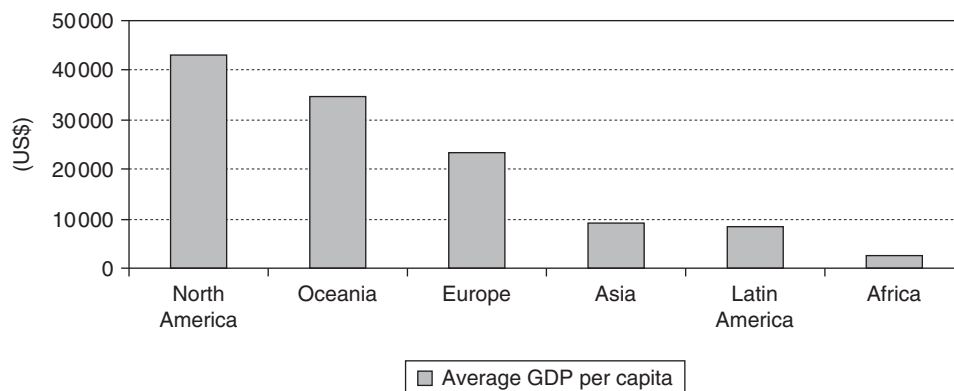


Figure 6.9 GDPs per capita of cities by continent

index of output concentration resulting from the concentration of production factors. Figure 6.10 and Table 6.8 show that, the GDP per square kilometer ranking is not like that of GDP per capita. On the top ranking list, there are both large and small cities. Specifically, six of the cities are in Asia, seven in North America and seven in Europe, indicating an even geographical distribution.

CONTINENTAL TOP CITIES ARE LARGELY CLOSE WITH SUBSTANTIAL GAPS BETWEEN CONTINENTAL AVERAGE CITIES

See Table 6.9 for the GDP per square kilometer ranks of cities in three major continents. Asia's top ranking cities are close to those of Europe and North America. Similarly, most of the high-ranking cities in terms of GDP per square kilometer are in Europe, North America and Asia. North America and Europe have the highest average GDP per square kilometer, which are US\$107 576 100 and US\$72 854 530 respectively, followed by Oceania, US\$42 128 520; Latin America, US\$60 499 960; Asia, US\$34 087 390 and Africa, US\$10 778 990. The GDP per square kilometer of the lowest ranking cities in Latin America and Africa are as low as US\$8362.3 and US\$2615.5 respectively (see Figure 6.11).

NORTH AMERICAN AND OCEANIA CITIES GENERALLY HAVE HIGH RANKINGS AND NARROW GAPS WHILE ASIAN, AFRICAN AND SOUTH AMERICAN CITIES HAVE WIDE GAPS WITH A FEW TOP CITIES

Among the top 150 cities, 58 are in Europe, accounting for 40.6 percent of the sample cities of the region; 38 are in North America, accounting for 54.3 percent; 26 are in Latin America, accounting for 44.8 percent; 22 are in Asia, accounting for 12.2 percent; four are in Oceania, accounting for 33.3 percent; two are in Asia, accounting for 5.6 percent. Figure 6.12 shows the regional distribution of the top 150 cities. Among the bottom 150

Table 6.7 Top ten cities in terms of GDP per capita in North America, Asia and Europe

Regional rank	North America			Asia			Europe		
	City	Country	Global rank	City	Country	Global rank	City	Country	Global rank
1	New York	US	2	Tokyo	Japan	39	Geneva	Switzerland	1
2	Oakland	US	3	Doha	Qatar	58	Edinburgh	UK	4
3	Washington	US	5	Dubai	UAE	80	London	UK	6
4	Boston	US	13	Nagoya	Japan	85	Oslo	Norway	7
5	San Jose	US	14	Osaka	Japan	106	Belfast	UK	8
6	San Francisco	US	15	Kyoto	Japan	110	Basel	Switzerland	9
7	Dallas	US	21	Shizuoka	Japan	111	Zurich	Switzerland	10
8	Denver	US	22	Kanazawa	Japan	117	Helsinki	Finland	11
9	Seattle	US	23	Akita	Japan	120	Paris	France	12
10	Minneapolis	US	24	Ulsan	South Korea	122	Stockholm	Sweden	16

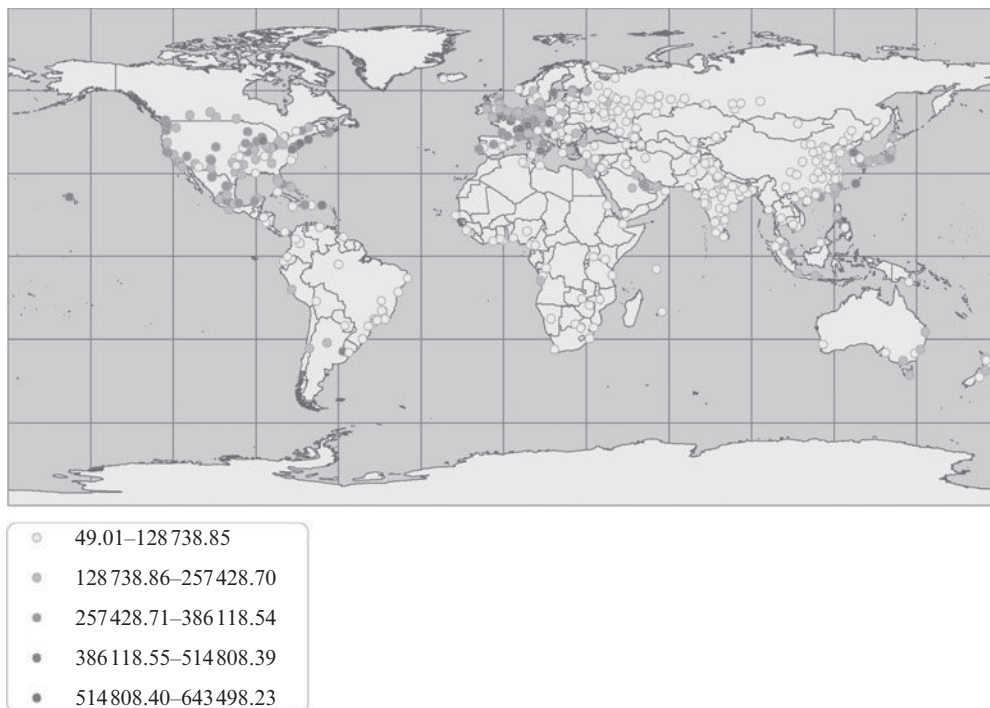


Figure 6.10 GDP per square kilometer of cities worldwide (unit: \$ thousands)

cities, 80 are in Asia, accounting for 44.2 percent of the sample cities of the region; 36 are in Europe, accounting for 25.2 percent; 22 are in Africa, accounting for 61.1 percent; nine are in Latin America, accounting for 15.5 percent; three are in Oceania, accounting for 25 percent; and none of the North American cities is on the bottom 150 of the rankings.

EMPLOYMENT OF URBAN RESIDENTS: CITIES IN TRANSITIONAL AND INDUSTRIALIZING COUNTRIES HAVE THE HIGHEST RANKING, FOLLOWED BY THOSE IN DEVELOPED COUNTRIES, WHILE CITIES IN LESS DEVELOPED REGIONS HAVE RELATIVELY LOW RANKING

Employment rate of urban residents is closely connected with the macroeconomic situation of a nation. In general, countries undergoing transition and industrialization, for example, China, Russia and Mexico have higher employment rates. Table 6.10 shows the employment rates of selected cities. In the less developed African countries and warring countries in Europe and Asia, for example, the sub-Saharan regions and southeastern European and the Middle East regions, urban employment rates tend to be low. The bottom 20 cities on the employment ranking list are, sequentially: Lomé, Blantyre, Freetown, Kabul, Johannesburg, Windhoek, Addis Ababa, Belgrade, Durban, Sana'a, Luanda, Nairobi, Kampala, Sarajevo, Port-au-Prince, Harare, Kinshasa, Djibouti,

Table 6.8 The top 20 and bottom 20 cities in the 500 sample cities in terms of GDP per square kilometer

City	Country	Continent	GDP per square kilometer	Rank	City	Country	Continent	GDP per square kilometer	Rank
New York	US	NAm	643498.2	1	Abijan	Côte d'Ivoire	Waf	761.30	481
Geneva	Switzerland	CEu	633715.1	2	Pyongyang	North Korea	EAs	744.93	482
Victoria	Canada	NAm	565083.3	3	Thane	India	SAs	678.01	483
Macao	China	EAs	482636.2	4	Rabat	Morocco	NAf	626.23	484
Lyons	France	WEu	337620.8	5	Meerut	India	SAs	611.23	485
San Francisco	US	NAm	326156.5	6	Victoria	Seychelles	Eaf	562.43	486
Manchester	UK	WEu	309761.2	7	Vijayawada	India	SAs	557.40	487
San Juan	Puerto Rico	Latin America	302016.4	8	Amritsar	India	SAs	530.43	488
Nottingham	UK	WEu	300355.8	9	Indore	India	SAs	517.03	489
Kawasaki	Japan	EAs	296998.8	10	Varanasi	India	SAs	512.24	490
Seoul	South Korea	EAs	291700.6	11	Asansol	India	SAs	507.62	491
London	UK	WEu	278009.3	12	Agra	India	SAs	480.86	492
Milan	Italy	SEu	275183.0	13	Allahabad	India	SAs	414.93	493
Nagoya	Japan	EAs	274949.6	14	Visakhapatnam	India	SAs	402.40	494
Tokyo	Japan	EAs	267458.6	15	Jabalpur	India	SAs	256.59	495
Boston	US	NAm	260997.8	16	Rajkot	India	SAs	185.31	496
Yokohama	Japan	EAs	253615.2	17	Ulan Bator	Mongolia	EAs	152.09	497
Wilmington	US	NAm	252058.8	18	Kinshasa	Zaire	CAF	125.51	498
Bristol	UK	WEu	247874.5	19	Groznyj	Russia	EEu	55.97	499
Honolulu	US	NAm	247117.0	20	Djibouti	Djibouti	Eaf	49.01	500

Note: The data for London covers the Greater London Region. Unit = \$ thousands.

NAm = North America, SAM = South America, WEu = Western Europe, NEu = Northern Europe, SEu = Southern Europe, CEu = Central Europe, EEu = Eastern Europe, EAs = East Asia, SAs = South Asia, SEa = South East Asia, Waf = West Africa, Saf = Southern Africa, CAF = Central Africa, O = Oceania, C = Caribbean.

Table 6.9 Top ten cities in North America, Asia and Europe in terms of GDP per square kilometer

Region rank	North America			Asia			Europe		
	City	Country	Global rank	City	Country	Global rank	City	Country	Global rank
1	New York	USA	1	Macao	China	4	Geneva	Switzerland	2
2	Victoria	Canada	3	Kawasaki	Japan	10	Lyon	France	5
3	San Francisco	USA	6	Seoul	South Korea	11	Manchester	UK	7
4	Boston	USA	16	Nagoya	Japan	14	Nottingham	UK	9
5	Wilmington	USA	18	Tokyo	Japan	15	London	UK	12
6	Honolulu	USA	20	Yokohama	Japan	17	Milan	Italy	13
7	Chicago	USA	23	Okinawa	Japan	29	Bristol	UK	19
8	Washington	USA	27	Sakai	Japan	31	Basel	Switzerland	21
9	Philadelphia	USA	28	Tel Aviv	Israel	41	Palermo	Italy	22
10	Vancouver	Canada	37	Hong Kong	China	46	Turin	Italy	24

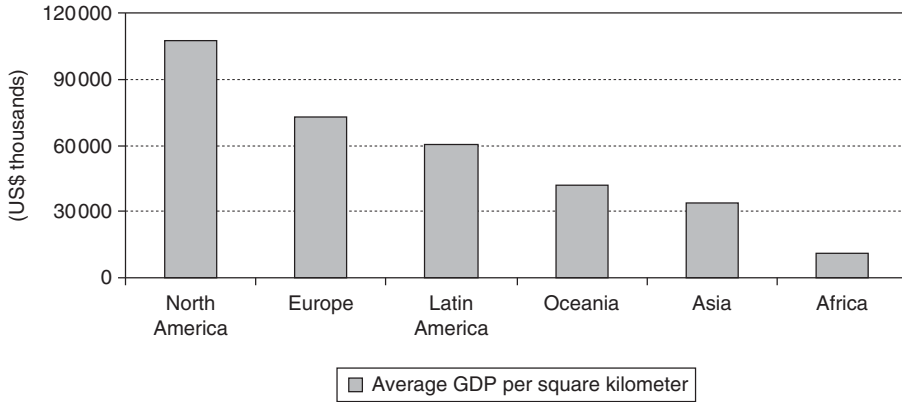


Figure 6.11 GDP per square kilometer of cities by continent

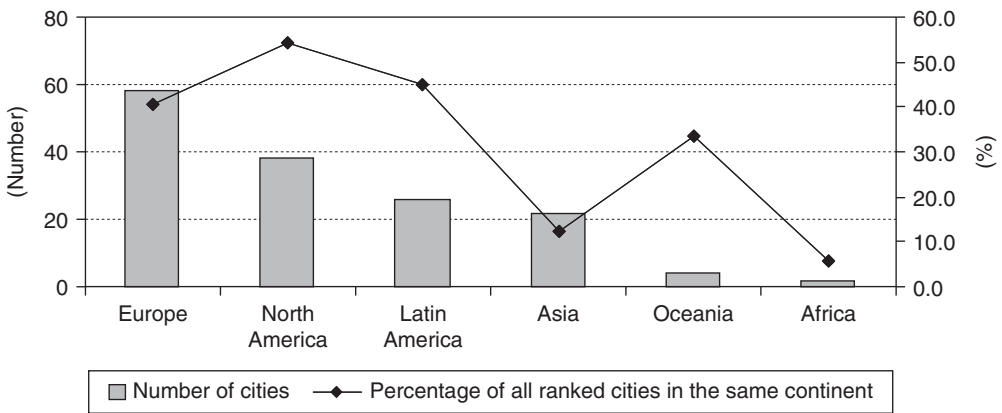


Figure 6.12 GDP per square kilometer of the top 150 cities by continent

Brazzaville and Grozny. In Russia’s Chechen Republic, the employment rate is as low as 25.8 percent. In Djibouti, it is 41 percent and in Brazzaville, 40 percent. In developed countries, the employment rate is generally maintained at a high level. However, some individual cities in these countries have relatively low employment rates, for example, 86.8 percent in Lille, France, 79.5 percent in Detroit, the United States, 79.2 percent in Leipzig and 78.5 percent in Berlin, Germany and 77.79 percent in Naples, Italy.

See Table 6.11 for the top ten cities in three major continents. It indicates that Asian, particularly Chinese cities have the highest employment rates.

SUBSTANTIAL PRODUCTIVITY GAPS EXIST AMONG CITIES IN THE WORLD

On the top of this list is London, US\$161120.66, which is 317.6 times of Dushanbe’s US\$507.26, the bottom city. The average level of the top ten cities in terms of

Table 6.10 The top 20 and bottom 20 cities in the 500 sample cities in terms of employment rate

City	Country	Continent	Employment rate	Rank	City	Country	Continent	Employment rate	Rank
Moscow	Russia	EEu	99.20	1	Conakry	Guinea	Waf	70.00	481
Tijuana	Mexico	SAm	99.10	2	Lome	Togo	Waf	70.00	482
Baku	Azerbaijan	WAs	99.02	3	Freetown	Sierra Leone	Waf	70.00	483
Acapulco	Mexico	SAm	99.00	4	Yaounde	Cameroon	CAF	70.00	484
Qanzhou	China	EAs	98.83	5	Johannesburg	Saf	Saf	69.20	485
Oakland	USA	NAm	98.67	6	Windhoek	Namibia	Saf	69.00	486
Al Kuwait	Kuwait	WAs	98.51	7	Addis Ababa	Ethiopia	Naf	68.60	487
Minsk	Belarus	EEu	98.50	8	Belgrade	Srbija	EEu	68.40	488
Shenzhen	China	EAs	98.40	9	Durban	Saf	Saf	67.00	489
Huizhou	China	EAs	98.20	10	Sanaa	Yemen	WAs	65.00	490
Weihai	China	EAs	98.09	11	Nairobi	Kenya	Naf	60.00	491
Dushanbe	Tajikistan	CAs	98.00	12	Luanda	Angola	Saf	60.00	492
Victoria	Seychelles	Eaf	98.00	13	Kampala	Uganda	Eaf	57.00	493
Beijing	China	EAs	97.92	14	Sarajevo	Bosnia and Herzegovina	EEu	56.00	494
San Luis Potosi	Mexico	SAm	97.90	15	Port-au-Prince	Haiti	SAm	50.00	495
St Petersburg	Russia	EEu	97.80	16	Harare	Zimbabwe	Saf	50.00	496
Dongguan	China	EAs	97.76	17	Kinshasa	Zaire	CAF	50.00	497
Merida	Mexico	SAm	97.70	18	Djibouti	Djibouti	Eaf	41.00	498
Morelia	Mexico	SAm	97.70	19	Brazzaville	Congo	CAF	40.00	499
Arlington	United States	NAm	97.69	20	Groznyj	Russia	EEu	25.80	500

Note: NAm = North America, SAm = South America, WEu = Western Europe, NEu = Northern Europe, SEu = SEu, CEu = Central Europe, EEu = Eastern Europe, EAs = East Asia, SAs = South Asia, SEa = South East Asia, Waf = West Africa, Saf = Southern Africa, CAF = Central Africa, O = Oceania, C = Caribbean.

Table 6.11 Top ten cities in North America, Asia and Europe in terms of employment rate

Regional rank	North America			Asia			Europe		
	City	Country	Global Rank	City	Country	Global Rank	City	Country	Global Rank
1	Oakland	US	6	Baku	Azerbaijan	3	Moscow	Russia	1
2	Arlington	US	20	Quanzhou	China	5	Minsk	Belarus	8
3	Fort Worth	US	21	Al Kuwait	Kuwait	7	St Petersburg	Russia	16
4	El Paso	US	24	Shenzhen	China	9	Chester	UK	30
5	Tucson	US	27	Huizhou	China	10	Reykjavik	Iceland	43
6	Long Beach	US	32	Weihai	China	11	Kiev	Ukraine	50
7	Fresno	US	39	Dushanbe	Tajikistan	12	Norwich	UK	59
8	Omaha	US	51	Beijing	China	14	Prague	Czech Republic	66
9	Virginia Beach	US	62	Dongguan	China	17	Nottingham	UK	78
10	Oklahoma City	US	70	Zhuhai	China	22	Sofia	Bulgaria	94

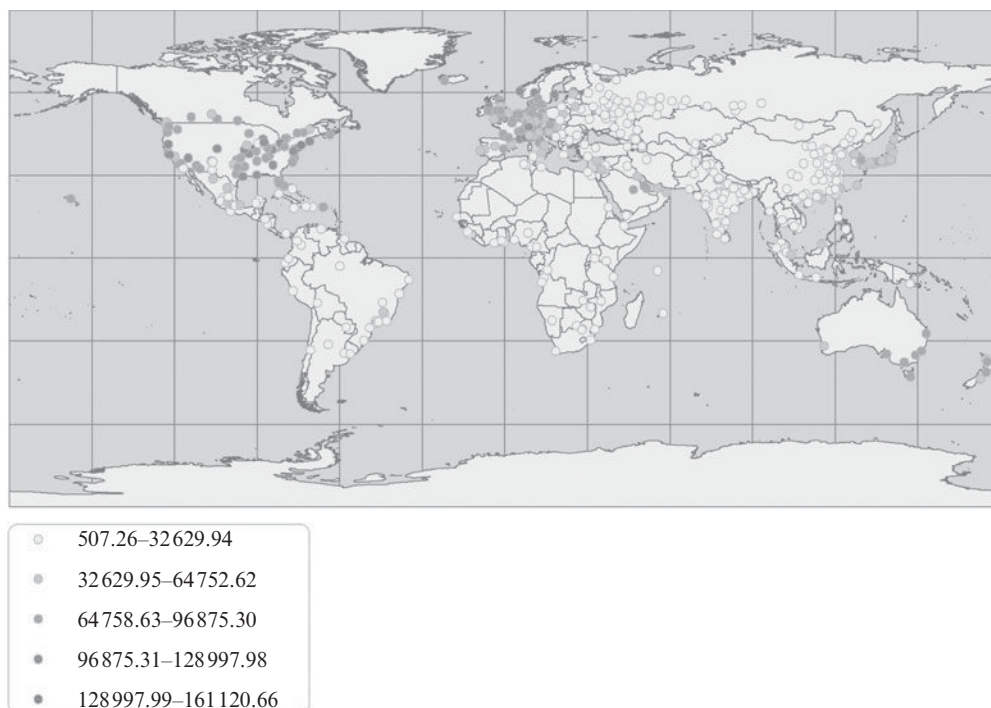


Figure 6.13 Labor productivities of cities in the world (unit: \$ per worker)

productivity is US\$128 487.0, which is 158.5 times of that of the bottom ten cities on the list, US\$810.9. The average level of the top 150 cities is US\$86 301.9, which is 21 times of that of the bottom 150 cities, US\$4114.063. Figure 6.13 and Table 6.12 show productivity ranks of cities worldwide.

NORTH AMERICAN, EUROPEAN AND EAST ASIAN CITIES HAVE HIGHER PRODUCTIVITY LEVELS THAN AFRICAN AND LATIN AMERICAN CITIES

Similar to the case of GDP per capita, most cities with high productivity levels are in Europe and North America. Among the top 20 cities, 13 are in North America and seven in Europe. Among the top 150 cities, 66 are in North America, accounting for 94.3 percent of the sample cities of the region; 60 are in Europe, accounting for 42 percent; 14 are in Asia, accounting for 7.7 percent; 9 are in Oceania, accounting for 75 percent; one in Latin America, accounting for 1.7 percent; and none of the African cities is on the top 150 list. Figure 6.14 shows the distribution of the 150 most productive cities by continent. Among the bottom 150 cities, 80 are in Asia, accounting for 44.2 percent of the sample cities of the region; 34 are in Europe, accounting for 23.8 percent; 24 are in Africa, accounting for 66.7 percent; 11 are in Latin America, accounting for 19 percent; one in Oceania, accounting for 8.3 percent; and none of the North American cities is on

Table 6.12 The top 20 and bottom 20 cities in the 500 sample cities in terms of productivity (unit: \$)

City	Country	Continent	Productivity	Rank	City	Country	Continent	Productivity	Rank
London	UK	WEu	161120.7	1	Agra	India	SAs	1543.21	481
New York	USA	NAm	141880.7	2	Rajkot	India	SAs	1535.20	482
Detroit	USA	NAm	141259.2	3	Meerut	India	SAs	1465.09	483
New Orleans	USA	NAm	126097.1	4	Blantyre	Malawi	SAF	1435.74	484
Philadelphia	USA	NAm	124986.8	5	Madurai	India	SAs	1353.76	485
Boston	USA	NAm	121893.5	6	Allahabad	India	SAs	1278.36	486
Cleveland	USA	NAm	119658.1	7	Maputo	Mozambique	SAF	1253.57	487
Oslo	Norway	NEu	118069.9	8	Mysore	India	SAs	1252.20	488
San Jose	USA	NAm	116237.8	9	Freetown	Sierra Leone	WAF	1252.08	489
Baltimore	USA	NAm	113666.5	10	Lome	Togo	WAF	1203.81	490
Stockholm	Sweden	NEu	112377.1	11	Haora	India	SAs	1199.18	491
Helsinki	Finland	NEu	111562.7	12	Kinshasa	Zaire	CAF	1198.67	492
Oakland	USA	NAm	111534.6	13	Asansol	India	SAs	1027.41	493
Buffalo	USA	NAm	109947.1	14	Kabul	Afghanistan	WAs	894.27	494
Houston	USA	NAm	109813.6	15	Nasik	India	SAs	813.95	495
Glasgow	UK	WEu	108941.1	16	Addis Ababa	Ethiopia	NAF	697.15	496
Chicago	USA	NAm	108559.2	17	Yangon	Myanmar	SEa A	660.98	497
Nice	France	WEu	108162.2	18	Vijayawada	India	SAs	600.48	498
Atlanta	USA	NAm	107250.7	19	Pyongyang	North Korea	EAs	509.34	499
Marseille	France	WEu	106964.2	20	Dushanbe	Tajikistan	CAs	507.26	500

Note: The data for London covers the Greater London Region.

NAm = North America, SAm = South America, WEu = Western Europe, NEu = Northern Europe, SEu = Southern Europe, CEu = Central Europe, EEu = Eastern Europe, EAs = East Asia, SAs = South Asia, SEa = South East Asia, WAF = West Africa, SAF = Southern Africa, CAF = Central Africa, O = Oceania, C = Caribbean.

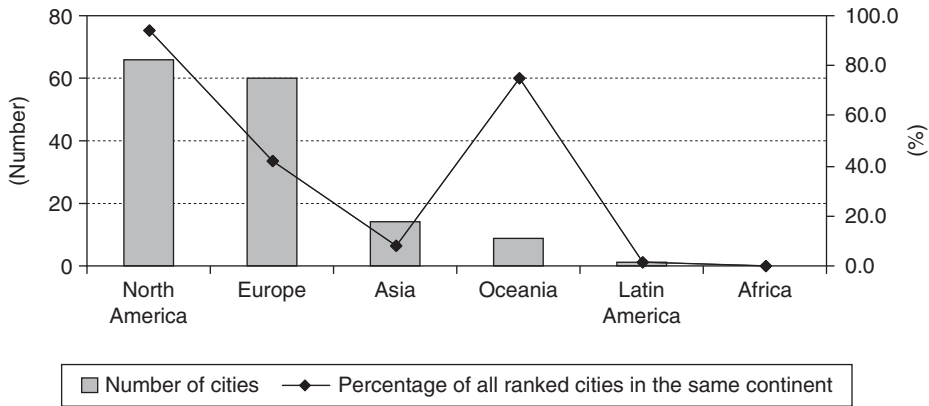


Figure 6.14 The distribution of the 150 most productive cities by continent

the bottom 150 list. Statistics for the top ten cities of the three major continents (see Table 6.13) indicate that the North American cities maintain an absolute leadership, and that the Asian cities have a long way to go.

US CITIES MAINTAIN AN ABSOLUTE LEADERSHIP WHILE INDIAN CITIES HAVE EXTREMELY LOW PRODUCTIVITY LEVELS

Among the top 20 cities, 13 are in the United States; two are in Britain and two in France. Ten of the bottom 20 cities are in India. Among the top 150 cities, 114 are in the G7 countries; none is in the BRICs.² Specifically, 54 are in the United States, accounting for 94.7 percent of the sample cities of the country; 14 are in Britain, accounting for 77.8 percent; 14 are in Germany, accounting for 82.4 percent; 12 are in Canada, accounting for 92.3 percent; ten are in Japan, accounting for 45.5 percent; eight are in France, accounting for 100 percent; and two are in Italy, accounting for 22.2 percent (see Figure 6.15).

Among the bottom 150 cities, none is in the G7 countries; 95 are in Brazil, Russia, India and China – the so-called BRIC countries. Specifically, 43 are in India, accounting for 100 percent of the sample cities of the country; 33 are in Russia, accounting for 66 percent; 16 are in China (including Taiwan), accounting for 25.8 percent; and three are in Brazil, accounting for 20 percent.

TECHNICAL INNOVATION IS DOMINATED BY MAJOR CITIES IN DEVELOPED COUNTRIES, WHILE MANY CITIES IN DEVELOPING COUNTRIES ARE RISING FAST

Technological innovation is the core part of a city’s competitiveness. The results of technical innovation are important reflections of the competitiveness. The number of

Table 6.13 Top ten cities in North America, Asia and Europe in terms of labor productivity

Regional rank	North America			Asia			Europe		
	City	Country	Global rank	City	Country	Global rank	City	Country	Global rank
1	New York	US	2	Tokyo	Japan	69	London	UK	1
2	Detroit	US	3	Ulsan	South Korea	91	Oslo	Norway	8
3	New Orleans	US	4	Nagoya	Japan	110	Stockholm	Sweden	11
4	Philadelphia	US	5	Osaka	Japan	114	Helsinki	Finland	12
5	Boston	US	6	Manama	Bahrain	125	Glasgow	UK	16
6	Cleveland	US	7	Okayama	Japan	126	Nice	France	18
7	San Jose	US	9	Kyoto	Japan	128	Marseille	France	20
8	Baltimore	US	10	Kanazawa	Japan	130	Edinburgh	UK	22
9	Oakland	US	13	Doha	Qatar	134	Rotterdam	Netherlands	24
10	Buffalo	US	14	Shizuoka	Japan	137	Copenhagen	Denmark	26

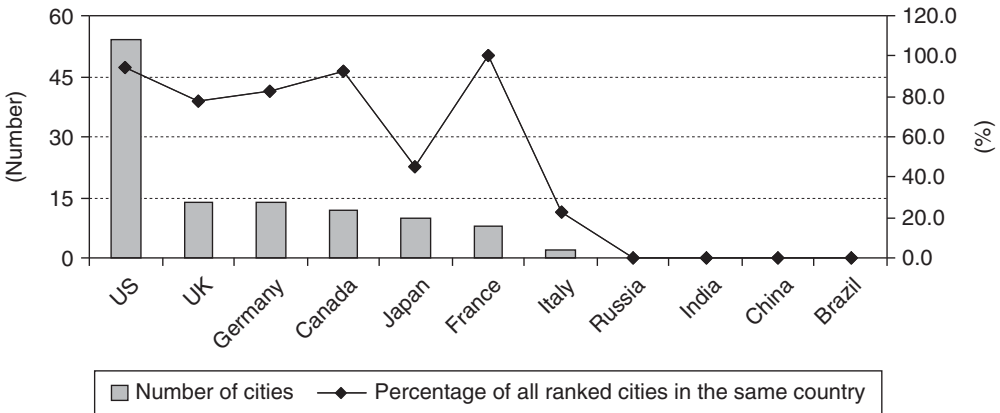


Figure 6.15 The distribution of the most productive 150 by country

patent applications is one of the key indexes of urban competitiveness, if not all about it. The top 20 cities in terms of patent application are Tokyo, Osaka, Paris, London, New York, Seoul, Stuttgart, San Diego, San Jose, Stockholm, Wilmington, Houston, Yokohama, Washington, Palo Alto, Kawasaki, San Francisco, Chiba, Berlin and Kyoto. The number of patent applications of some cities, including Bryansk, Oronez, Lipeck, Ryazan, Archangelsk, Machackala, Groznyj, Astra Chan, Niznij Novgorod, Uljanovsk, T’umen, Cel’abinsk, Chabarovs, Kanpur, Surat, Nagpur, Bhopal, Ludhiana, Asansol, Haora, Pimpri-Chichwad, Cochi, Ghaziabad, Srinagar and Vijayawada are almost zero. Analysis indicates that most of the world’s innovation centers are world cities and central high-tech cities in major countries. In spite of the fast rise of some of the central cities, most other cities in the peripheral regions remain weak in terms of innovation capability. Figure 6.16 shows the distribution of technical innovation cities worldwide.

Among the top 20 cities in terms of patent applications, eight are in North America, eight in east Asia, two in Western Europe, two in Central Europe and one in Northern Europe. Among the top 150 cities, 57 are in Europe, accounting for 39.9 percent of the sample cities of the region; 51 are in North America, accounting for 72.9 percent; 32 are in Asia, accounting for 17.7 percent; six are in Oceania, accounting for 50 percent; two are in Latin America, accounting for 3.4 percent; and two are in Africa, accounting for 5.6 percent. Figure 6.17 shows the distribution of the top 150 cities by continent. Among the bottom 150 cities, 68 are in Asia, accounting for 37.6 percent of the sample cities of the region; 35 are in Europe, accounting for 24.5 percent; 23 are in Latin America, accounting for 39.7 percent; 22 are in Africa, accounting for 61.1 percent; two are in Oceania, accounting for 16.7 percent; and none is in North America.

The continental top ten lists indicate that Asia, North America and Europe are roughly at the same level in terms of technical innovation (see Table 6.14). However, within these regions, technical innovations are mostly made in developed countries, for example, the United States and Japan.

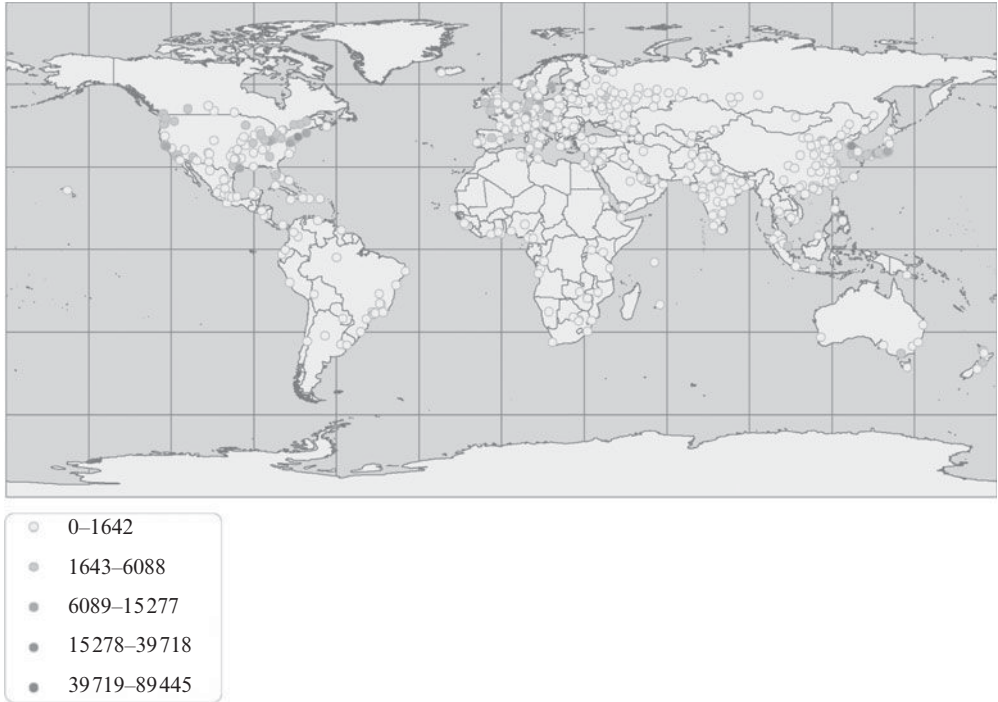


Figure 6.16 International patent applications by cities worldwide (unit: per year)

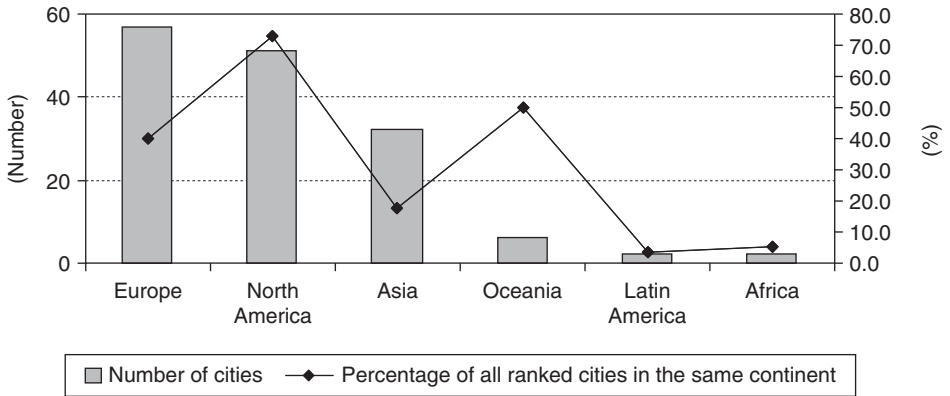


Figure 6.17 The distribution of the 150 most innovative cities by continent

Table 6.14 Top ten cities in North America, Asia and Europe in terms of technical innovation

Regional rank	North America			Asia			Europe		
	City	Country	Global rank	City	Country	Global rank	City	Country	Global rank
1	New York	US	5	Tokyo	Japan	1	Paris	France	3
2	San Diego	US	8	Osaka	Japan	2	London	UK	4
3	San Jose	US	9	Seoul	South Korea	6	Stuttgart	Germany	7
4	Wilmington	US	11	Yokohama	Japan	13	Stockholm	Sweden	10
5	Houston	US	12	Kawasaki	Japan	16	Berlin	Germany	19
6	Washington	US	14	Chiba	Japan	18	Dusseldorf	Germany	22
7	Palo Alto	US	15	Kyoto	Japan	20	Basel	Switzerland	24
8	San Francisco	US	17	Shizuoka	Japan	29	Frankfurt	Germany	25
9	Cincinnati	US	21	Shenzhen	China	33	Hamburg	Germany	26
10	Boston	US	23	Nagoya	Japan	37	Helsinki	Finland	28

US AND JAPANESE CITIES HAVE THE GREATEST CAPACITY FOR TECHNICAL INNOVATION WHILE MANY CENTRAL CITIES IN SOUTH KOREA, CHINA AND INDIA ARE CATCHING UP FAST

In terms of technical innovation, developed countries remain the dominating power. Among the top 20 cities, eight are in the United States and six in Japan. Among the top 150 cities, most are in the G7 countries. Specifically, 44 are in the United States, accounting for 77.2 percent of the sample cities of the country; 16 are in Japan, accounting for 72.7 percent; 15 are in Britain, accounting for 83.3 percent; 14 are in Germany, accounting for 82.4 percent; seven are in Italy, accounting for 53.8 percent; five are in France, accounting for 62.5 percent; three are in Italy, accounting for 33.3 percent. Among the BRICs, China (including Taiwan) has five entries on the list, accounting for 8.1 percent of its sample cities; India has four, accounting for 9.3 percent; Russia has two, accounting for 4 percent; Brazil has none (see Figure 6.18) Among the bottom 150 cities, 68 are in Asia, accounting for 37.6 percent of the sample cities of the region; 35 are in Europe, accounting for 24.5 percent; 23 are in Latin America, accounting for 39.7 percent; 22 are in Africa, accounting for 61.1 percent; two are in Oceania, accounting for 16.7 percent; none is in North America. The continental top ten lists indicate that Asia, North America and Europe are roughly at the same level in terms of technical innovation. However, within these regions, technical innovations are mostly made in developed countries, for example, the United States and Japan.

Among the bottom 150 cities, none is in the G7 countries, and 87 are in the BRICs. Specifically, 33 are in Russia, accounting for 66 percent of the sample cities of the country; 25 are in India, accounting for 58.1 percent; 17 are in China (including Taiwan), accounting for 27.4 percent; and five are in Brazil, accounting for 33.3 percent. Some cities in emerging industrializing developing countries are rising as world innovation centers and innovative cities. Notably, Seoul ranks 6, Shenzhen 33, Singapore 41, Shanghai 47 and Mumbai 49 on the list.

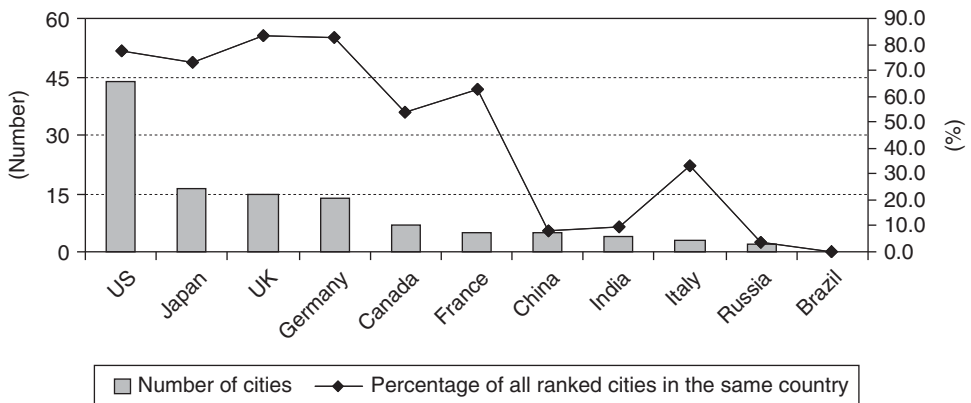


Figure 6.18 The distribution of the most innovative 150 by country

WIDE GAPS EXIST IN THE ECONOMIC CONTROL POWER AMONG CITIES IN THE WORLD, AS THE TRENDS OF CONCENTRATION AND DE-CONCENTRATION BECOME INCREASINGLY CLEAR

Wide gaps exist in economic control power among cities in the world. Cities are becoming increasingly different. While a few cities get very high scores, many others get extremely low scores. The total scores of the top ten and top 150 cities account for 12.5 percent and 72.2 percent of all 500 cities respectively. The total scores of the bottom 150 cities account for merely 4.7 percent of that of all 500 cities. World cities, for example, New York, London, Tokyo, Paris and Hong Kong have powerful economic control. Total score of these cities accounts for as much as 7.2 percent of that of all 500 cities, indicating a distinct feature of concentration. In the meantime, the trend of deconcentration is becoming increasingly clear, too. That means the capitals and economic centers of many developing countries, for example, Singapore, Beijing, Shanghai and Moscow, are among the top ten, while Taipei, Seoul, Bombay, Bangkok, Buenos Aires, Mexico City and Dubai have high ranks, too. Geographic location has considerable impact on the economic control power of a city. In this aspect, coastal cities, with natural advantages, have attracted more multinational companies, which contributed to the improvement of their economic decision making power. These cities have considerable advantages over the inland cities. Yet a further examination reveals that, many inland cities, for example,

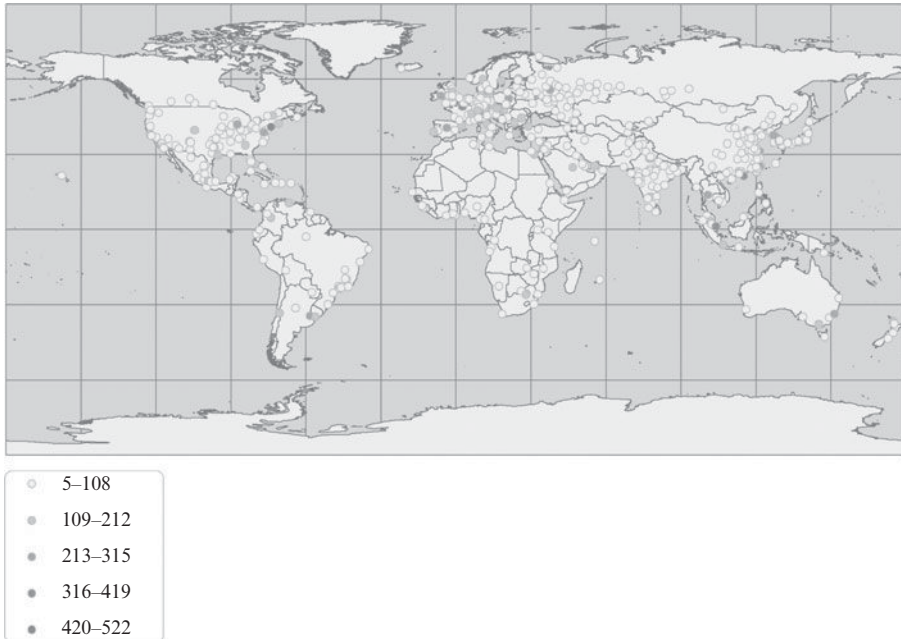


Figure 6.19 The distribution of multinational companies in the world (unit number of MNC headquarters)

Table 6.15 The top 20 and bottom 20 cities in the 500 cities in terms of the presence of multinational companies

City	Country	Continent	Numerical Value	Rank	City	Country	Continent	Numerical Value	Rank
New York	US	North America	20.00	1	Sao Jose dos Campos	Brazil	Latin America	5	481
London	UK	Western Europe	20.00	2	Kalyan	India	South Asia	5	482
Hong Kong	China	East Asia	19.57	3	Sao Bernardo do Campo	Brazil	Latin America	5	483
Paris	France	Western Europe	19.25	4	Tver	Russia	Eastern Europe	5	484
Tokyo	Japan	East Asia	19.00	5	Vladimir	Russia	Eastern Europe	5	485
Singapore	Singapore	Southeast Asia	18.44	6	Visakhapatnam	India	South Asia	5	486
Beijing	China	East Asia	18.11	7	Duque de Caxias	Brazil	Latin America	5	487
Shanghai	China	East Asia	17.98	8	Pyongyang	North Korea	East Asia	5	488
Moscow	Russia	Eastern Europe	17.97	9	Rajkot	India	South Asia	5	489
Sydney	Australia	Oceania	17.96	10	Jerusalem	Israel	West Asia	5	490
Milan	Italy	Southern Europe	17.55	11	Kemerovo	Russia	Eastern Europe	5	491
Madrid	Spain	Southern Europe	17.37	12	Petrozavodsk	Russia	Eastern Europe	5	492
Frankfurt	Germany	Central Europe	17.35	13	Bryansk	Russia	Eastern Europe	5	493
Brussels	Belgium	Western Europe	17.34	14	Voronez	Russia	Eastern Europe	5	494
Los Angeles	US	North America	17.18	15	Lipeck	Russia	Eastern Europe	5	495
Toronto	Canada	North America	16.90	16	Machackala	Russia	Eastern Europe	5	496
Taipei	China	East Asia	16.74	17	Groznyj	Russia	Eastern Europe	5	497
Seoul	South Korea	East Asia	16.74	18	Astra Chan	Russia	Eastern Europe	5	498
Washington	US	North America	16.64	19	Tumen	Russia	Eastern Europe	5	499
Warsaw	Poland	Eastern Europe	16.44	20	Djibouti	Djibouti	East Africa	5	500

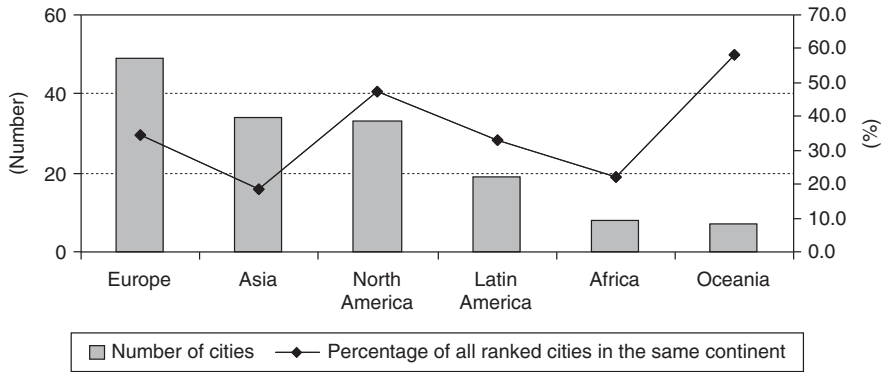


Figure 6.20 The distribution of the top 150 cities in terms of the presence of multinational companies by continent

Beijing, Frankfurt and Delhi have very high scores too. Figure 6.19 and Table 6.15 show the distribution of world cities with high and low ranks.

A SHIFTING TREND OF THE WORLD ECONOMIC CENTERS IS EMERGING

World economic centers have been located in Europe, the United States and Japan exclusively. Yet in addition to Tokyo, Beijing, Shanghai, Taipei and Seoul have entered the top 20 cities in terms of the presence of multinational companies. It indicates that many Asian cities outside Japan are rising in terms of economic control power and might become new world economic centers. In general, the US and European cities still dominate the list. Some Latin American and African cities, for example, Johannesburg and Cairo have fairly high ranks. Many central cities in Asia, including Hong Kong, Beijing, Shanghai and Taipei in China, Singapore, Bangkok, Kuala Lumpur and Jakarta in South East Asia, Seoul in South Korea and Mumbai in India are among the top 50. Among the top 150 cities, 49 are in Europe, accounting for 34.3 percent of the sample cities of the region; 34 are in Asia, accounting for 18.8 percent; 33 are in North America, accounting for 47.1 percent; 19 are in Latin America, accounting for 32.8 percent; eight are in Africa, accounting for 22.2 percent; and seven are in Oceania, accounting for 58.3 percent. Figure 6.20 shows the distribution of the top 150 cities by continent. Among the bottom 150 cities, 80 are in Asia, accounting for 44.2 percent of the sample cities of the region; 44 are in Europe, accounting for 30.8 percent; 17 are in Latin America, accounting for 29.3 percent; eight are in Africa, accounting for 22.2 percent; one in Oceania, accounting for 8.3 percent; and none is in North America. A comparison of the top ten cities in three major continents in terms of the presence of multinational companies (see Table 6.16) indicates that Europe, North America and Asia are roughly at the same level.

Table 6.16 Top ten cities in North America, Asia and Europe in terms of the number of multinational companies

Regional rank	North America			Asia			Europe		
	City	Country	Global rank	City	Country	Global rank	City	Country	Global rank
1	New York	US	1	Hong Kong	China	3	London	UK	2
2	Los Angeles	US	15	Tokyo	Japan	5	Paris	France	4
3	Toronto	Canada	16	Singapore	Singapore	6	Moscow	Russia	9
4	Washington	US	19	Beijing	China	7	Milan	Italy	11
5	Chicago	US	26	Shanghai	China	8	Madrid	Spain	12
6	San Francisco	US	38	Taipei	China	17	Frankfurt	Germany	13
7	Atlanta	US	41	Seoul	South Korea	18	Brussels	Belgium	14
8	Miami	US	52	Bangkok	Thailand	21	Warsaw	Poland	19
9	Dallas	US	53	Mumbai	India	24	Dublin	Ireland	23
10	Boston	US	57	Kuala Lumpur	Malaysia	28	Amsterdam	Netherlands	27

PRICE ADVANTAGE: CITIES IN DEVELOPING COUNTRIES HAVE DISTINCT ADVANTAGES

Price and cost are important aspects of a city's competitiveness and the ratio of nominal exchange rate to purchasing power parity (PPP) exchange rate shows price and cost advantages. The ratio of nominal exchange rate to PPP exchange rate could reflect the actual price level of a country. If the ratio is smaller than 1, it indicates that the actual price level is higher than the nominal price level; if it is larger than 1, the actual price level is lower than the nominal price level. However, the ratio of nominal exchange rate to PPP exchange rate is not calculated on the basis of cities, but on the basis of countries. That is, in each country, there is only one ratio of nominal exchange rate to PPP exchange rate. With regard to the 500 sample cities, the ratios of Northern Europe, Central Europe, Western Europe, Japan, Kuwait and the United States are smaller than 1, indicating that actual price levels in these countries are higher than nominal price levels, which poses a disadvantage. The ratio of Australia is 1, indicating that its actual price level is the same as its nominal price level. For the remaining countries, their actual price levels are lower than their nominal price levels, creating considerable price advantages. Notably, Switzerland, Kuwait, Iceland, Norway and Sweden have the most disadvantages and Myanmar, Zimbabwe, Ethiopia, Cambodia and Zaire have the most advantages in actual price level. Among the BRICs, China and India have more advantages than Russia and Brazil.

NOTES

1. OECD (2006), 'OECD territorial reviews: competitive cities in the global economy', www.oecd.org.
2. BRICs are four countries: Brazil, Russia, India and China.

7. Which factors decide global urban competitiveness?

Based on the measurement and comparison of the comprehensive competitiveness of the 500 sample cities, we conducted an in-depth analysis of 150 major cities. We analyzed why some cities are more competitive while others are less competitive. To gain insight into the composition and root of the cities' competitiveness, we designed an index system, which includes 103 level-III indices, 49 level-II indices and seven level-I indices. In this book, only seven level-I indices, that is, enterprise, industrial structure, human resource, hard environment, soft environment, living environment, and global connectivity of the 150 major cities are compared to explain the levels of the comprehensive competitiveness of the cities (see Table 7.1). The other indices are available on the following web address: www.gucp.org.

Specifically, Seattle has the highest score for the index of enterprise; Tokyo ranks no. 1 in terms of industrial structure and infrastructures; Paris tops other cities in terms of human resource and living environment; New York ranks no. 1 for its global connectivity, and no. 2 for its industrial structure and hard environment, and is among top 20 in terms of many other indices. Further observation indicates that cities with leading comprehensive competitiveness tend to have high scores in each of the aspects, and do not have any distinct disadvantages in any of the aspects. Some cities have high ranks in some of the indices, but are restricted by other aspects. Therefore, their comprehensive competitiveness ranks remain low. Obviously, in order to improve their comprehensive competitiveness, cities should focus on balanced development and leverage their competitive advantages.

ENTERPRISE QUALITY: SEATTLE RANKS NO. 1

The wealth and value of any city are created by enterprises. How much wealth is created depends on the environment that the city provides, as well as the quality of the enterprises. The quality or competitiveness of enterprises can be seen from a number of aspects, namely, the foundation, operation and management of businesses. It includes six sub-indices, including corporate culture, corporate system, corporate governance, business operation, branding and business performance. Figure 7.1 shows the enterprise quality of cities worldwide. According to the score, the cities are divided into five classes. Figure 7.2 shows the top 20 cities worldwide in terms of enterprise quality. The two figures indicate that, worldwide, most of the high-ranking cities are in developed countries in North America, Western Europe, Northern Europe and Australia. In addition, Japanese enterprises are highly competitive, too. In Eastern Europe, Asia (other than Japan), and Latin America, a few cities in China, India and Brazil have competitive enterprises, while most others have low ranks. In Africa, most cities have low ranks. Specifically, on the top 20 list, Seattle, Washington and

Table 7.1 Ranks of 150 cities by Level-I indices

City	Z1 Scores of Enterprise	Ranking of Enterprise	Z2 Scores of Industry Structure	Ranking of Industry Structure	Z3 Scores of Human Resources	Ranking of Human Resources	Z4 Scores of Hard Environment	Ranking of Hard Environment	Z5 Scores of Soft Environment	Ranking of Soft Environment	Z6 Scores of Living Environment	Ranking of Living Environment	Z7 Global Connectivity	Ranking of Global Connectivity
Seattle	1	1	.598	35	.782	38	.814	10	.909	9	.799	100	.642	23
Washington	.962	2	.663	14	.843	8	.834	7	.869	26	.864	24	.63	26
San Francisco	.94	4	.627	25	.766	54	.873	4	.924	5	.826	68	.601	30
Zurich	.94	3	.698	9	.732	87	.649	81	.903	13	.827	67	.456	83
Berlin	.939	5	.519	73	.755	64	.71	50	.725	84	.874	21	.584	33
Philadelphia	.929	6	.529	63	.773	45	.823	8	.871	25	.791	109	.684	16
Dallas	.927	7	.595	37	.79	32	.787	17	.854	31	.822	72	.448	92
The Hague	.925	8	.444	111	.835	10	.688	58	.774	65	.83	60	.455	84
Boston	.923	10	.622	26	.789	34	.878	3	.926	4	.773	122	.713	10
San Jose	.923	9	.526	67	.811	17	.819	9	.894	15	.836	53	.539	49
Helsinki	.918	11	.631	24	.834	12	.669	67	.891	17	.796	103	.552	38
Tokyo	.914	12	1	1	.954	2	1	1	.809	55	.808	89	.741	8
Houston	.913	13	.607	30	.739	81	.8	13	.853	32	.839	51	.595	32
Osaka	.906	14	.603	32	.796	25	.782	19	.77	67	.762	129	.548	41
Munich	.902	15	.618	27	.806	21	.644	84	.816	52	.888	15	.545	45
Kyoto	.895	16	.54	57	.771	48	.779	20	.775	64	.855	32	.36	124
San Diego	.894	17	.521	70	.746	72	.787	18	.834	42	.797	102	.513	58
Minneapolis	.894	18	.542	56	.768	52	.764	24	.856	29	.76	130	.448	93
Los Angeles	.893	19	.597	36	.743	76	.809	12	.922	6	.841	49	.838	3
Copenhagen	.893	20	.611	28	.758	63	.652	78	.906	11	.795	104	.48	70
Seoul	.889	21	.654	16	.837	9	.726	42	.8	56	.786	112	.488	62
St Louis	.888	22	.487	90	.716	103	.789	16	.815	53	.784	116	.4	111
Detroit	.885	23	.517	74	.68	127	.724	44	.832	45	.71	141	.543	46
San Antonio	.882	24	.474	100	.703	113	.749	33	.818	50	.845	45	.473	72
Paris	.88	26	.809	4	1	1	.752	31	.838	40	1	1	.804	4
Charlotte	.88	25	.554	48	.742	78	.768	22	.825	47	.827	66	.495	60
New York	.877	27	.971	2	.775	44	.968	2	.906	12	.774	121	1	1
Geneva	.875	28	.588	41	.782	39	.681	63	.91	8	.912	12	.478	71
Chicago	.871	29	.736	6	.763	57	.862	5	.945	2	.773	123	.723	9
Kawasaki	.868	30	.409	119	.735	85	.791	15	.768	69	.847	42	.495	61
Austin	.867	31	.528	66	.791	31	.779	21	.873	24	.855	31	.417	104
Gothenburg	.863	32	.491	88	.759	61	.602	100	.793	60	.756	132	.484	67
Memphis	.858	33	.475	98	.717	101	.75	32	.841	38	.832	57	.366	121
Cincinnati	.848	34	.52	72	.718	96	.756	27	.831	46	.799	98	.411	107
Melbourne	.845	36	.637	23	.795	26	.683	61	.878	21	.958	4	.599	31
Mumbai	.845	35	.656	15	.64	145	.581	103	.555	139	.648	148	.471	74
Baltimore	.844	37	.494	86	.71	109	.757	26	.842	37	.804	93	.655	21

Table 7.1 (continued)

City	Z1 Scores of Enterprise	Ranking of Enterprise	Z2 Scores of Industry Structure	Ranking of Industry Structure	Z3 Scores of Human Resources	Ranking of Human Resources	Z4 Scores of Hard Environment	Ranking of Hard Environment	Z5 Scores of Soft Environment	Ranking of Soft Environment	Z6 Scores of Living Environment	Ranking of Living Environment	Z7 Global Connectivity	Ranking of Global Connectivity
Madrid	.843	38	.684	12	.832	13	.699	53	.754	71	.885	17	.629	27
Toronto	.831	39	.707	7	.787	35	.716	46	.873	23	.828	64	.618	29
Hamburg	.829	40	.525	68	.72	94	.659	76	.849	35	.864	25	.684	15
Stockholm	.823	41	.653	17	.82	15	.711	49	.882	18	.816	82	.563	36
Indianapolis	.822	42	.54	58	.739	80	.752	30	.84	39	.817	77	.443	95
Milwaukee	.813	44	.507	77	.745	73	.716	47	.832	44	.764	127	.417	103
Bangalore	.813	43	.497	81	.636	147	.549	119	.596	122	.689	143	.327	135
Amsterdam	.808	45	.645	20	.737	83	.747	36	.743	79	.722	138	.771	6
Sydney	.806	46	.669	13	.777	43	.71	51	.879	19	.975	2	.657	20
Brussels	.802	47	.651	18	.726	90	.579	104	.798	57	.903	13	.647	22
Calgary	.801	48	.47	102	.742	77	.646	83	.753	72	.794	105	.436	99
Kobe	.799	49	.487	91	.745	74	.738	37	.733	82	.811	85	.487	63
Pittsburgh	.797	50	.59	40	.717	99	.752	29	.82	49	.788	111	.45	90
Columbus	.796	51	.531	62	.75	67	.747	35	.798	58	.775	119	.454	85
Turin	.795	52	.488	89	.71	108	.558	113	.633	109	.828	65	.376	118
London	.794	53	.958	3	.81	18	.862	6	.874	22	.858	30	.973	2
Frankfurt	.794	54	.601	34	.8	23	.664	70	.851	34	.883	19	.64	24
Cleveland	.794	55	.511	76	.677	130	.748	34	.816	51	.817	78	.468	77
Rio de Janeiro	.79	56	.5	80	.809	19	.522	140	.502	147	.78	117	.484	66
Las Vegas	.784	57	.466	103	.646	144	.701	52	.9	14	.886	16	.486	64
Hong Kong	.783	58	.777	5	.736	84	.698	54	.943	3	.793	106	.681	17
Atlanta	.781	59	.689	11	.706	112	.812	11	.851	33	.854	35	.539	50
Shenzhen	.781	60	.392	124	.694	120	.624	91	.661	103	.806	91	.527	53
Athens	.768	62	.577	43	.773	46	.529	134	.737	81	.929	9	.663	19
Montreal	.768	61	.496	84	.793	27	.672	64	.786	62	.8	97	.52	54
Oslo	.767	63	.481	92	.717	102	.662	73	.857	28	.71	140	.548	42
Lyon	.766	64	.537	60	.79	33	.606	98	.764	70	.86	28	.45	91
Portland	.764	65	.505	78	.765	56	.758	25	.783	63	.817	79	.539	48
Nuremberg	.759	66	.46	106	.782	40	.596	102	.796	59	.826	69	.421	102
Singapore	.752	67	.694	10	.881	4	.719	45	1	1	.86	29	.798	5
Johannesburg	.747	68	.602	33	.676	132	.564	109	.724	86	.821	75	.381	116
Milan	.738	69	.645	21	.804	22	.621	93	.703	93	.931	8	.514	57
Edmonton	.735	70	.434	116	.724	93	.651	80	.769	68	.772	124	.335	133
Denver	.733	71	.586	42	.761	60	.755	28	.855	30	.847	41	.438	96
Dublin	.731	72	.65	19	.797	24	.629	89	.879	20	.851	37	.697	11
Ottawa	.73	73	.477	97	.769	51	.732	39	.845	36	.803	94	.469	75
Vienna	.726	74	.604	31	.779	42	.695	55	.834	43	.941	7	.545	44

Table 7.1 (continued)

City	Z1 Scores of Enterprise	Ranking of Enterprise	Z2 Scores of Industry Structure	Ranking of Industry Structure	Z3 Scores of Human Resources	Ranking of Human Resources	Z4 Scores of Hard Environment	Ranking of Hard Environment	Z5 Scores of Soft Environment	Ranking of Soft Environment	Z6 Scores of Living Environment	Ranking of Living Environment	Z7 Global Connectivity	Ranking of Global Connectivity
Nagoya	.725	75	.545	51	.75	68	.731	40	.751	74	.83	61	.515	56
Vancouver	.719	76	.546	50	.754	65	.642	85	.823	48	.798	101	.635	25
Winnipeg	.715	77	.459	107	.714	104	.664	71	.787	61	.769	125	.344	129
Auckland	.714	79	.531	61	.792	28	.612	97	.893	16	.918	10	.558	37
Barcelona	.714	80	.497	82	.792	30	.651	79	.771	66	.915	11	.669	18
Taipei	.714	78	.703	8	.726	91	.671	66	.699	94	.846	44	.424	101
Jakarta	.713	81	.545	52	.717	100	.556	115	.532	144	.559	150	.451	88
Prague	.708	82	.544	53	.87	5	.534	130	.629	113	.808	88	.46	82
Miami	.706	83	.563	45	.688	122	.727	41	.868	27	.843	46	.693	12
Istanbul	.701	84	.496	85	.685	123	.525	136	.632	110	.763	128	.518	55
Tel Aviv	.696	85	.544	55	.718	97	.642	87	.667	99	.755	133	.414	105
Phoenix	.693	86	.493	87	.73	88	.725	43	.908	10	.854	34	.438	97
Liverpool	.69	87	.437	115	.825	14	.635	88	.741	80	.785	115	.625	28
Ulsan	.684	88	.324	145	.634	148	.663	72	.664	101	.815	83	.362	123
Shanghai	.683	89	.608	29	.785	36	.714	48	.718	87	.842	48	.686	14
Rotterdam	.681	90	.477	96	.727	89	.685	59	.748	77	.863	27	.757	7
Yokohama	.679	91	.442	113	.762	59	.792	14	.75	76	.834	55	.533	51
Brisbane	.672	92	.472	101	.77	50	.665	69	.75	75	.951	5	.542	47
Budapest	.669	93	.523	69	.792	29	.553	117	.646	107	.876	20	.464	81
Delhi	.663	94	.505	79	.693	121	.564	111	.54	143	.586	149	.321	138
Glasgow	.661	95	.465	104	.763	58	.672	65	.743	78	.87	22	.546	43
Lisbon	.649	96	.529	64	.737	82	.619	94	.728	83	.966	3	.567	34
Rome	.646	97	.591	39	.758	62	.654	77	.707	92	.948	6	.564	35
Sendai	.634	98	.48	93	.743	75	.681	62	.713	91	.847	43	.452	86
Wellington	.631	99	.48	94	.782	37	.628	90	.912	7	.892	14	.55	40
Sacramento	.627	100	.512	75	.694	118	.733	38	.809	54	.884	18	.411	108
St Petersburg	.627	101	.453	109	.766	55	.469	149	.519	146	.694	142	.425	100
Calcutta	.624	102	.39	126	.622	149	.571	108	.48	149	.662	145	.37	120
Buenos Aires	.623	103	.544	54	.733	86	.661	75	.646	105	.801	95	.445	94
Shenyang	.622	104	.36	137	.683	126	.53	133	.572	133	.682	144	.303	141
Nashville	.62	105	.464	105	.747	71	.766	23	.836	41	.768	126	.366	122
Fuzhou	.615	106	.345	140	.684	125	.538	127	.572	132	.834	56	.359	125
Mexico City	.606	107	.591	38	.855	7	.683	60	.67	98	.821	74	.404	110
Wuhan	.604	108	.364	133	.74	79	.564	110	.571	135	.829	62	.34	132
Guangzhou	.601	109	.439	114	.714	105	.599	101	.608	119	.832	58	.467	80
Macao	.599	110	.414	118	.618	150	.538	126	.753	73	.84	50	.323	136
Nanjing	.598	111	.364	131	.703	115	.559	112	.608	118	.825	71	.341	131

Table 7.1 (continued)

City	Z1 Scores of Enterprise	Ranking of Enterprise	Z2 Scores of Industry Structure	Ranking of Industry Structure	Z3 Scores of Human Resources	Ranking of Human Resources	Z4 Scores of Hard Environment	Ranking of Hard Environment	Z5 Scores of Soft Environment	Ranking of Soft Environment	Z6 Scores of Living Environment	Ranking of Living Environment	Z7 Global Connectivity	Ranking of Global Connectivity
Bussan	.597	112	.405	122	.684	124	.615	96	.715	88	.793	108	.497	59
Dubai	.593	113	.528	65	.703	114	.576	105	.681	96	.851	38	.69	13
Beijing	.592	114	.643	22	.813	16	.691	57	.666	100	.82	76	.482	69
Kuala Lumpur	.591	115	.449	110	.661	140	.661	74	.656	104	.83	59	.486	65
Monterrey	.588	116	.455	108	.768	53	.545	121	.573	130	.822	73	.392	112
Moscow	.58	117	.569	44	.834	11	.647	82	.524	145	.661	146	.528	52
Sapporo	.574	118	.497	83	.749	69	.666	68	.715	90	.843	47	.372	119
Sao Paulo	.572	119	.563	46	.885	3	.486	148	.501	148	.81	86	.356	126
Warsaw	.571	120	.553	49	.808	20	.509	145	.584	128	.853	36	.412	106
Manila	.569	121	.433	117	.726	92	.524	137	.584	129	.724	137	.452	87
Santiago	.561	122	.539	59	.782	41	.694	56	.724	85	.816	81	.406	109
Hsinchu City	.559	123	.364	132	.667	136	.617	95	.691	95	.816	80	.387	113
Wenzhou	.556	124	.306	149	.668	134	.524	138	.586	127	.8	96	.322	137
Bangkok	.55	125	.557	47	.771	49	.642	86	.602	121	.743	134	.469	76
Bogota	.549	126	.521	71	.856	6	.514	143	.587	126	.648	147	.296	143
Hefei	.541	127	.35	139	.71	110	.507	146	.587	125	.828	63	.276	148
Ningbo	.539	128	.324	146	.678	129	.546	120	.604	120	.785	114	.468	79
Panama City	.538	129	.391	125	.708	111	.531	132	.646	106	.849	39	.385	115
Kaohsiung City	.532	131	.384	127	.676	131	.604	99	.631	112	.863	26	.55	39
Dongguan	.532	130	.357	138	.649	143	.543	123	.623	116	.713	139	.437	98
Xiamen	.529	132	.31	147	.666	137	.535	128	.549	142	.855	33	.343	130
Naples	.511	133	.442	112	.752	66	.521	141	.595	123	.826	70	.451	89
Ho Chi Minh City	.51	134	.324	144	.661	139	.538	125	.551	141	.789	110	.381	117
Cape Town	.508	135	.478	95	.719	95	.572	107	.631	111	.864	23	.472	73
Cairo	.492	136	.474	99	.639	146	.573	106	.567	137	.757	131	.385	114
Chengdu	.492	137	.383	128	.711	106	.534	129	.609	117	.835	54	.292	144
Nanchang	.492	138	.337	143	.667	135	.517	142	.589	124	.848	40	.301	142
Jerusalem	.491	139	.408	121	.65	142	.621	92	.663	102	.786	113	.331	134
Chongqing	.485	140	.342	142	.661	138	.549	118	.572	131	.775	120	.292	145
Qingdao	.478	141	.345	141	.679	128	.522	139	.68	97	.804	92	.484	68
Dalian	.475	142	.361	136	.701	117	.525	135	.626	114	.812	84	.345	128
Puebla	.457	144	.396	123	.772	47	.554	116	.572	134	.78	118	.273	149
Guadalajara	.457	143	.409	120	.694	119	.54	124	.553	140	.809	87	.308	140
Tianjin	.426	145	.362	134	.718	98	.558	114	.571	136	.741	135	.468	78
Hangzhou	.414	146	.368	130	.711	107	.545	122	.624	115	.808	90	.354	127

Table 7.1 (continued)

City	Z1 Scores of Enterprise	Ranking of Enterprise	Z2 Scores of Industry Structure	Ranking of Industry Structure	Z3 Scores of Human Resources	Ranking of Human Resources	Z4 Scores of Hard Environment	Ranking of Hard Environment	Z5 Scores of Soft Environment	Ranking of Soft Environment	Z6 Scores of Living Environment	Ranking of Living Environment	Z7 Global Connectivity	Ranking of Global Connectivity
Yangzhou	.413	147	.31	148	.658	141	.504	147	.641	108	.799	99	.235	150
Suzhou	.403	148	.302	150	.673	133	.532	131	.715	89	.838	52	.286	147
Xi'an	.358	149	.361	135	.702	116	.512	144	.557	138	.793	107	.318	139
Minsk	.337	150	.369	129	.747	70	.389	150	.432	150	.735	136	.288	146



- 0.337–0.470
- 0.471–0.602
- 0.603–0.735
- 0.736–0.867
- 0.868–1.000

Figure 7.1 Competitiveness ranks of enterprises worldwide (unit: index value; 1.000 is the most competitive)

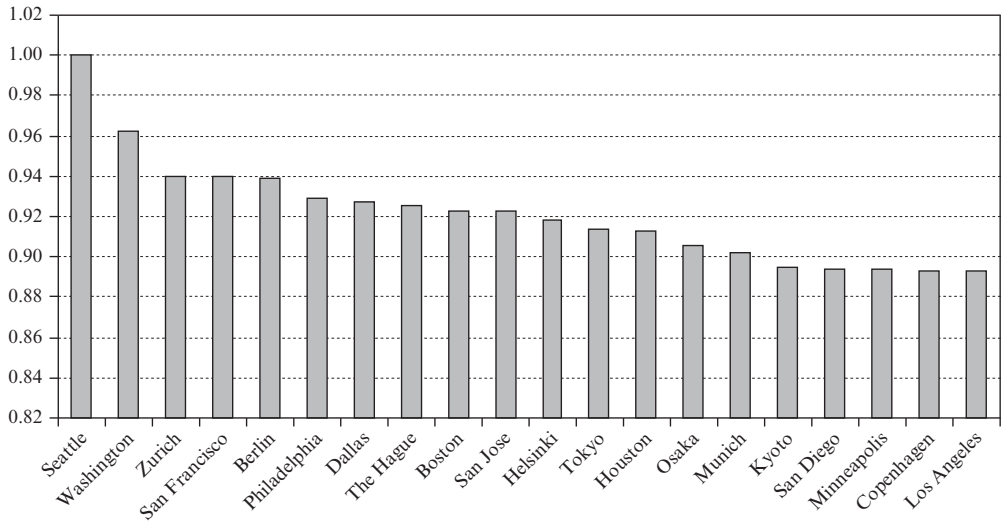


Figure 7.2 Top 20 cities in terms of enterprise quality

Zurich rank the top three, followed by San Francisco, Berlin, Philadelphia, Dallas, Hague, Boston and San Jose, which rank from no. 4 to no. 10. Tokyo ranks no. 12. In terms of specific countries, the United States has 11 entries in the top 20, including the no. 1 and no. 2 cities, followed by Japan, whose Tokyo, Osaka and Kyoto rank no. 12, no. 14 and no. 16 respectively. Two of the Northern European cities, that is, Helsinki and Copenhagen, are on the list. Other entries include Berlin, Munich, Zurich and The Hague.

INDUSTRY STRUCTURE COMPETITIVENESS: TOKYO RANKS NO. 1

Industry structure competitiveness is the overall developing level of city's industries and the standard and professional level of the development. A city's main industries are the manufacturing and service industries. Since the financial and high-tech industries are also very important in the development of the city, we separate them out from the two main industries and then form four second class indices of manufacturing, services, finance and high-tech.

Figure 7.3 shows the competitiveness of industry structures of cities worldwide. It indicates that, while most cities with competitive industrial structures are in North America, particularly the United States, and the bulk part of Europe, cities in Asia, Africa and Latin America tend to have weak industry infrastructures. A further observation reveals that the distribution is not definite. Substantial gaps exist in competitiveness of industrial structures among North American and European cities. In the United States, and some other industrialized countries, cities with different sizes and economic development levels vary in terms of the competitiveness of industry structures. This, on the one hand, might be the result of insufficient data for the evaluation model. On the other hand,

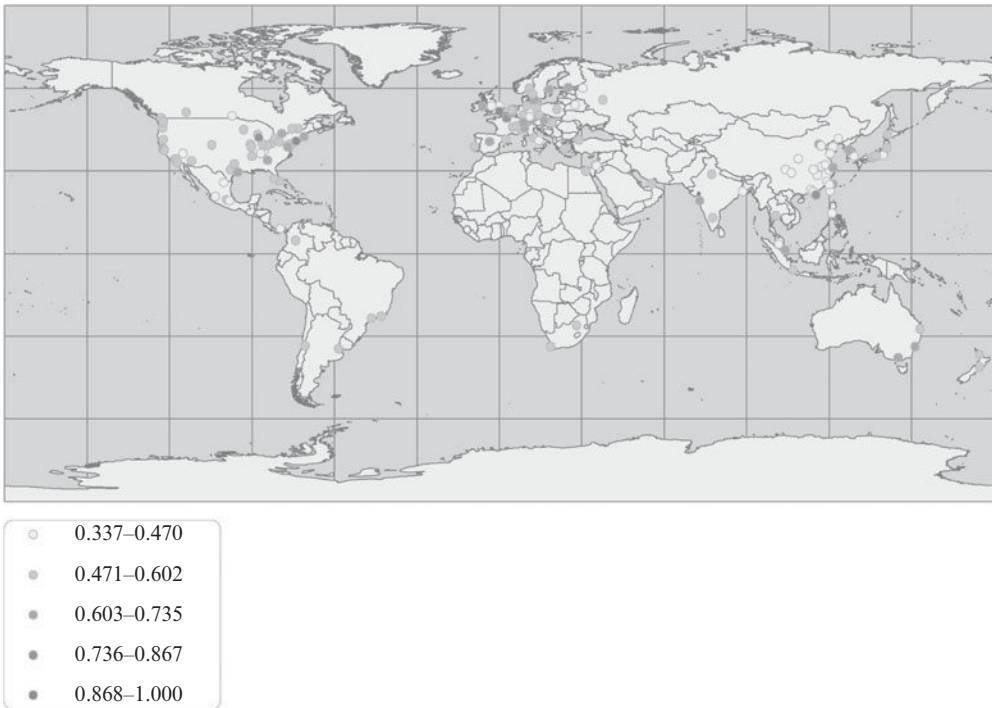


Figure 7.3 Global competitiveness of the industrial city comparison (unit: index value; 1.000 is the most competitive)

it indicates that the industry structure of a city is affected by its natural resources and other factors. Figure 7.4 shows the top 20 cities with the strongest industry structure competitiveness based on quantitative analysis. According to Figure 7.4, cities on the first level, Tokyo, New York and London, have obvious competitive advantages. Paris, Hong Kong, Chicago and Toronto with similar competitiveness, belong to the second level. The others with their scores between 0.6 and 0.7 are on the third level. The service industry in these cities is well developed and most of these cities are capital or economic centers. Considering countries in which these cities are located, there are four in US while 16 other cities belong to different countries or regions. This suggests that US still has strong industrial competitiveness, but is not dominant. Top 20 cities with the strongest industry structure competitiveness are mostly the cities from developed countries. These cities are leading the adjustment and promotion of global industry structure.

HUMAN RESOURCES COMPETITIVENESS: PARIS RANKS NO. 1

Human resource is a valuable resource hotly pursued in the time of knowledge economy. In the Cobb-Douglas regional economic development model, human resource and physical capital are two major independent production factors. Empirical analysis of many economists indicates that the output elasticity of human capital is 0.75, three

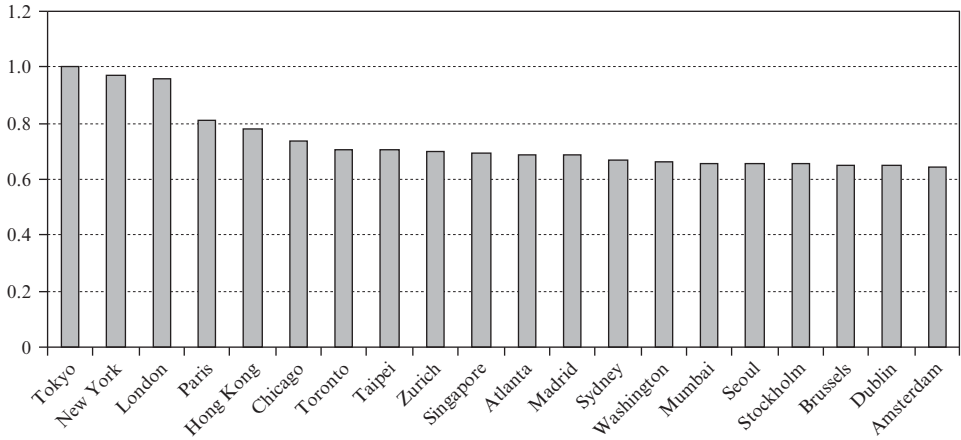


Figure 7.4 The scores of the top 20 cities with the strongest industry structure competitiveness

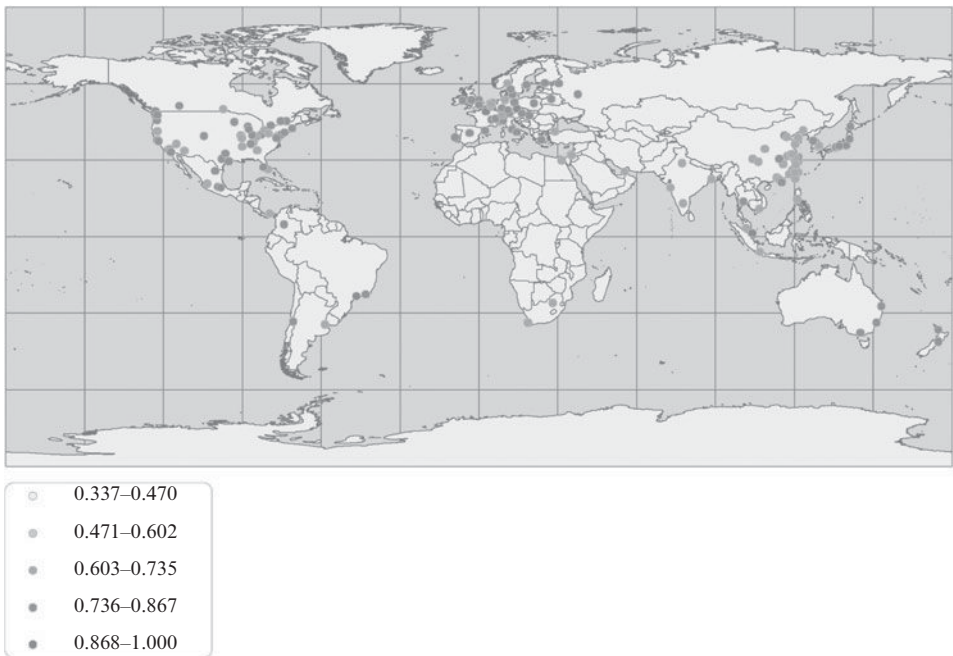


Figure 7.5 HR competitiveness ranks of cities worldwide (unit: index value; 1.000 is the most competitive)

times physical capital. Obviously, human resource is critical to the competitiveness, as well as the development and modernization level of a city. In this study, human resource of a city includes four aspects: health of the citizens, education of the citizens, availability of workforce and professionals of the city. Figure 7.5 shows the human resource

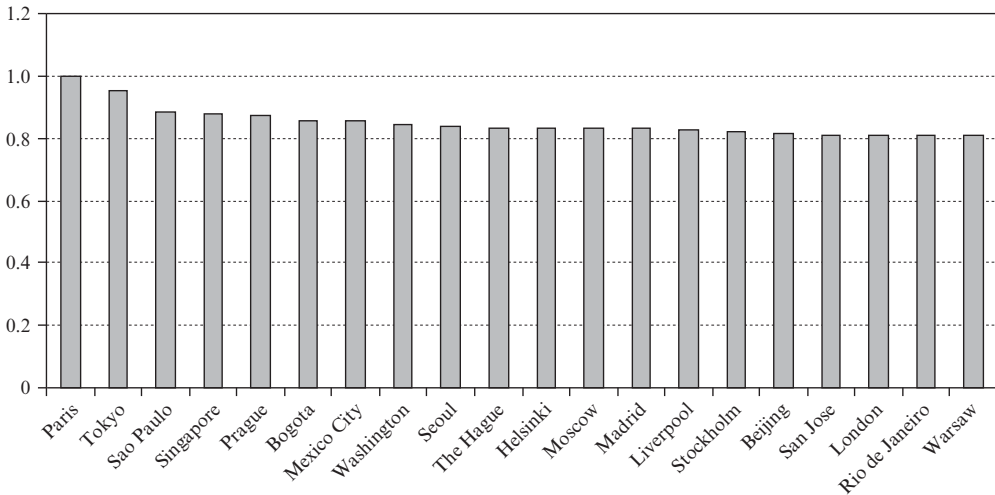


Figure 7.6 Scores of the top 20 cities with the strongest human resource competitiveness

competitiveness of cities worldwide. In this aspect, high-ranking cities are seen both in developed regions, including North America, Europe and Australia, and in developing regions, such as Mexico and Brazil in Latin America, and China and India in Asia. The reason lies in the fact that, while the developed regions have rich reserves of professionals, many of the developing countries such as China and India have rich work force reserves and human resource potential, thanks to their huge population.

Figure 7.6 shows the top 20 cities with the strongest human resource competitiveness. Paris is very rich in human resources, ranked the first. Tokyo is ranked the second. Among the top 20 cities, many cities are from developing countries, including Sao Paulo, Prague, Bogota, Mexico City, Beijing, Rio de Janeiro and Warsaw. Although their development levels are not as high as the cities from developed countries, they have high potential. These cities have been maintaining a high economic growth rate in recent years. Their general qualities of work are improving and they have rich and cheap human resources. Skilled workers from all over the country gather here. All of these give these cities strong human resource competitiveness. However, developed countries are lacking in human resources and the cost for skill is very high. Comparatively, rich and cheap human resource is an obvious advantage for cities of developing countries.

HARD ENVIRONMENT COMPETITIVENESS: TOKYO RANKS NO. 1

Hard environment competitiveness mainly means the cities' basic factors, financial markets, science and technology innovation facilities and achievements, as well as support to the development of the city by market scale. Basic factors are essential for the existence and development of a city. A developed finance market can provide rich and

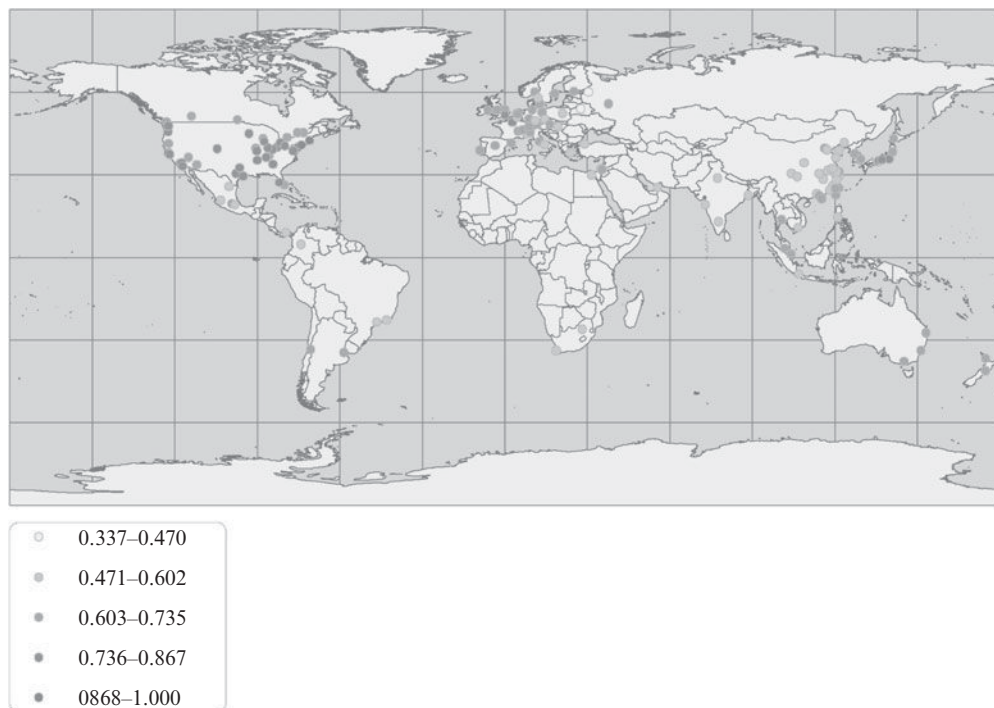


Figure 7.7 Global competitiveness of the city environment compared (unit: index value; 1.000 is the most competitive)

steady finance support to the development of the city. Innovation is the spirit of a city and the city's competitiveness. Only innovation can bring the city high value and benefits. The utilization of the science and technology resources, science and technology facilities, science and technology servicing system, innovation environment, innovation promoting policies and environmental quality comprise a city's innovation environment system. While providing businesses with a sound technical condition, the hard environment of a city turns out to be a powerful magnetic field to attract external production factors and high-tech enterprises. Figure 7.7 shows the hard environment of cities worldwide. With the exception of a few, most of the 150 sample cities have a sound hard environment. Particularly, cities in developed countries and regions in North America, Western Europe and Japan have the best hard environment. Figure 7.8 shows the top 20 cities with the strongest hard environment competitiveness. We can see from the figure that Seattle tops the 150 sample cities in terms of hard environment, followed by Washington and Zurich. High-tech cities as Seattle, San Jose, and San Diego are all ranked among the top 20. All of these suggest that in comparison, science and technological innovation facilities and innovation abilities are key to the enhancement of a city's hard environment competitiveness. Considering countries and regions these cities are located in, the USA has the most cities with the best hard environment. Japan has four cities among the top 20 due to its advantages in science and technological innovation. The other cities are mostly located in Europe.

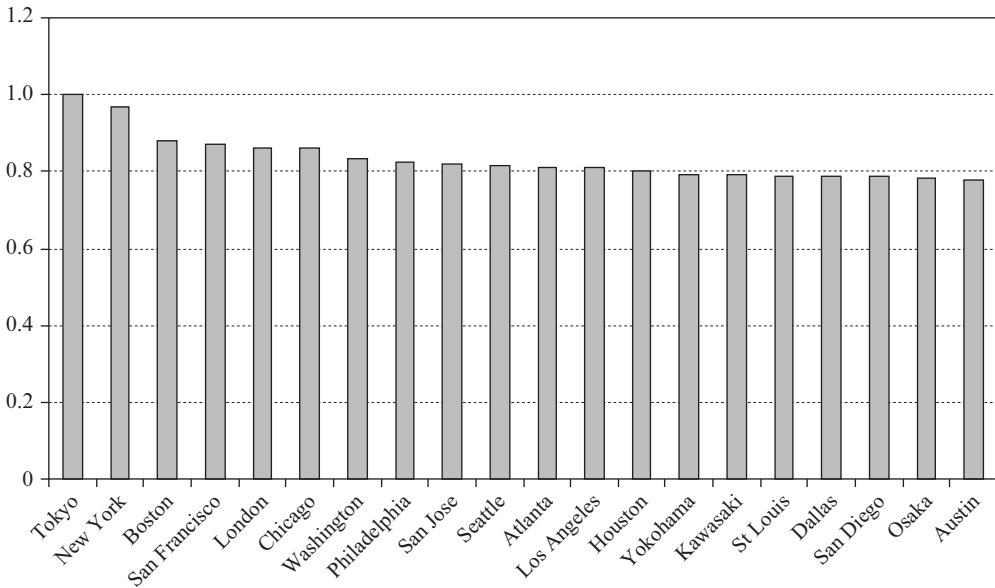


Figure 7.8 Top 20 cities in terms of hard environment competitiveness

SOFT ENVIRONMENT COMPETITIVENESS: SINGAPORE RANKS NO. 1

Soft environment of cities refers to the urban environment for enterprise operation and industrial development. Soft environment competitiveness of a city is an integral part of urban environment competitiveness, and is generally measured in terms of market environment, social management environment and public policy environment. Figure 7.9 shows the soft environment of cities worldwide. Like the case of hard environment, most sample cities are in the middle level, while those in the United States, Western Europe, Northern Europe, Japan and Australia have the highest ranks. Figure 7.10 shows the top 20 cities in terms of soft environment competitiveness, among which Singapore ranks first, and then Chicago and Hong Kong. Half of the top 20 cities are American cities. So it is clear that these cities enjoy great advantages in terms of soft environment. This can be accredited to their free economy, strong protection of the intellectual property, competitive and regulated market, and efficient social management.

LIVING ENVIRONMENT COMPETITIVENESS: PARIS RANKS NO. 1

The quality of urban living environment contributes to a city's competitiveness by attracting and cultivating talented individuals. High quality of living environment plays an important role in attracting and cultivating high-quality talent as well as the maximum

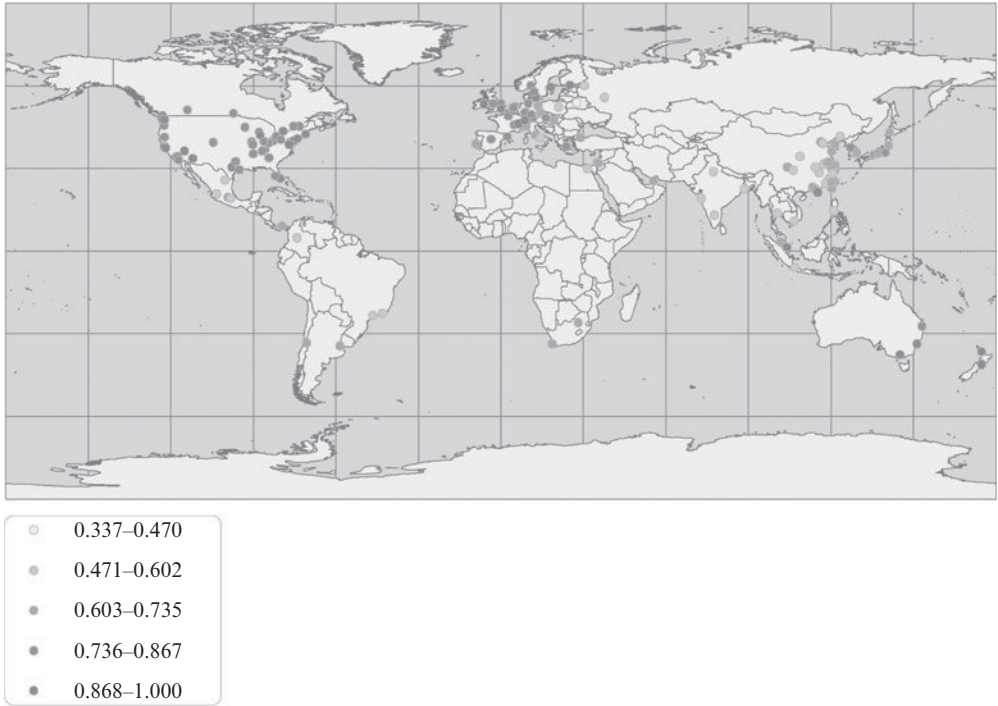


Figure 7.9 Soft environment competitiveness ranks of cities worldwide (unit: index value; 1.000 is the most competitive)

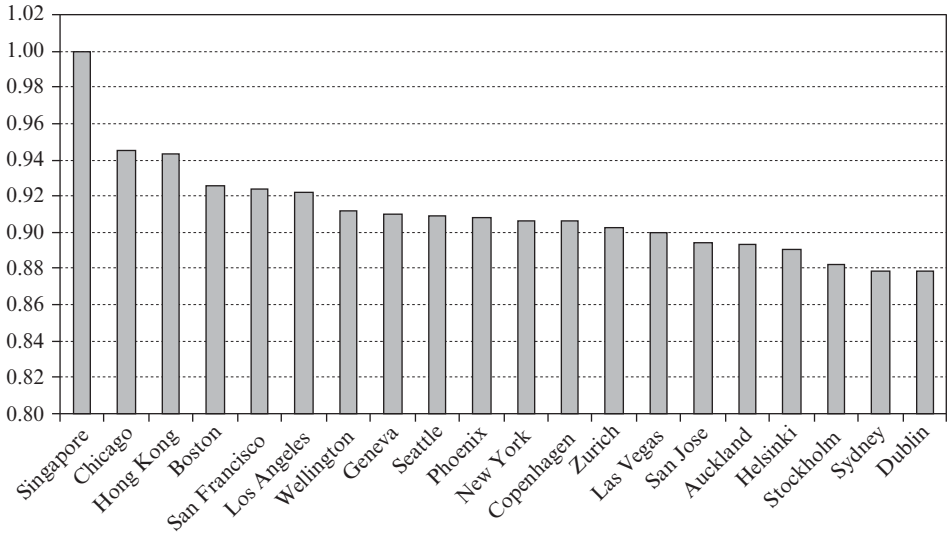


Figure 7.10 Scores of the top 20 cities in soft environment competitiveness

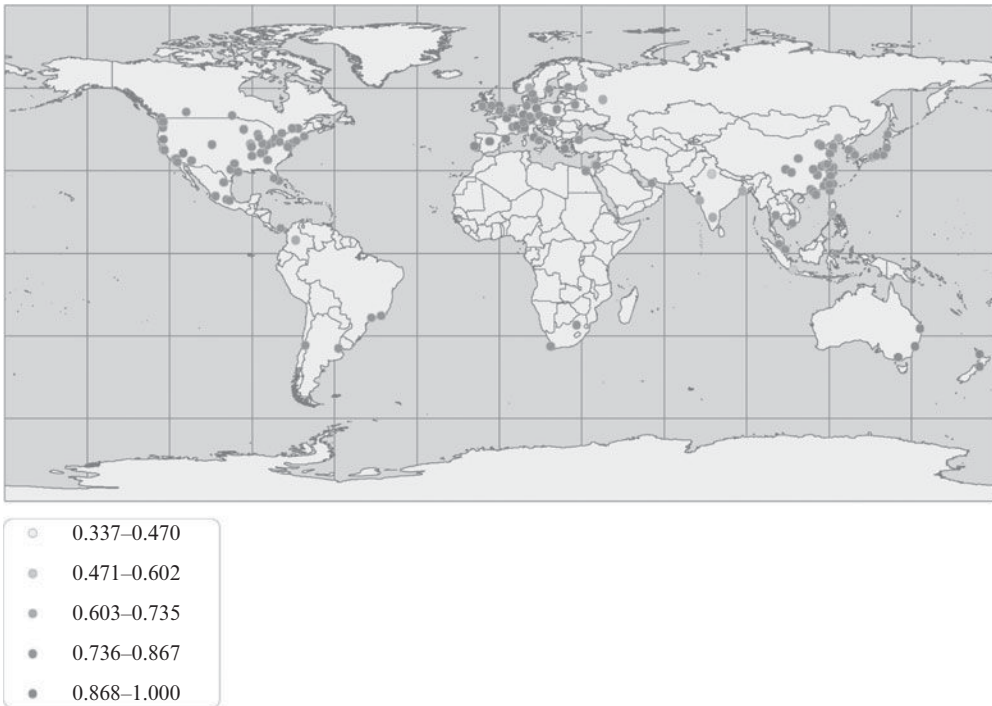


Figure 7.11 Living environment competitiveness ranks of cities worldwide (unit: index value; 1.000 is the most competitive)

application of their abilities. Living environment competitiveness is generally divided into natural environment, housing environment, shopping and dining environment, environment for leisure and entertainment, as well as the security environment. From Figure 7.11 and Figure 7.12, we can see that, worldwide, most of the sample cities have a good living environment. Among the top 20, Paris ranks no. 1, followed by Sydney, Lisbon, Brisbane, Rome and Vienna. By countries or regions, Australia has a high ranking with three entries in the top 20. Most of other high-ranking cities are in Europe, which has 13 entries including Paris. North America only has two entries, which are Las Vegas and Sacramento of the United States. Obviously, most of the high-ranking cities are those with proud cultural, historical or artistic traditions and such cities like Paris, Vienna, Rome, Athens and Budapest tend to focus on the improvement of local living environment.

COMPETITIVENESS IN TERMS OF GLOBAL CONNECTIVITY: NEW YORK RANKS NO. 1

Against the background of globalization, cities have become the subjects in global competition as the urban network is gradually formed worldwide. A city's economic, social and cultural development is gradually linked to, and merged with, the international economic, social and cultural development, and has become a crucial part of the

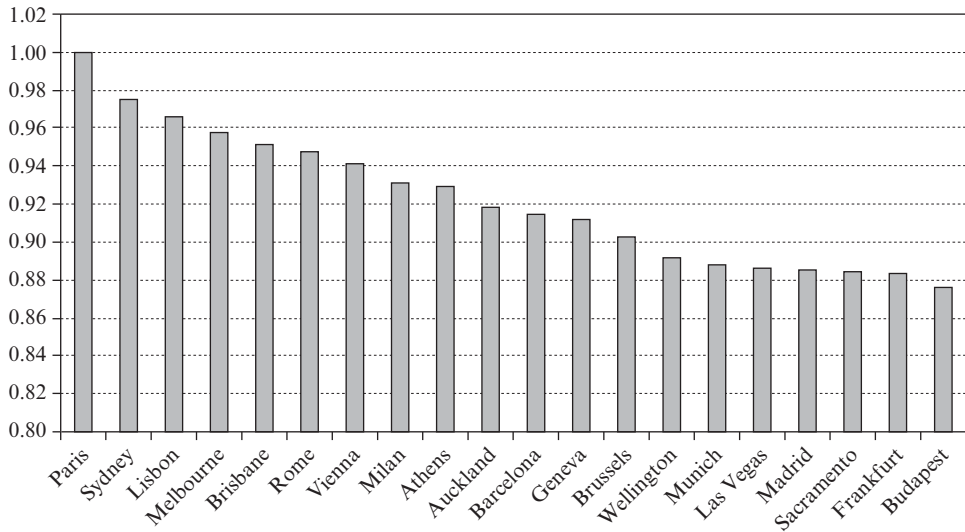


Figure 7.12 Top 20 cities in terms of living environment competitiveness

integrated international development system. On the other hand, cities in the global community contribute to the further development of economic globalization by the diffusion and spread effect of their economies. The global connectivity index is used to measure a city's participation in the global competition as well as its position among all cities worldwide, including locational capacity, transportation connectivity, resident connectivity, information linkage, and enterprise connectivity. Figure 7.13 and Figure 7.14 indicate that, worldwide, only a few cities in the United States, Western Europe and Northern Europe have strong global connectivity, and that most other cities are weak in this aspect. Among the top 20 cities, both New York and London are conveniently situated, enjoying a high level of diversity, with advanced information-based infrastructures. Headquarters of many renowned multinational companies are based in these two cities. They rank among the top in global connectivity. Los Angeles, Paris, Singapore and Amsterdam come the second. Tokyo ranks seventh, next to Amsterdam. What is noteworthy is that port cities enjoy advantages in terms of their location, which is favorable for contact and communication with the outside world. Most cities among the top 20 are port cities. In addition, Shanghai enjoys the same level of global connectivity as that of Hamburg, Philadelphia and Hong Kong. From the perspective of geographical distribution of the cities in the countries or regions, the majority of cities ranking high in global connectivity competitiveness are located in North America and Europe.

WHAT ARE THE KEY FACTORS OF GLOBAL URBAN COMPETITIVENESS

The comprehensive competitiveness of a city is the result of economic, political and cultural forces playing their roles together. In this study, we designed two index

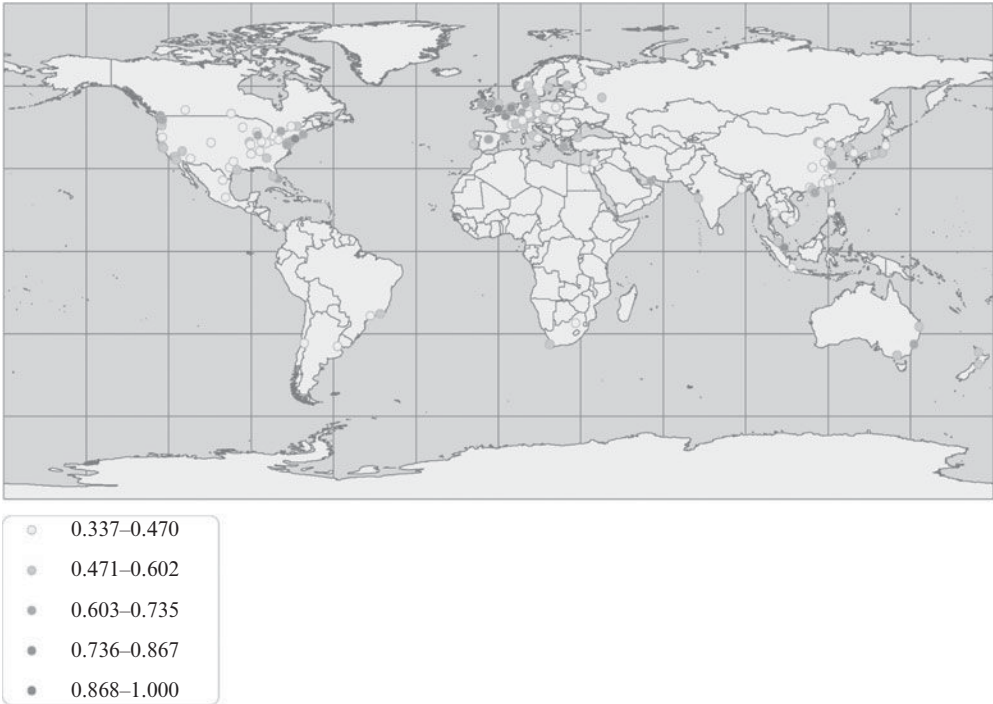


Figure 7.13 Comparison of global connectivity competitiveness of cities in the world (unit: index value; 1.000 is the most competitive)

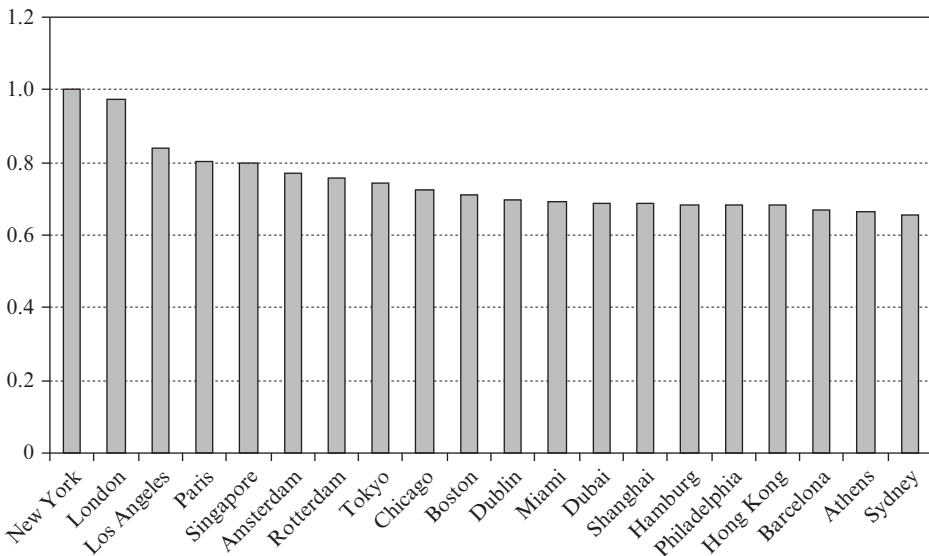


Figure 7.14 Scores of the top 20 cities in global connectivity competitiveness

systems for the competitiveness of the cities. One is called Global Comprehensive Competitiveness Index (GUCI) for cities, consisting of nine indices, including GDP and productivity. The other is a Subentry Competitiveness Index (SCI), consisting of seven major aspects: enterprise quality, industrial structure, human resource, hard environment, soft environment, living environment and global connectivity. After identifying the sample cities and collecting data, we calculated the Global Urban Competitiveness Index and used fuzzy curve analysis to analyze the GUCIs and SCIs of 150 cities in the world. Then we could identify the key factors that underpin the competitiveness of the cities from the seven major aspects in accordance with their respective contribution elasticity.

ENTERPRISE QUALITY COMPETITIVENESS: ENTERPRISE MANAGEMENT IS THE MOST IMPORTANT ASPECT

We analyzed the enterprise index from six aspects: corporate culture, corporate system, corporate governance, business management, business operation, branding and business performance (see Figure 7.15 for the result of analysis). Among the above six aspects, enterprise management is the most important, with a contribution elasticity coefficient of 0.6821. It indicates that the enterprise management level of enterprises is critical to the improvement of their competitiveness and the comprehensive competitiveness of the city itself.

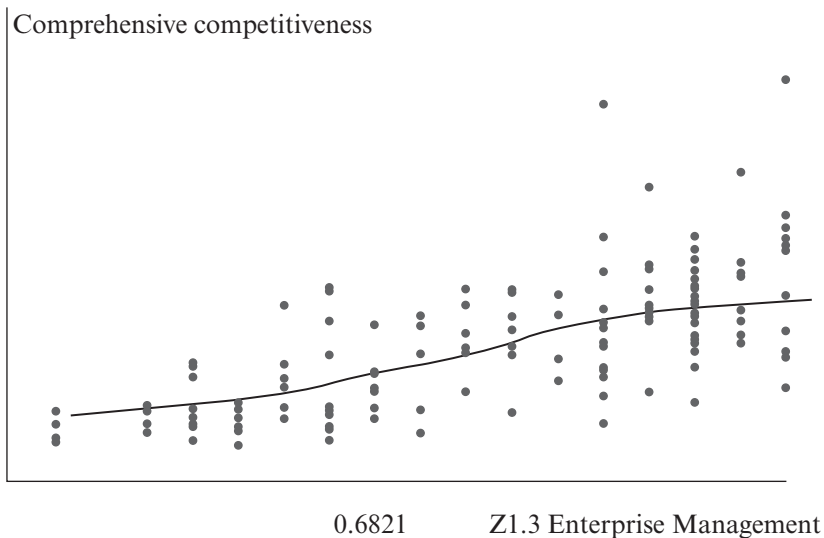


Figure 7.15 The relation between comprehensive competitiveness and enterprise management

INDUSTRIAL STRUCTURE: INDUSTRIAL AGGREGATION IS THE MOST IMPORTANT ASPECT

In view of the complexity of industrial structures of cities worldwide, and the fact that many data are not available, we adopted data about the presence of leading transnational companies by industries for the assessment of industrial structures of the cities. Based on long-standing studies, we find that industrial aggregation remains one of the key factors that underpin the comprehensive competitiveness of a city. Whether or not a city has an industrial cluster in place, how powerful the industrial cluster is and what industry it is could directly affect the industrial structure of the city, and its comprehensive competitiveness. In today's world, industrial aggregation is a distinct feature of the economies of many cities, regions and even countries. Like multinational companies, industrial clusters are one of the dominant powers of the world economy. They lead world economic growth and their respective industries. Worldwide, there's an increasingly clear trend of concentration of production factors, including human resources, capital, knowledge and technology toward particular regions and major cities in particular countries, for example, the United States, Western Europe and Japan. As a result, the manufacturing and high-tech industries are becoming increasingly concentrated geographically, and industrial clusters have become the backbones of cities in developed countries. Globalization and localization are the most important trends of world economic development. While flowing and proliferating across the world at unprecedented speed, production factors (information, technology, capital and human resource) are concentrating in particular regions. With focused development of particular industries, some regions are seeing the emergence of industrial clusters, which are creating competitive advantages through synergy, and driving the development of the cities and regions concerned. Amid the tide of globalization, cities are directly involved in global competition. Industrial clusters play an important role in integrating global resources, and enhancing the cities' influence and control over the world economy. The essence of industrial clusters is to integrate industrial development and regional economy with convenient transactions through labor division to create an effective production method. Industrial agglomeration is an effective approach to improve the industrial competitiveness and comprehensive competitiveness of cities.

HUMAN RESOURCE: EDUCATION DEVELOPMENT IS THE MOST IMPORTANT FACTOR

Human resource is one of the pillars of the long-term competitiveness of a city. Statistics and analysis show that education development has the closest connection with human resource competitiveness. As is shown in Figure 7.16, its elasticity coefficient is as high as 0.5679, indicating that education development could effectively drive the improvement of the urban competitiveness. The level of education development affects the quality of the workforce and the human resource development ability. Compared with workforce and talent status, education development is a more fundamental index. From a realistic point of view, super competitive cities such as New York, London and Tokyo tend to have well-established education infrastructures and the best education resources in their respective regions, and are usually home to world famous universities and research institutions.

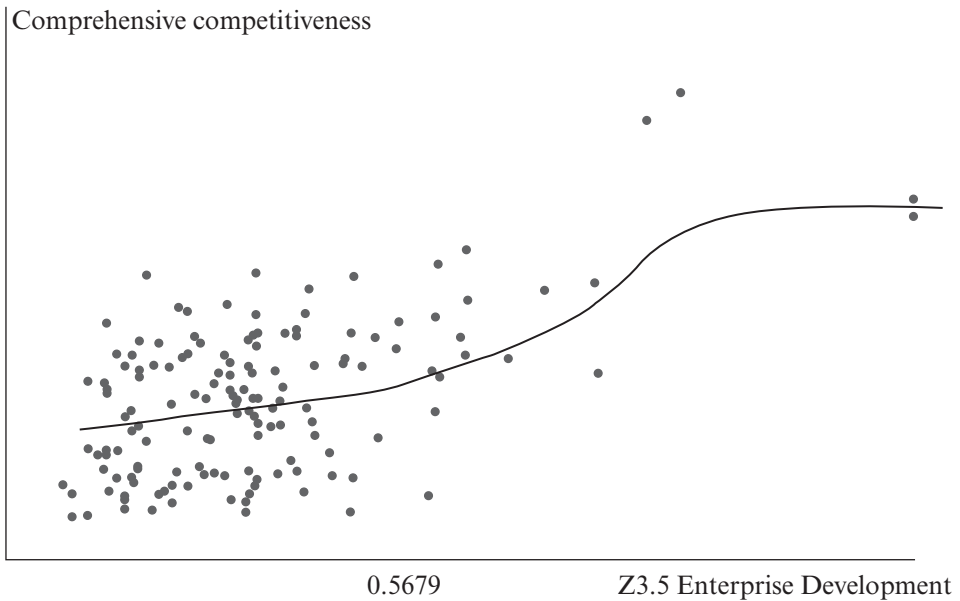


Figure 7.16 The relation between comprehensive competitiveness and education development

Unexceptionally, these cities attach great importance to education, and are committed to the improvement of their overall education level by increasing education input, developing vocational education, improving their education model, and advocating lifelong learning. Therefore, driving education development and improving education level is a critical approach for cities, particularly those in developing countries to seek continued development and cultivate long-term competitiveness.

HARD ENVIRONMENT: TECHNOLOGICAL INNOVATION IS THE MOST FUNDAMENTAL ASPECT

Hard environment refers to capacity of the basic factors, financial market, technical innovation infrastructures and results, and the market size of a city to support its development. The basic factors of a city are the foundation for its survival and development. A developed financial market is a place for the city to raise the money needed for its urban development and the growth of local enterprises. Technical innovation is the source of value and wealth of the city. Statistics and analysis indicate that technical innovation is closely related to the comprehensive competitiveness of a city. As is shown in Figure 7.17, the contribution elasticity coefficient of the index is as high as 0.8071. Obviously, the technical innovation capability could significantly improve the competitiveness of a city. As a result, technology is playing an increasingly important role in business development and value creation. The availability of rich technology resources, universities and research institutions, high input in basic research and encouraging research output have

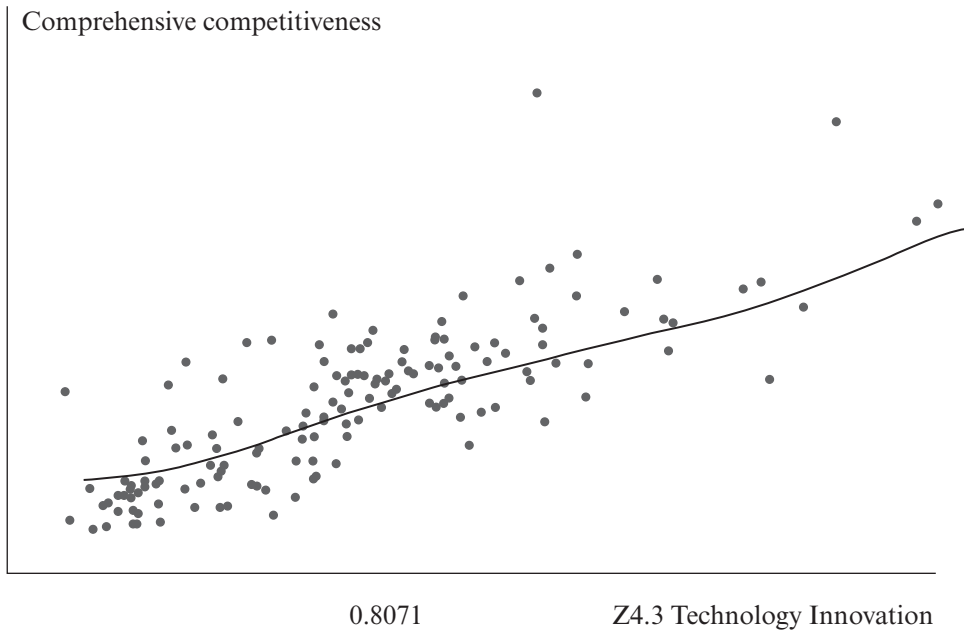


Figure 7.17 The relation between comprehensive competitiveness and technical innovation

provided the technical conditions necessary for the business development of cities, and attracted high-quality external production factors and high-tech enterprises. High-tech human resource is the core of technical innovation. The size and quality of innovative workforce of a city could shape the level of its technical innovation. A well performing high-tech service system could be the backing force for the improvement of a city's technical innovation ability. An imaginative and effective mechanism for commercialization of research results, and an efficient patent application and technology acquisition system could enhance the wealth-creating ability, as well as the comprehensive competitiveness, of a city. Statistics and analysis indicate that among the 150 cities, Seattle and San Diego have remarkable performance in the field of technical innovation, and they have leveraged this to drive business and industrial development. It is for this reason that they have ranked among the top 20 and have become the paradigms of driving the improvement of comprehensive competitiveness through technical innovation.

SOFT ENVIRONMENT: STRATEGY IS THE MOST IMPORTANT ELEMENT

The soft environment of a city includes its market environment, social management environment and public policies. By analyzing the fuzzy curves we could see that, among the component aspects, the strategy of a city has the largest contribution. As is shown in Figure 7.18, the contribution elasticity coefficient is 0.6393. The effect of a city is typically

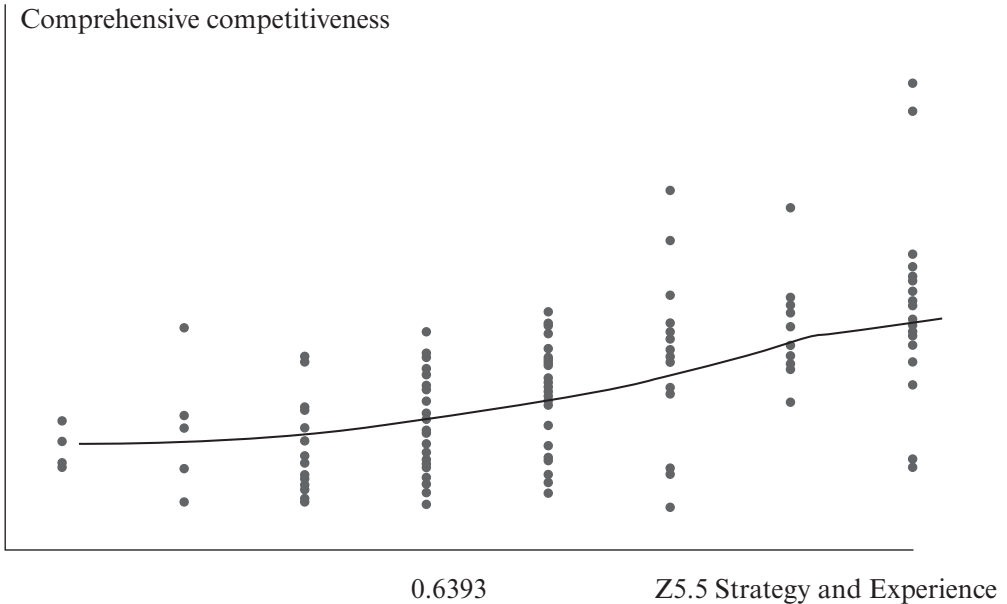


Figure 7.18 The relation between comprehensive competitiveness and strategy and experience

seen in the role of the experience and strategy of a city in guiding its further development. The identification of a strategy that fits the realistic growth picture is a key step for the development of the city. The strategy must take into consideration the status, advantages and disadvantages, and future positioning of the city, and closely trace the development trend of cities worldwide. A scientific, foresighted strategy could be a beacon for future development, and enable the city to take opportunities.

LIVING ENVIRONMENT: ENVIRONMENTAL QUALITY IS THE MOST IMPORTANT ASPECT

Living environment has a number of aspects, including natural environment, environmental quality, residential environment, shopping and catering environment, leisure and recreation environment and security environment. Data and analysis indicate that, among the above aspects, environmental quality has the largest contribution to the comprehensive competitiveness of a city. As is shown in Figure 7.19, its contribution elasticity coefficient is 0.5228. Empirical analysis indicates that high-ranking cities such as New York, London, Tokyo and Paris tend to have better environmental quality. Obviously, environmental quality is the most important aspect of the living environment, as well as one of the key factors that affect the comprehensive competitiveness of a city. Environmental quality could affect the living environment, and has indirect impact on local enterprises' ability to attract talents, capital, technology and other critical factors. Therefore, enhancing environmental protection and improving

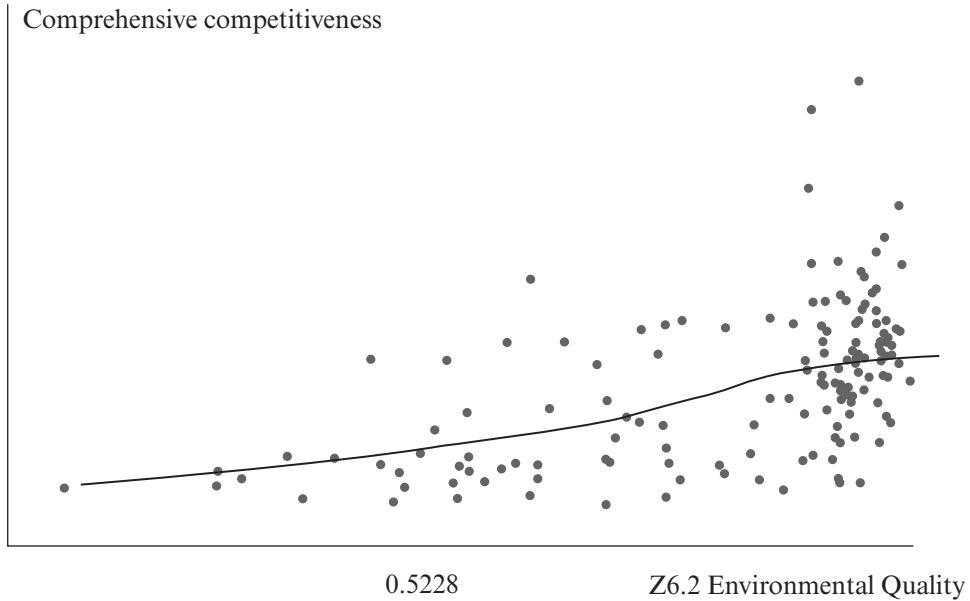


Figure 7.19 The relation between comprehensive competitiveness and environmental quality

environmental quality have become a fundamental aspect for the improvement of a city's competitiveness.

GLOBAL CONNECTIVITY: ENTERPRISE CONNECTIVITY IS THE MOST DIRECT ASPECT

Global connectivity is an index of a city's involvement in global competition and its position in the global market. Statistics and analysis indicate that enterprise connectivity has the most direct relation with the competitiveness of a city. As is shown in Figure 7.20, its contribution elasticity coefficient is 0.8092, the highest among all SCIs. Obviously, enterprise connectivity is one of the critical factors affecting the global competitiveness of a city. It is indicated with the presence of headquarters and regional headquarters of transnational companies. In essence, it reflects the position of a city in global competition and its ability to control and affect the world economy. Facilitating and driving the internationalization of local enterprises and attracting the headquarters and regional headquarters of multinational companies are the keys to the improvement of a city's competitiveness.

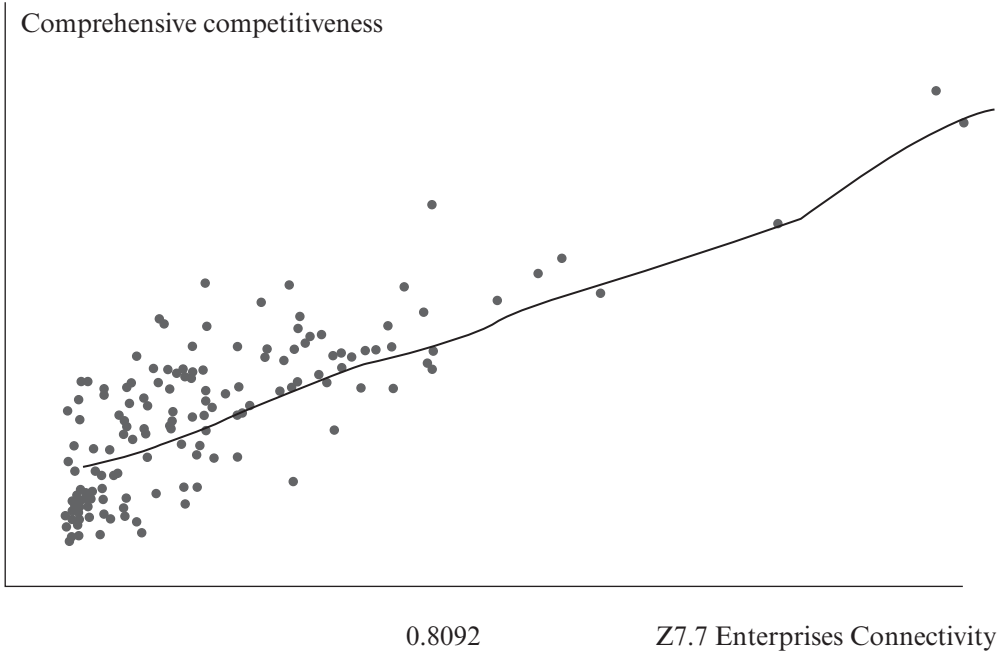


Figure 7.20 The relation between comprehensive competitiveness and enterprises connectivity

8. Cities: everything is possible in the future

One of the most important contributions of the study is the establishment of a database of nine objective indicators of the 500 sample cities, an action never before tried in the world. This data enabled us to conduct analysis and comparison through a number of different approaches, and to draw valuable findings. We conducted overall analysis of the nine indicators of the 500 sample cities through dynamic clustering methods and processes. Based on the dynamic clustering theory, we used the SPSS model to conduct clustering analysis for the nine explicit indicators of the 500 sample cities, and divided the samples into ten classes (see Table 8.1). Based on the above theory, we revised the results repeatedly with SPSS, and obtained ten final cluster centers for each of the 9 explicit indicators (Table 8.2).

Then the cities were classified in accordance with the absolute difference between the values of the nine indicators and those of the ten clusters by the nine indicators. The narrower the gap, the more valid the classification. Table 8.3 is the classification of the 500 sample cities by the 10 clusters.

Cities of cluster 1 usually have world-leading economy size, per capita GDP, productivity, GDP per square kilometer, patent applications and number of transnational companies, as well as a relatively high employment rate and economic growth. Cities of cluster 1 are New York and London. As global economic centers, they are getting stronger and stronger, and leading other cities by increasingly clear advantages.

Cluster 2 cities have relatively high per capita GDP, productivity and GDP per square kilometer. However, they are restricted by relatively small economic size and weak decision-making ability. Particularly, they have very low or even negative economic growth. There are 22 such cities in total, including Manchester, Lyon, Berlin, Kyoto and Kobe. Most of these cities are regional centers with a splendid history, but signs of economic decline.

Cluster 3 cities usually have strong economic growth, in spite of limited edge in per capita income, productivity, economic clustering, economy size, and ability of innovation. In total, there are three such cities. In fact, the cluster should include Las Vegas and a number of others. They are special cities that depend on special service industries. Currently, they have strong momentum of development.

Cluster 4 cities usually have low per capita income, productivity and economic clustering, weak innovation ability and economic control, low economic growth and little price advantage. In total, there are 100 such cities, distributed mainly in developed countries or the peripheral of global economic centers. As less developed cities in developed countries, they tend to have weak competitiveness and slow economic development.

Cluster 5 cities have relatively high per capita GDP, productivity and GDP per square kilometer. However, compared with London and New York, they have lower indicators in terms of GDP size, patent application, and number of transnational companies. In spite of high employment rate and economic growth, they do not have a clear competitive edge in terms of prices. In total, there are 64 such cities, mostly international cities in

Table 8.1 Number of cases in each cluster

		Cluster								Valid	Missing
1	2	3	4	5	6	7	8	9	10		
2	22	3	100	64	102	2	29	151	25	500	0

Table 8.2 Final cluster centers

Indicator	Cluster									
	1	2	3	4	5	6	7	8	9	10
Nominal/Real Exchange Rate Ratio	.023	.028	.032	.028	.028	.305	.020	.230	.208	.145
GDP	.811	.094	.020	.033	.070	.019	.949	.008	.010	.097
GDP per Capita	.950	.505	.663	.553	.741	.071	.799	.034	.066	.186
GDP per Square Kilometer	.716	.288	.871	.100	.196	.032	.358	.015	.029	.105
Real Economic Growth Rate	.190	.163	.278	.204	.186	.565	.136	.279	.301	.323
Employment Rate	.907	.903	.939	.913	.903	.927	.907	.503	.897	.902
Labor Productivity	.940	.376	.375	.436	.597	.063	.554	.047	.061	.169
Number of International Patents	.637	.379	.017	.087	.281	.018	.848	.007	.012	.106
Multinational Corporation Distribution	.980	.133	.117	.076	.209	.045	.642	.054	.046	.400

developed regions. In general, such cities can be divided into two classes. The first class includes cities that have been and are still among the developed cities, including Chicago, Boston, Philadelphia, Frankfurt, Munich, Milan, Amsterdam and Rotterdam, which have strong competitiveness and momentum of development. The second class includes many cities that were once less developed, for example, those in the Scandinavian region and the west coast of the United States such as Oslo, Stockholm, Helsinki, Copenhagen, Los Angeles, Seattle, Phoenix, San Francisco, San Jose and San Diego as well as Dublin and Melbourne. Once in the peripheral of global economic centers, these cities are on their way to becoming regional centers. With strong competitiveness and momentum, they are quickly surpassing their rivals.

Table 8.3 Classification of the 500 sample cities by K-average method

City	Cluster	City	Cluster	City	Cluster	City	Cluster	City	Cluster
London	1	Dublin	5	Paris	5	Rio de Janeiro	7	Rio de Janeiro	9
New York	1	.....	5	Tokyo	5	Brasilia	7	Brasilia	9
Manchester	2	Vienna	5	Sarajevo	5	San Salvador	8	San Salvador	9
.....	2	Oslo	5	Belgrade	5	Lima	8	Lima	9
Berlin	2	Stockholm	5	Groznjy	5	Quito	8	Quito	9
Lyon	2	Helsinki	5	Baghdad	5	Cairo	8	Cairo	9
Madrid	2	Copenhagen	5	Sanaa	5	Bucharest	8	Bucharest	10
Kyoto	2	Milan	5	Kabul	5	Warsaw	8	Warsaw	10
San Juan	2	Los Angeles	5	Port-au-Prince	5	Prague	8	Prague	10
Geneva	3	Chicago	5	Tripoli	5	Budapest	8	Budapest	10
Macao	3	Boston	5	Addis Ababa	5	Moscow	8	Moscow	10
Victoria (Canada)	3	Philadelphia	5	Nairobi	5	Beijing	8	Beijing	10
Liverpool	4	Minsk	6	Djibouti	6	Shanghai	8	Shanghai	10
Lille	4	St Petersburg	6	Kampala	6	Hong Kong	8	Hong Kong	10
Toulouse	4	T'umen	6	Porto Alegre	6	.....	9	.....	10
.....	4	Suzhou	6	Sofia	6	Singapore	9	Singapore	10
Marseille	4	Hangzhou	6	Kaohsiung City	6	Bangkok	9	Bangkok	10
Turin	4	Ho Chi Minh City	6	Busan	6	Kuala Lumpur	9	Kuala Lumpur	10
Sapporo	4	Hanoi	6	Kiev	6	Mumbai	9	Mumbai	10
Sendai	4	Phnom Penh	6	Penang	6	Istanbul	9	Istanbul	10
Pittsburgh	4	Delhi	6	.....	6	Mexico City	9	Mexico City	10
Memphis	4	Calcutta	6	Malacca	6	Sao Paulo	9	Sao Paulo	10
Tampa	4	Bangalore	6	Manila	6	Buenos Aires	9	Buenos Aires	10
Tulsa	4	Monterrey	6	Cebu	6	Santiago	9	Santiago	10

Note: expresses the omission of some cities.

Cluster 6 cities tend to have low GDP, per capita GDP, productivity, GDP per square kilometer, patent applications, and number of transnational companies. However, they have a competitive edge in prices and dynamic economic growth. In total, there are 102 such cities, including many regional centers (instead of national economic and political centers) in China, Russia, Mexico, India and other emerging countries and countries undergoing transformation. Most of these cities, for example, Minsk, Omsk, Tianjin, Suzhou, Baku and Manaus are located at advantageous regions outside global economic centers and on the rise.

Cluster 7 cities are Tokyo and Paris, both with world-leading economic size, development level, productivity, technological innovation and decision-making ability. However, they have maintained low economic growth. During the 2001–05 time frame, the economic growth of Paris was 1 percent and that of Tokyo was as low as 0.1 percent, showing signs of decline.

Cluster 8 cities have prominent price advantages. However, they tend to be the weakest by other indicators, particularly per capita income and patent applications, negative economic growth and low employment rate. In total, there are 29 such cities, which are mostly located in Africa, and the Caribbean region, as well as the warring countries and regions in East Europe and Asia, including Sarajevo, Belgrade, Groznyj, Baghdad, Kabul, Port-au-Prince, Tripoli, Addis Ababa, Nairobi, Djibouti and Kampala. Most of these cities are located in the peripheral of the world economy. As they continue to decline, they are expanding the gap between them and other cities.

Cluster 9 cities have distinct price advantages, but are weak in terms of other indicators. However, they have much better overall performance than cluster 8, the worst-performing cities. In total, there are 150 such cities, mostly central cities with weak competitiveness in smaller economies in Asia, Europe and Latin America, for example, Baltimore, Kaohsiung City, Pusan, Rio de Janeiro and Cape Town.

Cluster 10 cities have prominent price advantages, but relatively low per capita income, productivity, and GDP per square kilometer. They have leading economic size, patent application and number of transnational companies and high economic growth and employment rate. In total, there are 29 such cities, mostly political and economic centers in emerging countries undergoing transformation and industrialization in East Europe, South Europe, Asia and South Africa, for example, Prague, Moscow, Beijing, Singapore, Dubai, Sao Paulo, Buenos Aires and Alaska. Most of them are located at the centers of peripheral of the world economy and rising fast.

The above clustering shows that, in global economic centers, top ranking cities are getting increasingly stronger and expanding the gap with other cities. Some other cities are relatively weak, with slowing-down, or even declining economies. Many cities in the relatively peripheral of the world economy are rising fast and surpassing rivals. In the periphery of the world economy, cities have extremely low competitiveness and continue to decline. Some central cities or those with distinct advantage in geographic location are rising fast. It proves that the economic globalization and fast-evolving technologies have brought both the opportunity of a fast rise and the threat of decline to cities around the world, big or small, developed or undeveloped, currently on the rise or on the fall. Given the context of global competition, the relations between cities across the world are getting increasingly uncertain. For each city, anything is possible. On the other hand, every city should take positive actions in accordance with rules to avoid failure and achieve success.

WHAT HAVE CITY GOVERNMENTS AROUND THE WORLD BEEN DOING?

In the face of the opportunities and challenges of globalization, informatization, urbanization and the increasingly fierce competition in the world market, central and local governments have been taking actions since the beginning of the new century to consolidate their positions, move upward along the value chain, lead the trends, catch up with and surpass world leaders, and improve their global competitiveness.

Adopting Development Strategies, Plans and Guidelines

City governments around the world are adopting development plans to guide the fast development of their cities. Dubai has identified the strategic objective of being the no. 1 in the world. London has adopted a series of strategic development plans, including *London Innovation Strategy and Action Plan 2003–2006* and *London: Cultural Capital, the Mayor's Culture Strategy* to implement a strategic development of cooperation with other major cities in the world. Vienna is adopting a strategy with international identities to facilitate industrial development with music and to develop the high-tech industry. Many other cities, including Sydney and Melbourne have developed their 2030 visions.

Improving Business Environment and Supporting the Development of SMEs

Employment is the foundation of the welfare of the people. Many city governments are taking positive actions to improve their business environment and establish their service systems to support the development of small and medium enterprises (SMEs). They have realized that SMEs are key to a robust local economy. In spite of their sizes, the achievements of SMEs prove to be the foundation of their cities. In Osaka, there are SME-oriented financial institutions, the Japan Finance Corporation for Small and Medium Enterprise, National Life Finance Corporation, Credit and Insurance Corporation for Small and Medium Enterprise and Corporation for the Support of Small and Medium Enterprise, established to provide services to SMEs and to develop SME entrepreneurs. Similarly, Singapore, the United States, Canada, the European Union (EU), and almost every other country in the world has adopted policies to support SMEs as one of the top priorities.

Promoting the Upgrading of Industries and Achieving the Transformation of the Cities

The adjustment and upgrade of industrial structures will ultimately decide to what extent the functions of a city can be improved, and what position it will take along the value chain. Promoting industrial upgrade is the permanent theme of development for cities. Birmingham, which was a star city during the Industrial Revolution, has taken a series of actions in line with the latest changes in the market to integrate its traditional culture with the service sector. Today, it is admired for its tourism and cultural industries and its successful transformation. From a small port city on the south coast of the Arabian Peninsula, Dubai has grown into an appealing international tourism city, as well as an international financial center. The secret of its success lies in its unyielding transformation

and industrial upgrade. From canal operation in the 1970s to international trade in the 1980s to tourism in the 1990 to high-end service sector in the first decade of the twenty-first century, every step is a link in Dubai's history of industrial transformation, which proves to be a successful model for other cities.

Implementing National Lifelong Education Program and Attracting Talents from Around the World

It is generally accepted that human resources is the most important contributor to competitiveness. Cities are taking various actions to attract talented individuals from around the world and develop human resources internally. New York has announced its aim to increase input in education and human resources development, and to implement intelligent children education. While highlighting the importance of education, it is assigning an increasingly significant role to the education sector. Regarding people as a resource, Paris has introduced effective measures to integrate diploma education with certificate examination and special training to create plenty of scope for development for its citizens and fair market opportunities. In addition, it has adopted strict rules for on-the-job training, expenses and mechanisms concerned. For example, it orders that each enterprise shall pay an employee training fee not less than 1 percent of the total payroll to support on-the-job training. Tokyo is known for its powerful research institutions. Yet it is also trying to attract talent by creating a sound research and living environment. In 2004, the largest economic body in the city – Japan Federation of Economic Organizations – proposed to extend the visa of each foreign student for two to three years, even if he/she could not find a job. Helsinki has adopted a number of economic policies to encourage innovation. The first is for the attraction and retaining of talent. It aims to improve the internationalization level and influence of local universities to build Helsinki into an international education and research base by improving the service to foreign students and researchers. Singapore offers a series of preferential treatments to foreign laborers and technicians concerning salary, residence, spouse arrangement and taxation. The government has specifically established a Professional Profile and Employment Intermediary Service Committee and a Foreign Talent Absorption Committee to attract human resources in larger scope and at higher level.

Focusing on Environmental Protection and Pursuing Sustainable Development

Known as a 'garden city' across the world, Singapore is highly concerned with environmental protection and has introduced intensive publicity programs for the purpose. With a very substantial investment in environmental infrastructure development and energy utilization, and strict law enforcement, Singapore is able to maintain its image as a world-famous garden city. In Sustainable Sydney 2030, Sydney announced the goal of becoming a 'world leading city with a beautiful environment' and its plan to build a green urban transport network. In the meantime, it is going to develop infrastructures for sustainable energy and water resource utilization and wastewater treatment in an effort to satisfy the resource demand and further improve the efficiency of resource utilization.

Shaping Brand Images and Staging Marketing Programs for their Cities

Cities around the world have realized that improving their brand images and promoting themselves to the world would be helpful to bring local industries into the world market. As an old Chinese saying goes, 'a brewery located in a long valley needs to promote itself no matter how good its beer is'. In this respect, the marketing efforts of Seoul have been really remarkable. In 1988, Seoul hosted the twenty-fourth Olympic Games and the tenth Asian Games, which turned out to be the start of the city's massive marketing campaign. At the end of 2003, the city government adopted the *Strategic Marketing Plan to Build Seoul into A First-Class City in the 21st Century* proposed by the South Korean Advertising Society. In the same year, it appointed 13 celebrities as image ambassadors of the city. A series of intensive marketing festivals, exhibitions, cultural/sports events and online marketing campaigns eventually delivered satisfactory results. Sydney, on the other hand, leveraged its global Olympic tourism strategy to build world-class tourist resorts and golf courses. In addition, many other cities are introducing their own marketing campaigns, for example, 'Special Singapore', 'Flying Dragon Hong Kong', 'Infinite Toronto', 'Smiling Glasgow' and 'New York, with Love'.

Building Service-Oriented Governments with Business-Level Management

Worldwide, major international cities are introducing positive actions to enhance their management level. Phoenix, an important city in the western United States, has announced that it will adopt business-level management and operations, whereby the city council is regarded as a corporation, and citizens its shareholders and customers. By paying taxes, Phoenix citizens are buying the stocks and services of that corporation. This innovative idea has improved the service awareness of the public and the sense of responsibility of the government, with a satisfactory result. The business-level government management idea is a good example to learn from.

Building the City of Innovation and the City of Knowledge

Cities around the world, particularly, those in developed countries are taking actions to enhance their positions in the field of science and technology, and leverage knowledge to promote their development. Through industrial agglomeration, Stockholm is pushing for the industrialization of the high-tech sector and the commercialization of its knowledge assets, and is encouraging innovation and risk-taking. Shenzhen, on the other hand, has been strengthening its intellectual property rights protection, helping businesses to solve the financing problem for their R&D activities, and building a 'virtual university town' and a 'Shenzhen International Hi-tech Business Platform'. Helsinki has identified the high-tech manufacturing as its pillar industry. It is taking opportunities in the information-technology market to guide the development of the semiconductor and biotech sectors. Vienna is building its science and technology center. Melbourne has announced its aim to develop a knowledge-based city. Many other cities, including Boston, Sydney, Ruhr, Helsinki, Glasgow, Birmingham, Huddersfield and Montpellier are committed to the development of cities of innovation or knowledge-based cities.

Developing Information Networks to Build the Wireless City

Information network is the focal point of the infrastructure development competition among international cities, as well as a requirement of the global Internet economy. New York, for example, has announced an online city development plan to lead the information revolution. Taipei and Pusan are doubtless shining stars in this contest. With the vision for a ‘convergent city’, Pusan is engaged in the development of a modern, convergent and digital, intelligent city based on Samsung’s Ubigate series of convergent network products. In the meantime, it is integrating its port, transport, conference, medical and a number of other service systems, with the aim of becoming the first city in the world to introduce a comprehensive ‘convergence architecture’. Taipei initiated a networked city development plan in 1999. Based on *Guidelines for Phased Development of a New Networked City*, it developed the *Taipei Wireless Broadband Network Development Program* to promote the application of wireless network and the relevant services, and to achieve the goal of ‘wireless Taipei, infinite Taipei’.

Shaping the Identities of the Cities by Fostering Diversified Cultures

The higher-level competition among cities is the competition of cultures. As the leaders in the world, the world cities are facing particularly fierce competition in terms of cultural strategy and innovation. Cities around the world are working hard to protect their heritages, promote their own cultures, shape their own identities, attract migrants, advocate convergence and foster a diversified culture. In the field of cultural diversification, Toronto has made really remarkable achievements, as it is called ‘the melting pot of world cultures’. New York and London are engaged in the development of a diversified culture, too. Melbourne is trying to develop its cultural industry to attract migrants and foreign students from around the world. It proves to be an effective means to drive the development of the city’s higher education sector, to increase the reserves of its knowledge resources and to promote its headquarters economy. Vienna has impressed the world with its art and culture. It has received both satisfactory economic benefits and admirable international reputation for its awe-inspiring music art. Based on its traditional oriental culture, the Chinese city of Yangzhou is following a path of sustainable development, and is regarded as a paradigm of success in developing countries.

Attracting Multinational Companies’ Headquarters for Decision-Making and Enhancing Global Connectivity

As key sectors and critical functions of the world economy, finance, R&D, transportation, culture and management directly affect the position of a city in the global industrial chain, which, in turn, affects the distribution of multinational companies. Therefore, cities around the world are taking action to build international financial, transportation, innovation, cultural and management centers to attract multinational companies and enhance global connectivity. Hong Kong has positioned itself as an Asian metropolis to attract more world-leading multinational companies to move their regional headquarters there and to consolidate its position as an international financial and business service center. Melbourne is trying to improve its business environment to attract more corporate

headquarters. The growth of Helsinki is the result of opening up to the world, the lifting of restrictions on foreign capital, the implementation of joint research plans with the EU and partnerships with northern European countries. Dublin, on the other hand, is today the base of the European headquarters of many North American companies. Many Asian cities, including Dubai, Seoul, Shanghai and Mumbai have announced plans to build international financial centers. In Europe, Frankfurt and a number of other cities have announced ambitious plans for the development of financial centers.

In general, cities around the world are taking actions to enhance their strategies, enterprises, industries, human resource reserves, hard/soft environments and global connectivity to consolidate their positions in the global competition and to move upward along the value chain. In a word, the cities are busy, which indicates that the competition among them is getting more and more intensified.

HOW SHOULD CITY GOVERNMENTS HANDLE CHALLENGING RELATIONS IN THE FUTURE?

Since 2008, 50 percent of the world population lives in cities. Today is a real urban era, as the world is at its peak of urbanization. On the one hand, urbanization has promoted economic growth and the potential for world development. On the other hand, it has created severe challenges in the poverty population, housing, and environmental protection. Therefore, governments need to re-examine the sustainable economic, social, environmental and cultural development of their cities, and make long-term plans for the education, employment and housing of the large number of immigrants, and build pleasant homes for people.

In the meantime, technology, information and economic globalization are changing the concept and decision-making processes of economic, technological and social activities worldwide. While enhancing the role of cities in global affairs, they have further intensified the competition among them. For every city, anything is possible in the fierce global competition. They need to take action to maintain their central and leading positions, to avoid being marginalized or in decline. They need to catch up and surpass others by taking opportunities and addressing challenges, leveraging advantages and avoiding disadvantages, and developing and implementing scientific growth strategies and correct competition policies. Only by taking positive strategic actions can the city achieve success and avoid failure.

In this view, central and local governments, as well as relevant government agencies, should properly handle the following general issues in addition to specific problems.

Central Governments vs Local Governments: Decentralization

The division of public power, particularly the power of taxation between central and local governments has a significant impact on the development of countries and sub-regions. In this time of globalization, cities are important platforms, as well as transmitters of global competition. In local strategic development, the building of infrastructures, the provision of diversified public products and services, including the provision of compulsory education, the establishment of universities, helping SMEs implement financing

programs, providing new enterprises with information needed, and helping companies and research centers establish effective technological connections, handling local affairs and addressing external competition, cities have information and cost advantages.

Therefore, city governments should assume more responsibilities and play more important roles. Central governments should grant more decision-making power to city governments to enable active and flexible handling of issues encountered in the competition and development of cities. In the meantime, governments should review their fiscal and taxation systems, and build sound systems allowing proper division of power to enable city governments to better fulfill their duties and support the development of local enterprises and the improvement of public welfare.

Government vs Market: Mutual Infiltration

The relationship between government and market is a permanent topic worldwide. However, in order to win in the fierce competition, city governments must rethink and adjust their relations with markets. In addition, governments, which bear more responsibilities for social and economic development, should take action not only to improve their public service but also to facilitate its restructuring. On the one hand, city governments should take an active part in market competition, create a sound business environment, build a strong brand and increase their appeal to more valuable enterprises. On the other hand, with innovative systems, and extensive applicable technologies, enterprises and non-government organizations are now able to provide more public services and quasi-public services and to improve the efficiency and quality of their service. It is necessary to encourage more enterprises, non-government organizations and private businesses to participate in city management and to build an extensive city governance mechanism.

Globalization vs Localization: Take It Both Ways

The city is a complicated open system. In an integrated world market, every city must carefully handle the relation between globalization and localization. It must have a global mindset and take actions in line with the specific situation in the local market. Cities should grasp the trend in the world market, adopt world-leading standards, comply with the rules of global economic development, draw from the experience of leading cities, develop objectives in line with specific time and local market conditions, and select the right paths and strategies. Cities should facilitate the development of world market-oriented industries, while protecting local industries. The former consists of enterprises with worldwide business presence and leading edges in price and competitiveness, while the latter mainly includes local manufacturing and service enterprises, which are established to ensure the employment and welfare of local people. While ensuring the complete privatization of world market-oriented industries, the approach enables the adoption of proactive social policies toward local economy. To be able to utilize the two types of resources and both markets, cities need to absorb and utilize production factors, talent and resources from around the world, increase global market share and leverage their comparative advantages, which they should try to convert into their competitive advantages in line with their geographic location, industrial features and the availability of capital and human resources.

Industrial Upgrading and Employment: National Lifelong Education

Industrial upgrading is a permanent theme of development, as well as the momentum of sustainable development for a city. However, industrial upgrading, or the development of high-end industries, would result in a higher demand for talent, and a conflict of the human resource supply-demand structures. In other words, while a large number of high-end professionals are needed, many low-end workers would lose their jobs. This has been a challenge for many international cities. The key to solving this challenge is to promote lifelong education for every citizen. By building and improving a sound education system, cities would be able to improve the quality and skill structure of their populations, and eventually solve the conflict between employment and industrial upgrading.

Introduction of Talent vs Local Population: Nationwide Drive for Business Startup

The introduction of high-end external talent is a basic strategy to improve competitiveness and achieve sustainable development. Cities across the world are taking actions to attract high-end foreign talent to sustain their own development. These personnel, however, could increase the employment pressure experienced by local citizens. The increasingly sharp conflict between the talented individuals who are imported and the local population has been a challenge for many cities across the world. In order to facilitate development and achieve a win-win outcome for the local population and talented individuals who immigrate, cities need to create a sound business startup environment, guide their citizens to start their own businesses, and expand the employment market. Through these means, they would be able to achieve growth, allow the sharing of prosperity and fundamentally solve the employment conflict between local population and introduced talent.

Economic Development vs Social Security: A Proper Balance Needed

It is necessary to ensure the complementation and mutual support of social security and economic development. Social security is the stabilizer of economic development and the foundation of market competition. Economic development is the pillar of social security. Economic strength is critical to the success of the social security system. In view of the fierce competition in the global market, city governments need to provide their citizens with good education, job opportunities and housing, as well as necessary facilities and public services. In the meantime, they should also try to create a sound business environment, support competitive industries and assume responsibilities for economic development. In this regard, cities in countries in the East and West have much to learn from each other. Cities in the developed countries in the West have solid and extensive social security systems, but are less motivated and passionate about economic development. Cities in the East, particularly those in East Asia, have a strong momentum for economic development but need to do more about their social security.

Specialization vs Diversification: Refocusing Strategy

Specialization and diversification are two different strategies for the development of cities. Both have their respective advantages and disadvantages. Specialization could

improve efficiency but may result in too few industries in a city. If these industries are not transformed in time, the city would be easily caught in a sector-specific decline. Diversification is helpful for avoiding market risks, but would create too many industries, which would consume resources and affect the economies of scale. To leverage the advantages and avoid the disadvantages, it is necessary for cities to adopt a strategy of refocusing for functional positioning and industrial structure development. That means that they should select not just one industry, or numerous industries, but a number of interrelated industries as their pillar industries. This approach could ensure the economic benefits of the specialization model and the stability of the diversification model, and avoid the disadvantages of both.

Business Environment vs Living Environment: Both Are Important

Business environment and living environment are both consistent and conflicting. On the one hand, job opportunities are important conditions to support the life of the citizens, while a good living environment could attract high-end talent and is helpful for the development of high-end industries. On the other hand, industrial development is often achieved at the cost of environmental and life quality. Overemphasis on the living environment would affect the development of local industries.

Properly handled, the relations between them could facilitate the prosperity of both, to the extent possible. Ensuring a good living environment should be regarded as the ultimate objective of industrial development. In the meantime, maximum efforts should be made in industrial development to ensure the protection of the living environment. The principle of mutual support between the living environment and the business environment should be adopted to build a new mechanism for the sustainable and harmonious development of ecological, cultural and social elements in both the living environment and the business environment.

Cities and Rural Areas: Co-Development Should Be Achieved

In countries and regions with a low urbanization level, the relationship between cities and rural areas is a challenging issue. In highly urbanized countries and regions, the relationship between central and peripheral regions is also very complicated. Actions should be taken to handle properly the relationships between rural areas and cities to ensure their co-development. Co-development does not mean that cities and rural areas must have identical objectives, tasks and measures. On the contrary, different but mutual supporting tasks and measures should be identified for cities and rural areas in accordance with their specific situations. The market mechanism should be used to ensure a win-win result. In addition, it is necessary to ensure the integration of the soft environment, including mechanisms, management and service, and the hard environment and infrastructures of both cities and rural areas to provide equal opportunities and to allow the sharing of the benefits from external economic development. In view of the relatively weak strength of the rural areas, the government should make up the defect of the market by increasing transfer payment to rural areas to support their development.

Competition vs Cooperation: Both Are Essential for Development

Owing to the independence of economic benefits, the scarcity of resources and restriction of the market, competition among cities is inevitable. However, cities' differences in natural resources, initial conditions, development paths and the foundations for labor division have paved the way for their cooperation. Therefore, competition and cooperation between cities are natural phenomena. However, the competition between cities could be of zero sum, negative sum or positive sum, that is, win-win models. A wise city government should employ both competition and cooperation strategies. It shall not sacrifice competition for cooperation, or vice versa. Appropriate competition and cooperation strategies would enable the sharing of benefits and the taking of opportunities to avoid zero sum or negative sum games and to achieve win-win or success for both.

History vs Future: Both Should Be Taken Care Of

It has been a challenge for economists to handle properly the conflict between history and the present, and that between the present and the future. History could be both an asset and a burden for a city. For the protection of historical heritages, many cities have lost the opportunity to win competition. On the other hand, to ensure a city wins in a future full of uncertainties, it is necessary to save resources and protect the environment at the present time, which could turn out to be a restriction on the city. The historical heritages should be protected in ways that would turn them from burdens into fortunes. To win in the future, it is necessary to turn the environment from resources to capital. Therefore, while protecting unique and precious historical heritages and turning them into core assets of a city, it is necessary to introduce protective development measures. On the other hand, environmental protection and eco-city development means should be adopted to increase the appeal of a city to high-end factors and promote industrial upgrading. In the meantime, it is necessary to explore a win-win approach for the coordinated development of the economy, ecology, society and culture, and to facilitate sustained development of the economic, ecological and social systems.

Uniqueness vs Diversity: Openness and Convergence

The most fundamental form of competition between cities is the competition of cultures. The national identities would most probably be accepted by the world. A competitive culture must be unique in the first place. Unique identity could differentiate a city from its rivals, and become an important cause for its survival and development. In this era of globalization, it is particularly important to maintain the identity and the unique culture of a city. A competitive culture must be an innovative culture at the same time. The convergence and collision of diversified cultures have created the conditions not only for the concentration of the best, but also for the introduction of innovations and creations. To properly handle the relations between local culture and diversification, cities should persist on openness and convergence, which is not to keep all cultures identical, but to absorb and draw from external cultures to create a more competitive and more advanced culture while maintaining their own identities.

Appendix 1 Global urban competitiveness: specific data sources

The data sources for the urban competitiveness indices are in two categories. The first is for the comprehensive competitiveness indices, and the second is for the subentry competitiveness indices. The sources for each are detailed in this appendix.

DATA SOURCES OF COMPREHENSIVE COMPETITIVENESS INDEXES

1 Nominal Exchange Rate/PPP Exchange Rate

The data come from the website of World Bank (<http://www.worldbank.org>).

2 Gross Domestic Product

The data for the gross domestic product primarily come from official websites of the cities; municipal, regional or national statistical websites; websites of municipal, regional or national departments; municipal, regional or national statistical yearbook; statistical report of the European Union, Wikipedia website (http://en.wikipedia.org/wiki/Main_Page); national GDP rank by the World Bank; websites of city mayors (<http://www.citymayors.com>) and relevant reports on the Internet media.

3 GDP per Capita

Data source: same as the gross domestic product.

4 GDP per Square Kilometer

Data source: same as the gross domestic product.

5 Real Economic Growth Rate (for 5 Years)

Data source: same as the gross domestic product.

6 Employment Rate

Data source: same as the gross domestic product.

7 Labor Productivity

Data source: same as the gross domestic product.

8 Number of International Patent Applications

Data source: website of the World Intellectual Property Organization (WIPO) (<http://www.wipo.int/>).

9 Multinational Corporation Score

Data source: websites of sample enterprises.

DATA SOURCES OF SUBENTRY COMPETITIVENESS INDEXES

1 Enterprise Quality

Z1.1.1 Social Responsibility. Data source: corporate websites and annual reports.

Z1.1.2 Entrepreneurship. Data source: corporate websites, annual reports and Google search.

Z1.2.1 Shareholding Proportion of the First Large. Data source: corporate annual reports.

Z1.2.2 Stock Ownership Incentive. Data source: corporate annual reports.

Z1.3.1 External Supervision. Data source: corporate annual reports and corporate websites.

Z1.3.2 Financial Management. Data source: corporate annual reports, corporate websites and news report.

Z1.3.3 Development Strategy. Data source: corporate websites and Google search.

Z1.4.1 The R&D/Revenue Ratio. Data source: corporate annual reports and corporate websites.

Z1.4.2 Technical Level in Production Manufacturing. Data source: corporate annual reports and corporate websites.

Z1.4.3 Market Range. Data source: corporate annual reports and corporate websites.

Z1.5.1 Popularity of Enterprise. Data source: Google search.

Z1.5.2 Popularity of Products. Data source: Google search.

Z1.6.1 ROE (Return on Equity). Data source: Google finance and corporate annual reports.

Z1.6.2 Profit Growth Rate. Data source: Google finance and corporate annual reports.

2 Industry Structure

Z2.1.1 Percentage of the Service Industry. Data source: websites of national or municipal statistical bureaus.

Z2.1.2 Number of Manufacturing Multinational Corporation Headquarters. Score according to the urban distribution of headquarters of manufacturing corporations in Forbes Global 2000 (2005).

Z2.2.1 Percentage of Producer Service Industry. Data source: websites of national or municipal statistical bureaus.

Z2.2.2 Number of Multinational Wholesale and Retail Corporations. Score according to the urban distribution of headquarters of wholesale and retail corporations in Forbes Global 2000 (2005).

Z2.2.3 Number of Multinational Commerce Service Corporations. Score according to the global distribution of Top 25 multinational corporations in the global management consulting, accounting and legal industry by income.

Z2.2.4 Number of Multinational Advertising & Media Corporations. Score according to the global distribution of the Top 25 multinational advertising and media corporations by income.

Z2.3.1 Percentage of Financial Industry. Data source: websites of national or municipal statistical bureaus.

Z2.3.2 Multinational Financial Corporation Headquarter Distribution. Score according to the urban distribution of the Top 75 financial corporation headquarters in Forbes Global 2000 (2005).

Z2.3.3 Multinational Financial Corporation Branch Distribution. Score according to the urban distribution of the Top 75 financial corporation headquarters in Forbes Global 2000 (2005).

Z2.4.1 Number of Multinational Software Service Corporation Headquarters. Score according to the urban distribution of software service corporation headquarters in Forbes Global 2000 (2005).

Z2.4.2 Number of Multinational High-Tech Corporation Headquarters. Score according to the urban distribution of high-tech corporation headquarters in Forbes Global 2000 (2005).

Z2.4.3 Industry Driving Force. Data source: website of Alexa (<http://www.alexa.com>).

3 Human Resource

Z3.1.1 Average Life Expectancy at Birth. The average life expectancy at birth refers to the life expectancy when people were born. Data source: official municipal websites, municipal, regional or national statistical websites, websites of municipal, regional or national departments, relevant reports of Internet media, relevant reports of government or research departments, Wikipedia website, search of other websites.

Z3.1.2 Infant Mortality Rate (number per 1000 newborn infants). Infant mortality rate refers to the mortality rate of every 1000 infants less than 1 year old. Data source: same as the average life expectancy at birth.

Z3.2.1 Adult Literacy Rate. Adult literacy rate refers to the percentage of literate adults to the total adult population. Data source: same as the average life expectancy at birth.

Z3.2.2 Proportion of Persons Holding Bachelor Degree or Higher. Data source: same as the average life expectancy at birth.

Z3.3.1 Number of Labor Force. Data source: same as the average life expectancy at birth.

Z3.3.2 Proportion of Labor force. Data source: same as the average life expectancy at birth.

Z3.4.1 Number of Managers (per 1000 Inhabitants). Data source: Knowledge Competitiveness Index compiled by Professor Robert Huggins in University of Sheffield.

Z3.4.2 Employment in High-Tech Services (per 1000 Inhabitants). Data source: Knowledge Competitiveness Index compiled by Professor Robert Huggins in University of Sheffield.

Z3.5.1 Number of Colleges and Universities. Data source: web search.

Z3.5.2 Famous University Distribution. Data source: Webometrics Ranking of world universities and research institutes.

Z3.6.1 Employees' Earning. Data source: acquired after converting the data of national disposable income per capita and urban GDP and the quantity of employment on the website of Euromonitor (<http://www.euromonitor.com>).

Z3.6.2 Living Cost. Data source: Ranking of Global Urban Cost of Living compiled by Mercer.

4 Hard Environment

Z4.1.1 Land Area Per Capita. Data source: web search.

Z4.1.2 Freshwater Per Capita. The freshwater per capita adopts the variable substitution method, namely, using the urban annual average rainfall as the substitution. Data source: web search.

Z4.1.3 Status of Power Supply. Data source: the Global Competitiveness Report (2006–2007) of the World Economic Forum.

Z4.1.4 Water Price. Data source: web search.

Z4.1.5 Electricity Price. National data. Data source: web search.

Z4.1.6 Office Rental. Data source: Global Market Rents of Richard Ellis.

Z4.2.1 Financial Market. The concrete indexes used in the financial market are the trading volume of shares in urban stock exchanges. Data source: 2006 Report of the World Federation of Exchanges (WFE).

Z4.2.2 Getting Credit. National data. Data source: Doing Business Report of World Bank.

Z4.2.3 Effective Exchange Rate. National data. Data source: the Global Competitiveness Report (2006–2007) of the World Economic Forum.

Z4.2.4 Difference of Deposit and Loan. National data. Data source: the Global Competitiveness Report (2006–2007) of the World Economic Forum.

Z4.3.1 Number of International Patent Applications. Data source: website of the World Intellectual Property Organization (WIPO).

Z4.3.2 Number of Papers Published in International Journals. Data source: Google search.

Z4.3.3 The Number of Famous Laboratories and Research Centers. Data source: Webometrics ranking of world universities and research institutes.

Z4.3.4 The National Technical Infrastructure. National data. Data source: the Global Competitiveness Report (2006–2007) of the World Economic Forum.

Z4.4.1 Urban Population. Same as Z3.1.1–Z3.3.2.

Z4.4.2 Urban Income Per Capita. Acquired after converting such data as the national income per capita and the urban GDP per capita of the Euromonitor.

Z4.4.3 Regional GDP Per Capita. Data source: World's Most Competitive Cities of OECD.

Z4.4.4 Regional Population. Data source: World's Most Competitive Cities of OECD.

5 Soft Environment

Z5.1.1 Ratio of Local Revenue to the National Revenue, which employs the national data, namely, expressed with the local revenue percentage of total. Data source: official municipal websites, municipal, regional or national statistical websites, websites of municipal, regional or national departments, relevant reports of Internet media, relevant reports of government or research departments, Wikipedia website, search of other websites.

Z5.1.2 Index of Economic Liberalization. National data. Data source: The Heritage Foundation and the Index of Economic Freedom prepared by the Wall Street Journal.

Z5.1.3 Protecting Investors. National data. Data source: Doing Business Report of WB.

Z5.2.1 Starting a Business. National data. Data source: Doing Business Report of WB.

Z5.2.2 Dealing with Licenses. National data. Data source: Doing Business Report of WB.

Z5.2.3 Closing a Business. National data. Data source: Doing Business Report of WB.

Z5.3.1 Routine Management. Data source: official municipal websites and Google search.

Z5.3.2 Emergency Management. Data source: official municipal websites and Google search.

Z5.4.1 Administration Efficiency. Data source: official municipal websites and Google search.

Z5.4.2 Public Satisfaction. Data source: official municipal websites and Google search.

Z5.5.1 Development Experience. Data source: official municipal websites and Google search.

Z5.5.2 Development Strategy. Data source: official municipal websites and Google search.

Z5.6.1 Payments. National data. Data source: Doing Business Report of WB.

Z5.6.2 Time. National data. Data source: Doing Business Report of WB.

Z5.6.3 Total Tax Rate. National data. Data source: Doing Business Report of WB.

Z5.6.4 Corruption Cost. National data. Data source: the Global Competitiveness Report (2006–2007) of the World Economic Forum.

Z5.6.5 Weighted Average Tariff Rate. National data. Data source: World Development Indicators 2006 of WB.

6 Living Environment

Z6.1.1 Natural Landscape. Data source: Ctrip.com (<http://www.ctrip.com>).

Z6.1.2 Climate. Data source: web search.

Z6.2.1 Sulphur Dioxide Emissions. Data source: 2003 Human Development Index of UNDP.

Z6.2.2 Wastewater Treatment Rate. Data source: 2003 Human Development Index of UNDP.

- Z6.2.3 Particles. Data source: 2003 Human Development Index of UNDP.
- Z6.3.1 Shopping. Data source: Ctrip.com (<http://www.ctrip.com>).
- Z6.3.2 Price Index. National data. Data source: International Financial Statistics of IMF.
- Z6.4.1 Dining. Data source: Ctrip.com (<http://www.ctrip.com>).
- Z6.4.2 International Hotels. Data source: websites of sample enterprises.
- Z6.4.3 The Price of Restaurant. Data source: web search.
- Z6.5.1 Per Capita Dwelling. Data source: official municipal websites, municipa, regional or national statistical websites, websites of municipa, regional or national departments, relevant reports of Internet media, relevant reports of government or research departments, Wikipedia website, search of other websites.
- Z6.5.2 Housing Price to Income Ratio. Data source: official municipa websites, municipa, regional or national statistical websites, websites of municipa, regional or national departments, relevant reports of Internet media, relevant reports of government or research departments, Wikipedia website, search of other websites.
- Z6.5.3 Lodging (Ctrip). Data source: Ctrip.com (<http://www.ctrip.com>).
- Z6.6.1 Entertainment. Data source: Ctrip.com (<http://www.ctrip.com>).
- Z6.6.2 World Heritage. Data source: materials concerning world heritage on the website of UNESCO World Heritage Committee.
- Z6.7.1 Crime Rate (cases per 10000 persons). Data source: official municipal websites, municipal, regional or national statistical websites, websites of municipal, regional or national departments, relevant reports of Internet media, relevant reports of government or research departments, Wikipedia website, search of other websites.
- Z6.7.2 Cost From Terrorism. National data. Data source: the Global Competitiveness Report (2006–2007) of the World Economic Forum.

7 Global Connectivity

- Z7.1.1 Nature Location: Distance to River, Lake or Sea. Data source: Google map and web search in Google Earth.
- Z7.1.2 Society Location: Distance to World Famous Cities and intercontinental cities. Data source; Google map and web search in Google Earth.
- Z7.2.1 Number of Railway Lines (5 points). Data source; Google map and web search in Google Earth.
- Z7.2.2 Number of Highway Lines (5 points). Data source: Google map and web search in Google Earth.
- Z7.3.1 Container Throughput. Data source: municipal port websites and other web search.
- Z7.3.2 Berth Draft. Data source: municipal port websites and other web search.
- Z7.4.1 Aircraft Movement. Data source: website of the Federation Aeronautique International (<http://www.fai.org/>), websites of municipal airlines, and other web search.
- Z7.4.2 Passenger Throughput. Data source: website of the Federation Aeronautique Internationale (<http://www.fai.org/>), websites of municipal airlines, and other web search.
- Z7.4.3 Cargo Handled. Data source: website of the Federation Aeronautique International (<http://www.fai.org/>), websites of municipal airlines, and other web search.

Z7.5.1 Virtual Connectivity of Enterprise Website. Data source: Alexa website (<http://www.alexa.com>).

Z7.5.2 Virtual Connectivity of Official City Website. Data source: Alexa website (<http://www.alexa.com>).

Z7.6.1 Percentage of Foreign-born Population. Data source: official municipal websites, municipal, regional or national statistical websites, websites of municipal, regional or national departments, relevant reports of Internet media, relevant reports of government or research departments, Wikipedia website, search of other websites.

Z7.6.2 Percentage of Foreign Visitors. Data source: same as the percentage of foreign-born population.

Z7.7.1 Number of Multinational Corporation Headquarters. Score according to the global distribution of multinational corporations in the financial, management consulting, accounting, legal, advertising and media industries selected.

Z7.7.2 Number of Multinational Corporation Branches. Score according to the global distribution of multinational corporations in the financial, management consulting, accounting, legal, advertising and media industries selected.

Appendix 2 Global urban competitiveness analysis: data sheets for the 150 cities

In Appendix 2, 300 tables of 150 sample cities are given, the contents on which are basic facts, the scores, rankings and the level of urban competitiveness.

The table about Amsterdam on the right is used as an example. The first table, indicated by ① contains city basic facts including population, area, GDP per capita and GDP growth rate. The second table depicts numerical value, ranking and level of urban competitiveness index. ② is the comprehensive urban competitiveness index, ③ is the compositive individual indicator competitiveness indices and ④ is non-compositive individual indicator competitiveness indices (including first-level indicators indicated by ⑤ and second-level indicators showed by ⑥), ⑦ is the city location. ⑧ is the ranking and ⑨ is the grade.

The synthetical competitiveness index and nine subentry indexes of the 500 cities are divided into 17 grades based on their ranks.

The grades are listed as follows: cities ranked from 1 to 30 are named A++; cities ranked from 31 to 60 are named A+; cities ranked from 61 to 90 are A; cities ranked from 91 to 120 are A-; cities from 121 to 150 are A--. Cities in the B, C and D grades are divided according to the same theory. The last 20 cities are named D+. The seven level-I indexes and their related subentries are also named from A++ to A--.

AMSTERDAM CITY COMPETITIVENESS									
Table A2.1 Basic facts									
Basic Facts (Unit)		Numerical Value							
Population (10,000)		74.30							
Area (Sq Km)		219.07							
GDP per Capita(\$)		42991							
GDP Growth Rate (%)		0.83							




Table A2.2 Competitiveness index											
Name			Score	Rank	Level	Name			Score	Rank	Level
Comprehensive Competitiveness			0.513	35	A	Z3.6 Cost of Labor Force			580	101	A-
Nominal/Real Exchange Rate Ratio			0.021	242	C	Z4 Hard Environment			747	35	A+
GDP			0.054	79	A	Z4.1 Basic Elements			687	117	A-
GDP per Capita			0.685	15	A	Z4.2 Financial Market			641	51	A+
GDP per Square Kilometer			0.227	54	A	Z4.3 The Ability for Innovation			778	9	A++
Real Economic Growth Rate (5 Years)			0.138	155	D+	Z4.4 Market Scale			443	62	A
Employment Rate			0.903	298	B	Z5 S&I Environment			743	78	A
Labor Productivity			0.565	56	A	Z5.1 Market System			563	98	A-
Number of International Patents			0.261	74	A	Z5.2 Market Regulation			724	84	A
Multinational Corporation Distribution			0.398	27	A+	Z5.3 Social Management			700	70	A
Individual Criteria						Z5.4 Public Service			550	80	A
Z1 Enterprise Competitiveness			0.808	15	A-	Z5.5 Strategy and Experience			700	53	A+
Z1.1 Corporate Culture			0.750	32	A	Z5.6 Paying Taxes			854	21	A++
Z1.2 Corporate System			0.700	78	A	Z6 Living Environment			722	138	A--
Z1.3 Enterprise Management			0.933	21	A++	Z6.1 Natural Environment			659	101	A-
Z1.4 Enterprise Operation			0.661	51	A	Z6.2 Environmental Quality			924	74	A
Z1.5 Brand			0.800	30	A+	Z6.3 Shopping Environment			477	149	A--
Z1.6 Enterprise Performance			0.600	55	A	Z6.4 Dining & Restaurant			630	116	A-
Z2 Industry Structure			0.645	20	A++	Z6.5 Housing			345	130	A--
Z2.1 Manufacturing Development			0.768	22	A+	Z6.6 Culture and Entertainment			495	146	A--
Z2.2 Service Industry Development			0.726	13	A+	Z6.7 Social Security			771	6	A++
Z2.3 Financial Sector Development			0.461	53	A	Z7 Global Connectivity			000	1	A++
Z2.4 High-Tech Industry Development			0.602	29	A+	Z7.1 Location Convenience			700	99	A-
Z3 Human Resource			0.737	32	A	Z7.2 Land Transportation			390	30	A++
Z3.1 Health			0.911	13	A	Z7.3 Water Transportation			343	14	A++
Z3.2 Literacy Quality			0.779	11	A	Z7.4 Air Transportation			610	16	A++
Z3.3 Status of the Labor Market			0.405	109	A	Z7.5 Information Connectivity			658	5	A++
Z3.4 Status of Talent			0.419	78	A	Z7.6 Residents Connectivity			470	20	A++



AMSTERDAM CITY COMPETITIVENESS

Table A2.1 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	74.30
Area (Sq Km)	219.07
GDP per Capita (\$)	42991
GDP Growth Rate (%)	0.83



Table A2.2 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.513	35	A+	Z3.4 Status of Talent	0.419	78	A
Nominal/Real Exchange Rate Ratio	0.021	442	C--	Z3.5 Education Development	0.433	92	A-
GDP	0.054	79	A	Z3.6 Cost of Labor Force	0.580	101	A-
GDP per Capita	0.685	65	A	Z4 Hard Environment	0.747	35	A+
GDP per Square Kilometer	0.227	54	A+	Z4.1 Basic Elements	0.687	117	A-
Real Economic Growth Rate (5 Years)	0.138	455	D++	Z4.2 Financial Market	0.641	51	A+
Employment Rate	0.903	298	B--	Z4.3 The Ability for Innovation	0.778	9	A++
Labor Productivity	0.565	56	A+	Z4.4 Market Scale	0.443	62	A
Number of International Patents	0.261	74	A	Z5 Soft Environment	0.743	78	A
Multinational Corporation Score	0.398	27	A++	Z5.1 Market System	0.563	98	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.724	84	A
Z1 Enterprise Quality	0.808	45	A+	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.750	52	A+	Z5.4 Public Service	0.550	80	A
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.854	21	A++
Z1.4 Enterprise Operation	0.661	51	A+	Z6 Living Environment	0.722	138	A--
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.659	101	A-
Z1.6 Enterprise Performance	0.600	55	A+	Z6.2 Environmental Quality	0.924	74	A
Z2 Industry Structure	0.645	20	A++	Z6.3 Shopping Environment	0.924	11	A++
Z2.1 Manufacturing Development	0.768	22	A++	Z6.4 Dining & Restaurant	0.477	149	A--
Z2.2 Service Industry Development	0.726	13	A++	Z6.5 Housing	0.630	116	A-
Z2.3 Financial Sector Development	0.461	33	A+	Z6.6 Culture and Entertainment	0.345	130	A--
Z2.4 High-Tech Industry Development	0.602	29	A++	Z6.7 Social Security	0.495	146	A--
Z3 Human Resource	0.737	82	A	Z7 Global Connectivity	0.771	6	A++
Z3.1 Health	0.911	83	A	Z7.1 Location Convenience	1.000	1	A++
Z3.2 Literacy Quality	0.779	41	A+	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.405	109	A-	Z7.3 Water Transportation	0.390	30	A++
				Z7.4 Air Transportation	0.343	14	A++
				Z7.5 Information Connectivity	0.610	16	A++
				Z7.6 Residents Connectivity	0.658	5	A++
				Z7.7 Enterprises Connectivity	0.470	20	A++

ATHENS CITY COMPETITIVENESS

Table A2.3 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	76.01
Area (Sq Km)	428.00
GDP per Capita (\$)	25035
GDP Growth Rate (%)	4.06



Table A2.4 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.396	104	A-	Z3.4 Status of Talent	0.597	18	A++
Nominal/Real Exchange Rate Ratio	0.044	313	C++	Z3.5 Education Development	0.410	103	A-
GDP	0.032	160	B++	Z3.6 Cost of Labor Force	0.623	84	A
GDP per Capita	0.397	184	B+	Z4 Hard Environment	0.529	134	A--
GDP per Square Kilometer	0.069	194	B+	Z4.1 Basic Elements	0.623	134	A--
Real Economic Growth Rate (5 Years)	0.248	268	B-	Z4.2 Financial Market	0.394	141	A--
Employment Rate	0.894	326	C++	Z4.3 The Ability for Innovation	0.481	89	A
Labor Productivity	0.360	163	B++	Z4.4 Market Scale	0.305	107	A-
Number of International Patents	0.101	134	A--	Z5 Soft Environment	0.737	81	A
Multinational Corporation Score	0.309	43	A+	Z5.1 Market System	0.381	136	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.690	88	A
Z1 Enterprise Quality	0.768	61	A	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.536	90	A
Z1.2 Corporate System	0.850	41	A+	Z5.5 Strategy and Experience	0.800	39	A+
Z1.3 Enterprise Management	0.767	87	A	Z5.6 Paying Taxes	0.751	96	A-
Z1.4 Enterprise Operation	0.673	47	A+	Z6 Living Environment	0.929	9	A++
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.896	11	A++
Z1.6 Enterprise Performance	0.333	116	A-	Z6.2 Environmental Quality	0.940	57	A+
Z2 Industry Structure	0.577	43	A+	Z6.3 Shopping Environment	0.764	65	A
Z2.1 Manufacturing Development	0.676	64	A	Z6.4 Dining & Restaurant	0.733	111	A-
Z2.2 Service Industry Development	0.600	46	A+	Z6.5 Housing	0.699	66	A
Z2.3 Financial Sector Development	0.488	28	A++	Z6.6 Culture and Entertainment	0.726	7	A++
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.974	2	A++
Z3 Human Resource	0.773	45	A+	Z7 Global Connectivity	0.663	19	A++
Z3.1 Health	0.945	40	A+	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.753	45	A+	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.373	129	A--	Z7.3 Water Transportation	0.304	54	A+
				Z7.4 Air Transportation	0.133	64	A
				Z7.5 Information Connectivity	0.490	39	A+
				Z7.6 Residents Connectivity	0.789	3	A++
				Z7.7 Enterprises Connectivity	0.313	73	A

ATLANTA CITY COMPETITIVENESS

Table A2.5 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	47.65
Area (Sq Km)	339.80
GDP per Capita (\$)	43677
GDP Growth Rate (%)	2.05



Table A2.6 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.504	38	A+	Z3.4 Status of Talent	0.411	81	A
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.588	20	A++
GDP	0.035	142	A--	Z3.6 Cost of Labor Force	0.377	146	A--
GDP per Capita	0.696	57	A+	Z4 Hard Environment	0.812	11	A++
GDP per Square Kilometer	0.095	160	B++	Z4.1 Basic Elements	0.874	23	A++
Real Economic Growth Rate (5 Years)	0.179	391	C-	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.881	363	C	Z4.3 The Ability for Innovation	0.598	39	A+
Labor Productivity	0.665	19	A++	Z4.4 Market Scale	0.630	13	A++
Number of International Patents	0.328	46	A+	Z5 Soft Environment	0.851	33	A+
Multinational Corporation Score	0.325	41	A+	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.781	59	A+	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.750	52	A+	Z5.4 Public Service	0.772	29	A++
Z1.2 Corporate System	0.950	8	A++	Z5.5 Strategy and Experience	0.800	39	A+
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.695	37	A+	Z6 Living Environment	0.854	34	A+
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.807	49	A+
Z1.6 Enterprise Performance	0.467	94	A-	Z6.2 Environmental Quality	0.979	13	A++
Z2 Industry Structure	0.689	11	A++	Z6.3 Shopping Environment	0.742	77	A
Z2.1 Manufacturing Development	0.763	23	A++	Z6.4 Dining & Restaurant	0.995	3	A++
Z2.2 Service Industry Development	0.701	18	A++	Z6.5 Housing	0.729	44	A+
Z2.3 Financial Sector Development	0.480	29	A++	Z6.6 Culture and Entertainment	0.369	126	A--
Z2.4 High-Tech Industry Development	0.788	4	A++	Z6.7 Social Security	0.643	132	A--
Z3 Human Resource	0.706	112	A-	Z7 Global Connectivity	0.539	48	A+
Z3.1 Health	0.864	120	A-	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.791	37	A+	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.348	142	A--	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.494	6	A++
				Z7.5 Information Connectivity	0.488	41	A+
				Z7.6 Residents Connectivity	0.132	77	A
				Z7.7 Enterprises Connectivity	0.535	11	A++

AUCKLAND CITY COMPETITIVENESS

Table A2.7 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	130.31
Area (Sq Km)	502.00
GDP per Capita (\$)	32024
GDP Growth Rate (%)	3.91



Table A2.8 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.478	51	A+	Z3.4 Status of Talent	0.478	35	A+
Nominal/Real Exchange Rate Ratio	0.033	352	C+	Z3.5 Education Development	0.417	101	A-
GDP	0.071	58	A+	Z3.6 Cost of Labor Force	0.755	43	A+
GDP per Capita	0.509	146	A--	Z4 Hard Environment	0.612	97	A-
GDP per Square Kilometer	0.129	118	A-	Z4.1 Basic Elements	0.752	93	A-
Real Economic Growth Rate (5 Years)	0.243	278	B--	Z4.2 Financial Market	0.480	98	A-
Employment Rate	0.960	76	A	Z4.3 The Ability for Innovation	0.502	78	A
Labor Productivity	0.308	184	B+	Z4.4 Market Scale	0.353	94	A-
Number of International Patents	0.193	91	A-	Z5 Soft Environment	0.893	16	A++
Multinational Corporation Score	0.354	34	A+	Z5.1 Market System	0.649	41	A+
Subentry Competitiveness				Z5.2 Market Regulation	1.000	1	A++
Z1 Enterprise Quality	0.714	78	A	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.750	52	A+	Z5.4 Public Service	0.701	35	A+
Z1.2 Corporate System	0.750	70	A	Z5.5 Strategy and Experience	0.900	26	A++
Z1.3 Enterprise Management	0.900	48	A+	Z5.6 Paying Taxes	0.870	10	A++
Z1.4 Enterprise Operation	0.656	54	A+	Z6 Living Environment	0.918	10	A++
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.882	17	A++
Z1.6 Enterprise Performance	0.467	94	A-	Z6.2 Environmental Quality	0.937	59	A+
Z2 Industry Structure	0.531	61	A	Z6.3 Shopping Environment	0.801	44	A+
Z2.1 Manufacturing Development	0.691	57	A+	Z6.4 Dining & Restaurant	0.888	36	A+
Z2.2 Service Industry Development	0.612	39	A+	Z6.5 Housing	0.728	45	A+
Z2.3 Financial Sector Development	0.279	79	A	Z6.6 Culture and Entertainment	0.536	24	A++
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.887	23	A++
Z3 Human Resource	0.792	28	A++	Z7 Global Connectivity	0.558	37	A+
Z3.1 Health	0.940	46	A+	Z7.1 Location Convenience	0.532	74	A
Z3.2 Literacy Quality	0.651	90	A	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.554	31	A+	Z7.3 Water Transportation	0.336	45	A+
				Z7.4 Air Transportation	0.105	79	A
				Z7.5 Information Connectivity	0.393	74	A
				Z7.6 Residents Connectivity	0.448	18	A++
				Z7.7 Enterprises Connectivity	0.303	79	A

AUSTIN CITY COMPETITIVENESS

Table A2.9 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	69.13
Area (Sq Km)	600.90
GDP per Capita (\$)	46763
GDP Growth Rate (%)	3.16



Table A2.10 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.475	53	A+	Z3.4 Status of Talent	0.492	31	A+
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.457	79	A
GDP	0.055	77	A	Z3.6 Cost of Labor Force	0.652	74	A
GDP per Capita	0.745	36	A+	Z4 Hard Environment	0.779	20	A++
GDP per Square Kilometer	0.084	174	B++	Z4.1 Basic Elements	0.846	42	A+
Real Economic Growth Rate (5 Years)	0.217	323	C++	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.916	258	B-	Z4.3 The Ability for Innovation	0.663	25	A++
Labor Productivity	0.552	59	A+	Z4.4 Market Scale	0.481	42	A+
Number of International Patents	0.385	27	A++	Z5 Soft Environment	0.873	23	A++
Multinational Corporation Score	0.116	129	A--	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.867	31	A+	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.650	85	A	Z5.4 Public Service	0.791	15	A++
Z1.2 Corporate System	0.850	41	A+	Z5.5 Strategy and Experience	0.900	26	A++
Z1.3 Enterprise Management	0.900	48	A+	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.598	69	A	Z6 Living Environment	0.855	31	A+
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.857	28	A++
Z1.6 Enterprise Performance	0.967	2	A++	Z6.2 Environmental Quality	0.947	50	A+
Z2 Industry Structure	0.528	65	A	Z6.3 Shopping Environment	0.753	71	A
Z2.1 Manufacturing Development	0.776	18	A++	Z6.4 Dining & Restaurant	0.800	88	A
Z2.2 Service Industry Development	0.431	107	A-	Z6.5 Housing	0.771	23	A++
Z2.3 Financial Sector Development	0.232	101	A-	Z6.6 Culture and Entertainment	0.440	73	A
Z2.4 High-Tech Industry Development	0.653	14	A++	Z6.7 Social Security	0.705	102	A-
Z3 Human Resource	0.791	31	A+	Z7 Global Connectivity	0.417	103	A-
Z3.1 Health	0.904	89	A	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.838	16	A++	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.445	76	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.113	76	A
				Z7.5 Information Connectivity	0.473	44	A+
				Z7.6 Residents Connectivity	0.135	76	A
				Z7.7 Enterprises Connectivity	0.325	66	A

BALTIMORE CITY COMPETITIVENESS

Table A2.11 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	63.64
Area (Sq Km)	208.00
GDP per Capita (\$)	46985
GDP Growth Rate (%)	2.11



Table A2.12 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.482	50	A+	Z3.4 Status of Talent	0.398	86	A
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.548	28	A++
GDP	0.051	89	A	Z3.6 Cost of Labor Force	0.548	111	A-
GDP per Capita	0.749	34	A+	Z4 Hard Environment	0.757	26	A++
GDP per Square Kilometer	0.223	56	A+	Z4.1 Basic Elements	0.847	40	A+
Real Economic Growth Rate (5 Years)	0.181	386	C	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.856	400	C-	Z4.3 The Ability for Innovation	0.589	45	A+
Labor Productivity	0.705	10	A++	Z4.4 Market Scale	0.478	43	A+
Number of International Patents	0.265	71	A	Z5 Soft Environment	0.842	37	A+
Multinational Corporation Score	0.093	162	B++	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.844	37	A+	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.822	10	A++
Z1.2 Corporate System	0.950	8	A++	Z5.5 Strategy and Experience	0.800	39	A+
Z1.3 Enterprise Management	0.967	12	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.692	39	A+	Z6 Living Environment	0.804	92	A-
Z1.5 Brand	0.600	70	A	Z6.1 Natural Environment	0.697	85	A
Z1.6 Enterprise Performance	0.633	48	A+	Z6.2 Environmental Quality	0.972	23	A++
Z2 Industry Structure	0.494	86	A	Z6.3 Shopping Environment	0.698	109	A-
Z2.1 Manufacturing Development	0.689	59	A+	Z6.4 Dining & Restaurant	0.875	41	A+
Z2.2 Service Industry Development	0.443	106	A-	Z6.5 Housing	0.651	107	A-
Z2.3 Financial Sector Development	0.304	67	A	Z6.6 Culture and Entertainment	0.369	126	A--
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.694	108	A-
Z3 Human Resource	0.710	108	A-	Z7 Global Connectivity	0.655	21	A++
Z3.1 Health	0.878	117	A-	Z7.1 Location Convenience	1.000	1	A++
Z3.2 Literacy Quality	0.662	80	A	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.366	132	A--	Z7.3 Water Transportation	0.409	27	A++
				Z7.4 Air Transportation	0.197	46	A+
				Z7.5 Information Connectivity	0.438	53	A+
				Z7.6 Residents Connectivity	0.054	112	A-
				Z7.7 Enterprises Connectivity	0.441	27	A++

BANGALORE CITY COMPETITIVENESS

Table A2.13 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	637.67
Area (Sq Km)	741.00
GDP per Capita (\$)	1326
GDP Growth Rate (%)	10.35



Table A2.14 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.255	236	B	Z3.4 Status of Talent	0.086	130	A--
Nominal/Real Exchange Rate Ratio	0.374	12	A++	Z3.5 Education Development	0.452	83	A
GDP	0.014	278	B--	Z3.6 Cost of Labor Force	0.998	2	A++
GDP per Capita	0.018	430	C--	Z4 Hard Environment	0.549	118	A-
GDP per Square Kilometer	0.018	305	C++	Z4.1 Basic Elements	0.763	89	A
Real Economic Growth Rate (5 Years)	0.463	93	A-	Z4.2 Financial Market	0.456	110	A-
Employment Rate	0.941	155	B++	Z4.3 The Ability for Innovation	0.440	99	A-
Labor Productivity	0.019	436	C--	Z4.4 Market Scale	0.213	131	A--
Number of International Patents	0.115	126	A--	Z5 Soft Environment	0.596	122	A--
Multinational Corporation Score	0.222	66	A	Z5.1 Market System	0.308	146	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.413	145	A--
Z1 Enterprise Quality	0.813	43	A+	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.850	23	A++	Z5.4 Public Service	0.538	87	A
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.733	93	A-	Z5.6 Paying Taxes	0.526	144	A--
Z1.4 Enterprise Operation	0.655	55	A+	Z6 Living Environment	0.689	143	A--
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.581	128	A--
Z1.6 Enterprise Performance	0.733	29	A++	Z6.2 Environmental Quality	0.780	105	A-
Z2 Industry Structure	0.497	81	A	Z6.3 Shopping Environment	0.480	146	A--
Z2.1 Manufacturing Development	0.517	123	A--	Z6.4 Dining & Restaurant	0.828	71	A
Z2.2 Service Industry Development	0.534	72	A	Z6.5 Housing	0.289	147	A--
Z2.3 Financial Sector Development	0.284	76	A	Z6.6 Culture and Entertainment	0.464	53	A+
Z2.4 High-Tech Industry Development	0.637	20	A++	Z6.7 Social Security	0.824	69	A
Z3 Human Resource	0.636	147	A--	Z7 Global Connectivity	0.327	135	A--
Z3.1 Health	0.597	145	A--	Z7.1 Location Convenience	0.140	140	A--
Z3.2 Literacy Quality	0.443	148	A--	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.468	59	A+	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.085	88	A
				Z7.5 Information Connectivity	0.351	98	A-
				Z7.6 Residents Connectivity	0.018	132	A--
				Z7.7 Enterprises Connectivity	0.274	96	A-

BANGKOK CITY COMPETITIVENESS

Table A2.15 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	664.26
Area (Sq Km)	1568.74
GDP per Capita (\$)	8574
GDP Growth Rate (%)	6.78



Table A2.16 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.331	155	B++	Z3.4 Status of Talent	0.291	112	A-
Nominal/Real Exchange Rate Ratio	0.206	142	A--	Z3.5 Education Development	0.574	21	A++
GDP	0.097	41	A+	Z3.6 Cost of Labor Force	0.909	8	A++
GDP per Capita	0.134	247	B-	Z4 Hard Environment	0.642	85	A
GDP per Square Kilometer	0.056	214	B	Z4.1 Basic Elements	0.928	6	A++
Real Economic Growth Rate (5 Years)	0.341	175	B++	Z4.2 Financial Market	0.545	70	A
Employment Rate	0.907	290	B--	Z4.3 The Ability for Innovation	0.372	119	A-
Labor Productivity	0.097	265	B-	Z4.4 Market Scale	0.344	97	A-
Number of International Patents	0.019	224	B	Z5 Soft Environment	0.602	121	A--
Multinational Corporation Score	0.441	21	A++	Z5.1 Market System	0.484	116	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.527	118	A-
Z1 Enterprise Quality	0.550	125	A--	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.450	135	A--	Z5.4 Public Service	0.521	102	A-
Z1.2 Corporate System	0.550	121	A--	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.567	133	A--	Z5.6 Paying Taxes	0.686	105	A-
Z1.4 Enterprise Operation	0.626	64	A	Z6 Living Environment	0.743	134	A--
Z1.5 Brand	0.300	123	A--	Z6.1 Natural Environment	0.683	91	A-
Z1.6 Enterprise Performance	0.533	70	A	Z6.2 Environmental Quality	0.776	108	A-
Z2 Industry Structure	0.557	47	A+	Z6.3 Shopping Environment	0.762	68	A
Z2.1 Manufacturing Development	0.621	93	A-	Z6.4 Dining & Restaurant	0.732	112	A-
Z2.2 Service Industry Development	0.760	8	A++	Z6.5 Housing	0.656	101	A-
Z2.3 Financial Sector Development	0.438	39	A+	Z6.6 Culture and Entertainment	0.202	149	A--
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.773	86	A
Z3 Human Resource	0.771	48	A+	Z7 Global Connectivity	0.469	75	A
Z3.1 Health	0.681	139	A--	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.539	137	A--	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.697	12	A++	Z7.3 Water Transportation	0.324	48	A+
				Z7.4 Air Transportation	0.256	31	A+
				Z7.5 Information Connectivity	0.455	48	A+
				Z7.6 Residents Connectivity	0.166	69	A
				Z7.7 Enterprises Connectivity	0.371	45	A+

BARCELONA CITY COMPETITIVENESS

Table A2.17 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	159.31
Area (Sq Km)	914.00
GDP per Capita (\$)	20125
GDP Growth Rate (%)	2.50



Table A2.18 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.380	115	A-	Z3.4 Status of Talent	0.534	29	A++
Nominal/Real Exchange Rate Ratio	0.034	340	C+	Z3.5 Education Development	0.472	64	A
GDP	0.050	91	A-	Z3.6 Cost of Labor Force	0.694	54	A+
GDP per Capita	0.319	191	B+	Z4 Hard Environment	0.651	79	A
GDP per Square Kilometer	0.050	224	B	Z4.1 Basic Elements	0.641	130	A--
Real Economic Growth Rate (5 Years)	0.195	364	C	Z4.2 Financial Market	0.587	60	A+
Employment Rate	0.924	227	B	Z4.3 The Ability for Innovation	0.677	19	A++
Labor Productivity	0.255	197	B+	Z4.4 Market Scale	0.316	104	A-
Number of International Patents	0.268	70	A	Z5 Soft Environment	0.771	66	A
Multinational Corporation Score	0.294	48	A+	Z5.1 Market System	0.504	113	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.597	104	A-
Z1 Enterprise Quality	0.714	78	A	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	0.550	110	A-	Z5.4 Public Service	0.448	122	A--
Z1.2 Corporate System	0.950	8	A++	Z5.5 Strategy and Experience	0.900	26	A++
Z1.3 Enterprise Management	0.667	106	A-	Z5.6 Paying Taxes	0.797	76	A
Z1.4 Enterprise Operation	0.456	100	A-	Z6 Living Environment	0.915	11	A++
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.914	7	A++
Z1.6 Enterprise Performance	0.500	81	A	Z6.2 Environmental Quality	0.937	59	A+
Z2 Industry Structure	0.497	81	A	Z6.3 Shopping Environment	0.861	22	A++
Z2.1 Manufacturing Development	0.561	110	A-	Z6.4 Dining & Restaurant	0.816	78	A
Z2.2 Service Industry Development	0.570	57	A+	Z6.5 Housing	0.833	16	A++
Z2.3 Financial Sector Development	0.314	66	A	Z6.6 Culture and Entertainment	0.417	93	A-
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.868	28	A++
Z3 Human Resource	0.792	28	A++	Z7 Global Connectivity	0.669	18	A++
Z3.1 Health	0.976	13	A++	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.680	71	A	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.437	83	A	Z7.3 Water Transportation	0.473	17	A++
				Z7.4 Air Transportation	0.255	33	A+
				Z7.5 Information Connectivity	0.643	10	A++
				Z7.6 Residents Connectivity	0.333	27	A++
				Z7.7 Enterprises Connectivity	0.455	23	A++

BEIJING CITY COMPETITIVENESS

Table A2.19 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	1538.00
Area (Sq Km)	12188.00
GDP per Capita (\$)	6310
GDP Growth Rate (%)	11.68



Table A2.20 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.458	66	A	Z3.4 Status of Talent	0.089	129	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.750	5	A++
GDP	0.141	23	A++	Z3.6 Cost of Labor Force	0.724	51	A+
GDP per Capita	0.098	277	B--	Z4 Hard Environment	0.691	57	A+
GDP per Square Kilometer	0.010	358	C+	Z4.1 Basic Elements	0.743	99	A-
Real Economic Growth Rate (5 Years)	0.509	79	A	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.983	14	A++	Z4.3 The Ability for Innovation	0.609	36	A+
Labor Productivity	0.070	291	B--	Z4.4 Market Scale	0.576	21	A++
Number of International Patents	0.319	56	A+	Z5 Soft Environment	0.666	100	A-
Multinational Corporation Score	0.592	7	A++	Z5.1 Market System	0.592	62	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.592	114	A-	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.550	110	A-	Z5.4 Public Service	0.455	119	A-
Z1.2 Corporate System	0.600	110	A-	Z5.5 Strategy and Experience	0.800	39	A+
Z1.3 Enterprise Management	0.667	106	A-	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.406	110	A-	Z6 Living Environment	0.820	76	A
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.741	76	A
Z1.6 Enterprise Performance	0.633	48	A+	Z6.2 Environmental Quality	0.577	136	A--
Z2 Industry Structure	0.643	22	A++	Z6.3 Shopping Environment	0.774	54	A+
Z2.1 Manufacturing Development	0.748	32	A+	Z6.4 Dining & Restaurant	0.904	24	A++
Z2.2 Service Industry Development	0.702	17	A++	Z6.5 Housing	0.599	129	A--
Z2.3 Financial Sector Development	0.553	21	A++	Z6.6 Culture and Entertainment	0.607	14	A++
Z2.4 High-Tech Industry Development	0.547	48	A+	Z6.7 Social Security	0.852	39	A+
Z3 Human Resource	0.813	16	A++	Z7 Global Connectivity	0.482	69	A
Z3.1 Health	0.949	34	A+	Z7.1 Location Convenience	0.216	128	A--
Z3.2 Literacy Quality	0.607	107	A-	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.772	6	A++	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.253	34	A+
				Z7.5 Information Connectivity	0.632	13	A++
				Z7.6 Residents Connectivity	0.025	129	A--
				Z7.7 Enterprises Connectivity	0.478	19	A++

BERLIN CITY COMPETITIVENESS

Table A2.21 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	339.52
Area (Sq Km)	891.85
GDP per Capita (\$)	30311
GDP Growth Rate (%)	0.53



Table A2.22 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.460	63	A	Z3.4 Status of Talent	0.458	42	A+
Nominal/Real Exchange Rate Ratio	0.026	415	C-	Z3.5 Education Development	0.492	48	A+
GDP	0.176	15	A++	Z3.6 Cost of Labor Force	0.630	79	A
GDP per Capita	0.482	162	B++	Z4 Hard Environment	0.710	50	A+
GDP per Square Kilometer	0.179	75	A	Z4.1 Basic Elements	0.586	144	A--
Real Economic Growth Rate (5 Years)	0.127	483	D+	Z4.2 Financial Market	0.584	62	A
Employment Rate	0.718	467	D++	Z4.3 The Ability for Innovation	0.863	5	A++
Labor Productivity	0.412	131	A--	Z4.4 Market Scale	0.391	86	A
Number of International Patents	0.437	19	A++	Z5 Soft Environment	0.725	84	A
Multinational Corporation Score	0.222	66	A	Z5.1 Market System	0.607	56	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.876	9	A++
Z1 Enterprise Quality	0.939	5	A++	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.900	14	A++	Z5.4 Public Service	0.585	58	A+
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.900	48	A+	Z5.6 Paying Taxes	0.825	28	A++
Z1.4 Enterprise Operation	0.797	16	A++	Z6 Living Environment	0.874	21	A++
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.647	105	A-
Z1.6 Enterprise Performance	0.767	23	A++	Z6.2 Environmental Quality	0.950	45	A+
Z2 Industry Structure	0.519	73	A	Z6.3 Shopping Environment	0.935	8	A++
Z2.1 Manufacturing Development	0.673	67	A	Z6.4 Dining & Restaurant	0.857	48	A+
Z2.2 Service Industry Development	0.575	55	A+	Z6.5 Housing	0.883	10	A++
Z2.3 Financial Sector Development	0.284	76	A	Z6.6 Culture and Entertainment	0.476	46	A+
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.643	132	A--
Z3 Human Resource	0.755	64	A	Z7 Global Connectivity	0.584	33	A+
Z3.1 Health	0.949	34	A+	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.657	83	A	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.430	87	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.147	59	A+
				Z7.5 Information Connectivity	0.807	3	A++
				Z7.6 Residents Connectivity	0.220	52	A+
				Z7.7 Enterprises Connectivity	0.373	44	A+

BOGOTA CITY COMPETITIVENESS

Table A2.23 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	716.80
Area (Sq Km)	1587.00
GDP per Capita (\$)	3113
GDP Growth Rate (%)	9.62



Table A2.24 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.224	267	B-	Z3.4 Status of Talent	0.448	48	A+
Nominal/Real Exchange Rate Ratio	0.249	135	A--	Z3.5 Education Development	0.472	64	A
GDP	0.041	127	A--	Z3.6 Cost of Labor Force	0.943	3	A++
GDP per Capita	0.047	369	C	Z4 Hard Environment	0.514	143	A--
GDP per Square Kilometer	0.024	283	B--	Z4.1 Basic Elements	0.772	84	A
Real Economic Growth Rate (5 Years)	0.438	112	A-	Z4.2 Financial Market	0.340	145	A--
Employment Rate	0.833	423	C--	Z4.3 The Ability for Innovation	0.359	123	A--
Labor Productivity	0.027	412	C-	Z4.4 Market Scale	0.284	110	A-
Number of International Patents	0.008	279	B--	Z5 Soft Environment	0.587	125	A--
Multinational Corporation Score	0.232	62	A	Z5.1 Market System	0.331	145	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.748	70	A
Z1 Enterprise Quality	0.549	126	A--	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.450	135	A--	Z5.4 Public Service	0.514	108	A-
Z1.2 Corporate System	0.650	97	A-	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.567	133	A--	Z5.6 Paying Taxes	0.539	142	A--
Z1.4 Enterprise Operation	0.387	113	A-	Z6 Living Environment	0.648	147	A--
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.622	114	A-
Z1.6 Enterprise Performance	0.567	62	A	Z6.2 Environmental Quality	0.863	97	A-
Z2 Industry Structure	0.521	70	A	Z6.3 Shopping Environment	0.572	141	A--
Z2.1 Manufacturing Development	0.678	63	A	Z6.4 Dining & Restaurant	0.587	147	A--
Z2.2 Service Industry Development	0.583	51	A+	Z6.5 Housing	0.632	114	A-
Z2.3 Financial Sector Development	0.413	43	A+	Z6.6 Culture and Entertainment	0.321	139	A--
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.399	148	A--
Z3 Human Resource	0.856	6	A++	Z7 Global Connectivity	0.296	143	A--
Z3.1 Health	0.671	141	A--	Z7.1 Location Convenience	0.140	140	A--
Z3.2 Literacy Quality	0.598	115	A-	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.965	2	A++	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.058	104	A-
				Z7.5 Information Connectivity	0.342	104	A-
				Z7.6 Residents Connectivity	0.085	91	A-
				Z7.7 Enterprises Connectivity	0.273	98	A-

BOSTON CITY COMPETITIVENESS

Table A2.25 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	59.66
Area (Sq Km)	122.20
GDP per Capita (\$)	53456
GDP Growth Rate (%)	1.04



Table A2.26 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.597	13	A++	Z3.4 Status of Talent	0.581	20	A++
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.646	9	A++
GDP	0.054	80	A	Z3.6 Cost of Labor Force	0.443	137	A--
GDP per Capita	0.852	13	A++	Z4 Hard Environment	0.878	3	A++
GDP per Square Kilometer	0.406	16	A++	Z4.1 Basic Elements	0.780	79	A
Real Economic Growth Rate (5 Years)	0.145	443	C--	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.887	347	C+	Z4.3 The Ability for Innovation	0.890	4	A++
Labor Productivity	0.756	6	A++	Z4.4 Market Scale	0.659	10	A++
Number of International Patents	0.414	23	A++	Z5 Soft Environment	0.926	4	A++
Multinational Corporation Score	0.250	57	A+	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.923	9	A++	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	0.950	9	A++	Z5.4 Public Service	0.785	20	A++
Z1.2 Corporate System	0.950	8	A++	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.905	5	A++	Z6 Living Environment	0.773	122	A--
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.657	102	A-
Z1.6 Enterprise Performance	0.633	48	A+	Z6.2 Environmental Quality	0.968	30	A++
Z2 Industry Structure	0.622	26	A++	Z6.3 Shopping Environment	0.753	71	A
Z2.1 Manufacturing Development	0.774	20	A++	Z6.4 Dining & Restaurant	0.593	146	A--
Z2.2 Service Industry Development	0.569	59	A+	Z6.5 Housing	0.659	99	A-
Z2.3 Financial Sector Development	0.536	22	A++	Z6.6 Culture and Entertainment	0.417	93	A-
Z2.4 High-Tech Industry Development	0.586	40	A+	Z6.7 Social Security	0.724	98	A-
Z3 Human Resource	0.789	34	A+	Z7 Global Connectivity	0.713	10	A++
Z3.1 Health	0.936	53	A+	Z7.1 Location Convenience	1.000	1	A++
Z3.2 Literacy Quality	0.793	36	A+	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.377	124	A--	Z7.3 Water Transportation	0.316	51	A+
				Z7.4 Air Transportation	0.260	30	A++
				Z7.5 Information Connectivity	0.615	15	A++
				Z7.6 Residents Connectivity	0.328	29	A++
				Z7.7 Enterprises Connectivity	0.533	12	A++

BRISBANE CITY COMPETITIVENESS

Table A2.27 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	179.09
Area (Sq Km)	1367.00
GDP per Capita (\$)	36285
GDP Growth Rate (%)	1.47



Table A2.28 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.381	113	A-	Z3.4 Status of Talent	0.389	91	A-
Nominal/Real Exchange Rate Ratio	0.036	333	C+	Z3.5 Education Development	0.379	122	A--
GDP	0.111	32	A+	Z3.6 Cost of Labor Force	0.666	66	A
GDP per Capita	0.578	113	A-	Z4 Hard Environment	0.665	69	A
GDP per Square Kilometer	0.074	182	B+	Z4.1 Basic Elements	0.839	46	A+
Real Economic Growth Rate (5 Years)	0.159	414	C-	Z4.2 Financial Market	0.489	96	A-
Employment Rate	0.947	138	A--	Z4.3 The Ability for Innovation	0.495	80	A
Labor Productivity	0.431	116	A-	Z4.4 Market Scale	0.447	58	A+
Number of International Patents	0.116	124	A--	Z5 Soft Environment	0.750	75	A
Multinational Corporation Score	0.162	93	A-	Z5.1 Market System	0.639	50	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.812	57	A+
Z1 Enterprise Quality	0.672	92	A-	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.550	110	A-	Z5.4 Public Service	0.564	75	A
Z1.2 Corporate System	0.600	110	A-	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.767	87	A	Z5.6 Paying Taxes	0.818	35	A+
Z1.4 Enterprise Operation	0.843	11	A++	Z6 Living Environment	0.951	5	A++
Z1.5 Brand	0.600	70	A	Z6.1 Natural Environment	1.000	1	A++
Z1.6 Enterprise Performance	0.333	116	A-	Z6.2 Environmental Quality	0.872	95	A-
Z2 Industry Structure	0.472	101	A-	Z6.3 Shopping Environment	0.851	24	A++
Z2.1 Manufacturing Development	0.610	98	A-	Z6.4 Dining & Restaurant	0.844	55	A+
Z2.2 Service Industry Development	0.529	80	A	Z6.5 Housing	1.000	1	A++
Z2.3 Financial Sector Development	0.209	113	A-	Z6.6 Culture and Entertainment	0.429	82	A
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.870	27	A++
Z3 Human Resource	0.770	50	A+	Z7 Global Connectivity	0.542	47	A+
Z3.1 Health	0.952	30	A++	Z7.1 Location Convenience	0.532	74	A
Z3.2 Literacy Quality	0.830	18	A++	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.473	58	A+	Z7.3 Water Transportation	0.371	33	A+
				Z7.4 Air Transportation	0.104	80	A
				Z7.5 Information Connectivity	0.412	65	A
				Z7.6 Residents Connectivity	0.219	53	A+
				Z7.7 Enterprises Connectivity	0.291	86	A

BRUSSELS CITY COMPETITIVENESS

Table A2.29 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	13.89
Area (Sq Km)	162.00
GDP per Capita (\$)	44 581
GDP Growth Rate (%)	2.22



Table A2.30 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.455	69	A	Z3.4 Status of Talent	0.546	26	A++
Nominal/Real Exchange Rate Ratio	0.025	432	C--	Z3.5 Education Development	0.448	85	A
GDP	0.010	320	C++	Z3.6 Cost of Labor Force	0.544	113	A-
GDP per Capita	0.710	46	A+	Z4 Hard Environment	0.579	104	A-
GDP per Square Kilometer	0.059	209	B+	Z4.1 Basic Elements	0.588	143	A--
Real Economic Growth Rate (5 Years)	0.185	380	C	Z4.2 Financial Market	0.430	115	A-
Employment Rate	0.894	326	C++	Z4.3 The Ability for Innovation	0.513	73	A
Labor Productivity	0.628	30	A++	Z4.4 Market Scale	0.445	61	A
Number of International Patents	0.150	107	A-	Z5 Soft Environment	0.798	57	A+
Multinational Corporation Score	0.507	14	A++	Z5.1 Market System	0.550	107	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.823	22	A++
Z1 Enterprise Quality	0.802	47	A+	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.750	52	A+	Z5.4 Public Service	0.629	50	A+
Z1.2 Corporate System	0.800	57	A+	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.867	61	A	Z5.6 Paying Taxes	0.796	78	A
Z1.4 Enterprise Operation	0.728	29	A++	Z6 Living Environment	0.903	13	A++
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.626	111	A-
Z1.6 Enterprise Performance	0.467	94	A-	Z6.2 Environmental Quality	0.942	54	A+
Z2 Industry Structure	0.651	18	A++	Z6.3 Shopping Environment	0.913	12	A++
Z2.1 Manufacturing Development	0.839	8	A++	Z6.4 Dining & Restaurant	0.979	6	A++
Z2.2 Service Industry Development	0.701	18	A++	Z6.5 Housing	0.749	32	A+
Z2.3 Financial Sector Development	0.428	40	A+	Z6.6 Culture and Entertainment	0.631	12	A++
Z2.4 High-Tech Industry Development	0.614	26	A++	Z6.7 Social Security	0.729	94	A-
Z3 Human Resource	0.726	90	A	Z7 Global Connectivity	0.647	22	A++
Z3.1 Health	0.931	57	A+	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.647	93	A-	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.360	134	A--	Z7.3 Water Transportation	0.218	70	A
				Z7.4 Air Transportation	0.127	66	A
				Z7.5 Information Connectivity	0.432	56	A+
				Z7.6 Residents Connectivity	0.461	17	A++
				Z7.7 Enterprises Connectivity	0.505	14	A++

BUDAPEST CITY COMPETITIVENESS

Table A2.31 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	169.73
Area (Sq Km)	525.16
GDP per Capita (\$)	16895
GDP Growth Rate (%)	3.99

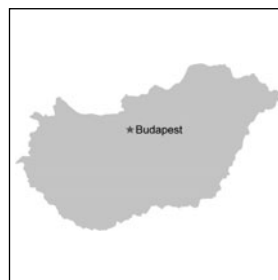


Table A2.32 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.404	99	A-	Z3.4 Status of Talent	0.446	49	A+
Nominal/Real Exchange Rate Ratio	0.083	269	B-	Z3.5 Education Development	0.462	74	A
GDP	0.049	97	A-	Z3.6 Cost of Labor Force	0.735	48	A+
GDP per Capita	0.267	197	B+	Z4 Hard Environment	0.553	117	A-
GDP per Square Kilometer	0.085	172	B++	Z4.1 Basic Elements	0.676	123	A--
Real Economic Growth Rate (5 Years)	0.246	273	B--	Z4.2 Financial Market	0.439	114	A-
Employment Rate	0.947	138	A--	Z4.3 The Ability for Innovation	0.509	75	A
Labor Productivity	0.232	201	B+	Z4.4 Market Scale	0.261	116	A-
Number of International Patents	0.153	102	A-	Z5 Soft Environment	0.646	105	A-
Multinational Corporation Score	0.352	35	A+	Z5.1 Market System	0.533	109	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.728	83	A
Z1 Enterprise Quality	0.669	93	A-	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.550	110	A-	Z5.4 Public Service	0.535	92	A-
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.867	61	A	Z5.6 Paying Taxes	0.660	110	A-
Z1.4 Enterprise Operation	0.460	99	A-	Z6 Living Environment	0.876	20	A++
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.739	78	A
Z1.6 Enterprise Performance	0.600	55	A+	Z6.2 Environmental Quality	0.944	52	A+
Z2 Industry Structure	0.523	69	A	Z6.3 Shopping Environment	0.708	106	A-
Z2.1 Manufacturing Development	0.614	95	A-	Z6.4 Dining & Restaurant	0.844	55	A+
Z2.2 Service Industry Development	0.605	43	A+	Z6.5 Housing	0.699	66	A
Z2.3 Financial Sector Development	0.329	58	A+	Z6.6 Culture and Entertainment	0.571	17	A++
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.899	22	A++
Z3 Human Resource	0.792	28	A++	Z7 Global Connectivity	0.464	81	A
Z3.1 Health	0.891	99	A-	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.855	12	A++	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.404	110	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.074	93	A-
				Z7.5 Information Connectivity	0.470	46	A+
				Z7.6 Residents Connectivity	0.271	39	A+
				Z7.7 Enterprises Connectivity	0.332	61	A

BUENOS AIRES CITY COMPETITIVENESS

Table A2.33 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	301.81
Area (Sq Km)	203.00
GDP per Capita (\$)	13196
GDP Growth Rate (%)	14.92



Table A2.34 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.533	24	A++	Z3.4 Status of Talent	0.455	44	A+
Nominal/Real Exchange Rate Ratio	0.221	138	A--	Z3.5 Education Development	0.553	26	A++
GDP	0.068	61	A	Z3.6 Cost of Labor Force	0.698	53	A+
GDP per Capita	0.208	213	B	Z4 Hard Environment	0.661	74	A
GDP per Square Kilometer	0.305	30	A++	Z4.1 Basic Elements	0.764	87	A
Real Economic Growth Rate (5 Years)	0.619	31	A+	Z4.2 Financial Market	0.781	2	A++
Employment Rate	0.885	352	C+	Z4.3 The Ability for Innovation	0.452	96	A-
Labor Productivity	0.166	228	B	Z4.4 Market Scale	0.258	117	A-
Number of International Patents	0.041	180	B++	Z5 Soft Environment	0.646	105	A-
Multinational Corporation Score	0.441	21	A++	Z5.1 Market System	0.517	112	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.679	90	A
Z1 Enterprise Quality	0.623	103	A-	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.500	126	A--	Z5.4 Public Service	0.432	132	A--
Z1.2 Corporate System	0.800	57	A+	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.667	106	A-	Z5.6 Paying Taxes	0.533	143	A--
Z1.4 Enterprise Operation	0.523	81	A	Z6 Living Environment	0.801	95	A-
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.839	36	A+
Z1.6 Enterprise Performance	0.533	70	A	Z6.2 Environmental Quality	0.792	103	A-
Z2 Industry Structure	0.544	53	A+	Z6.3 Shopping Environment	0.546	142	A--
Z2.1 Manufacturing Development	0.614	95	A-	Z6.4 Dining & Restaurant	0.762	101	A-
Z2.2 Service Industry Development	0.642	32	A+	Z6.5 Housing	0.680	84	A
Z2.3 Financial Sector Development	0.443	37	A+	Z6.6 Culture and Entertainment	0.452	64	A
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.868	28	A++
Z3 Human Resource	0.733	86	A	Z7 Global Connectivity	0.445	94	A-
Z3.1 Health	0.623	142	A--	Z7.1 Location Convenience	0.288	123	A--
Z3.2 Literacy Quality	0.671	76	A	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.510	44	A+	Z7.3 Water Transportation	0.284	61	A
				Z7.4 Air Transportation	0.072	94	A-
				Z7.5 Information Connectivity	0.463	47	A+
				Z7.6 Residents Connectivity	0.070	97	A-
				Z7.7 Enterprises Connectivity	0.332	61	A

BUSAN CITY COMPETITIVENESS

Table A2.35 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	365.78
Area (Sq Km)	764.43
GDP per Capita (\$)	12071
GDP Growth Rate (%)	3.14



Table A2.36 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.250	242	B-	Z3.4 Status of Talent	0.259	116	A-
Nominal/Real Exchange Rate Ratio	0.068	293	B--	Z3.5 Education Development	0.478	57	A+
GDP	0.075	53	A+	Z3.6 Cost of Labor Force	0.474	128	A--
GDP per Capita	0.190	220	B	Z4 Hard Environment	0.615	96	A-
GDP per Square Kilometer	0.090	168	B++	Z4.1 Basic Elements	0.836	47	A+
Real Economic Growth Rate (5 Years)	0.216	325	C++	Z4.2 Financial Market	0.491	95	A-
Employment Rate	0.951	125	A--	Z4.3 The Ability for Innovation	0.447	97	A-
Labor Productivity	0.166	227	B	Z4.4 Market Scale	0.323	99	A-
Number of International Patents	0.039	185	B+	Z5 Soft Environment	0.715	88	A
Multinational Corporation Score	0.048	259	B-	Z5.1 Market System	0.558	104	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.633	97	A-
Z1 Enterprise Quality	0.597	112	A-	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.400	144	A--	Z5.4 Public Service	0.616	52	A+
Z1.2 Corporate System	0.750	70	A	Z5.5 Strategy and Experience	0.800	39	A+
Z1.3 Enterprise Management	0.800	79	A	Z5.6 Paying Taxes	0.634	134	A--
Z1.4 Enterprise Operation	0.330	127	A--	Z6 Living Environment	0.793	106	A-
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.680	92	A-
Z1.6 Enterprise Performance	0.600	55	A+	Z6.2 Environmental Quality	0.591	133	A--
Z2 Industry Structure	0.405	122	A--	Z6.3 Shopping Environment	0.695	113	A-
Z2.1 Manufacturing Development	0.499	130	A--	Z6.4 Dining & Restaurant	0.870	44	A+
Z2.2 Service Industry Development	0.350	127	A--	Z6.5 Housing	0.703	61	A
Z2.3 Financial Sector Development	0.234	99	A-	Z6.6 Culture and Entertainment	0.440	73	A
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.910	15	A++
Z3 Human Resource	0.684	124	A--	Z7 Global Connectivity	0.497	59	A+
Z3.1 Health	0.924	68	A	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.675	74	A	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.464	62	A	Z7.3 Water Transportation	0.662	6	A++
				Z7.4 Air Transportation	0.064	100	A-
				Z7.5 Information Connectivity	0.238	139	A--
				Z7.6 Residents Connectivity	0.041	117	A-
				Z7.7 Enterprises Connectivity	0.228	141	A--

CAIRO CITY COMPETITIVENESS

Table A2.37 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	743.84
Area (Sq Km)	214.00
GDP per Capita (\$)	1916
GDP Growth Rate (%)	3.85



Table A2.38 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.213	286	B--	Z3.4 Status of Talent	0.437	59	A+
Nominal/Real Exchange Rate Ratio	0.282	124	A--	Z3.5 Education Development	0.373	127	A--
GDP	0.024	204	B+	Z3.6 Cost of Labor Force	0.854	19	A++
GDP per Capita	0.027	407	C-	Z4 Hard Environment	0.573	106	A-
GDP per Square Kilometer	0.103	148	A--	Z4.1 Basic Elements	0.779	80	A
Real Economic Growth Rate (5 Years)	0.241	283	B--	Z4.2 Financial Market	0.519	83	A
Employment Rate	0.871	379	C	Z4.3 The Ability for Innovation	0.337	134	A--
Labor Productivity	0.036	379	C	Z4.4 Market Scale	0.320	100	A-
Number of International Patents	0.020	222	B	Z5 Soft Environment	0.567	137	A--
Multinational Corporation Score	0.226	65	A	Z5.1 Market System	0.357	144	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.639	96	A-
Z1 Enterprise Quality	0.492	136	A--	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.400	144	A--	Z5.4 Public Service	0.537	89	A
Z1.2 Corporate System	0.650	97	A-	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.667	106	A-	Z5.6 Paying Taxes	0.588	140	A--
Z1.4 Enterprise Operation	0.323	128	A--	Z6 Living Environment	0.757	131	A--
Z1.5 Brand	0.300	123	A--	Z6.1 Natural Environment	0.933	4	A++
Z1.6 Enterprise Performance	0.367	109	A-	Z6.2 Environmental Quality	0.368	149	A--
Z2 Industry Structure	0.474	99	A-	Z6.3 Shopping Environment	0.578	140	A--
Z2.1 Manufacturing Development	0.595	103	A-	Z6.4 Dining & Restaurant	0.838	62	A
Z2.2 Service Industry Development	0.601	45	A+	Z6.5 Housing	0.556	137	A--
Z2.3 Financial Sector Development	0.227	105	A-	Z6.6 Culture and Entertainment	0.536	24	A++
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.858	35	A+
Z3 Human Resource	0.639	146	A--	Z7 Global Connectivity	0.385	114	A-
Z3.1 Health	0.602	143	A--	Z7.1 Location Convenience	0.216	128	A--
Z3.2 Literacy Quality	0.438	149	A--	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.355	138	A--	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.078	91	A-
				Z7.5 Information Connectivity	0.394	72	A
				Z7.6 Residents Connectivity	0.108	83	A
				Z7.7 Enterprises Connectivity	0.283	90	A

CALCUTTA CITY COMPETITIVENESS

Table A2.39 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	1427.70
Area (Sq Km)	1480.00
GDP per Capita (\$)	1538
GDP Growth Rate (%)	11.10



Table A2.40 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.186	333	C+	Z3.4 Status of Talent	0.086	130	A--
Nominal/Real Exchange Rate Ratio	0.374	12	A++	Z3.5 Education Development	0.469	71	A
GDP	0.037	134	A--	Z3.6 Cost of Labor Force	0.913	6	A++
GDP per Capita	0.021	423	C--	Z4 Hard Environment	0.571	108	A-
GDP per Square Kilometer	0.023	285	B--	Z4.1 Basic Elements	0.717	110	A-
Real Economic Growth Rate (5 Years)	0.489	84	A	Z4.2 Financial Market	0.456	110	A-
Employment Rate	0.841	413	C-	Z4.3 The Ability for Innovation	0.340	133	A--
Labor Productivity	0.026	415	C-	Z4.4 Market Scale	0.433	73	A
Number of International Patents	0.008	280	B--	Z5 Soft Environment	0.480	149	A--
Multinational Corporation Score	0.060	221	B	Z5.1 Market System	0.308	146	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.413	145	A--
Z1 Enterprise Quality	0.624	102	A-	Z5.3 Social Management	0.400	144	A--
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.500	110	A-
Z1.2 Corporate System	0.600	110	A-	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.667	106	A-	Z5.6 Paying Taxes	0.526	144	A--
Z1.4 Enterprise Operation	0.365	118	A-	Z6 Living Environment	0.662	145	A--
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.629	110	A-
Z1.6 Enterprise Performance	0.700	35	A+	Z6.2 Environmental Quality	0.587	134	A--
Z2 Industry Structure	0.390	126	A--	Z6.3 Shopping Environment	0.459	148	A--
Z2.1 Manufacturing Development	0.547	116	A-	Z6.4 Dining & Restaurant	0.711	121	A--
Z2.2 Service Industry Development	0.335	130	A--	Z6.5 Housing	0.324	146	A--
Z2.3 Financial Sector Development	0.273	82	A	Z6.6 Culture and Entertainment	0.440	73	A
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.934	10	A++
Z3 Human Resource	0.622	149	A--	Z7 Global Connectivity	0.370	120	A-
Z3.1 Health	0.460	148	A--	Z7.1 Location Convenience	0.140	140	A--
Z3.2 Literacy Quality	0.389	150	A--	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.659	15	A++	Z7.3 Water Transportation	0.275	64	A
				Z7.4 Air Transportation	0.116	73	A
				Z7.5 Information Connectivity	0.331	108	A-
				Z7.6 Residents Connectivity	0.004	148	A--
				Z7.7 Enterprises Connectivity	0.233	129	A--

CALGARY CITY COMPETITIVENESS

Table A2.41 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	96.64
Area (Sq Km)	726.50
GDP per Capita (\$)	44206
GDP Growth Rate (%)	3.32



Table A2.42 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.467	61	A	Z3.4 Status of Talent	0.436	60	A+
Nominal/Real Exchange Rate Ratio	0.043	315	C++	Z3.5 Education Development	0.471	68	A
GDP	0.073	56	A+	Z3.6 Cost of Labor Force	0.612	92	A-
GDP per Capita	0.704	50	A+	Z4 Hard Environment	0.646	83	A
GDP per Square Kilometer	0.091	166	B++	Z4.1 Basic Elements	0.718	108	A-
Real Economic Growth Rate (5 Years)	0.223	318	C++	Z4.2 Financial Market	0.529	75	A
Employment Rate	0.958	89	A	Z4.3 The Ability for Innovation	0.505	76	A
Labor Productivity	0.508	77	A	Z4.4 Market Scale	0.453	55	A+
Number of International Patents	0.264	72	A	Z5 Soft Environment	0.753	72	A
Multinational Corporation Score	0.124	122	A--	Z5.1 Market System	0.644	43	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.869	14	A++
Z1 Enterprise Quality	0.801	48	A+	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.850	23	A++	Z5.4 Public Service	0.669	40	A+
Z1.2 Corporate System	0.800	57	A+	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.800	79	A	Z5.6 Paying Taxes	0.865	12	A++
Z1.4 Enterprise Operation	0.489	94	A-	Z6 Living Environment	0.794	105	A-
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.419	146	A--
Z1.6 Enterprise Performance	0.767	23	A++	Z6.2 Environmental Quality	0.984	7	A++
Z2 Industry Structure	0.470	102	A-	Z6.3 Shopping Environment	0.725	89	A
Z2.1 Manufacturing Development	0.561	110	A-	Z6.4 Dining & Restaurant	0.780	94	A-
Z2.2 Service Industry Development	0.507	86	A	Z6.5 Housing	0.731	41	A+
Z2.3 Financial Sector Development	0.272	84	A	Z6.6 Culture and Entertainment	0.464	53	A+
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.793	82	A
Z3 Human Resource	0.742	77	A	Z7 Global Connectivity	0.436	99	A-
Z3.1 Health	0.945	40	A+	Z7.1 Location Convenience	0.112	146	A--
Z3.2 Literacy Quality	0.636	97	A-	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.452	67	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.124	68	A
				Z7.5 Information Connectivity	0.434	55	A+
				Z7.6 Residents Connectivity	0.584	6	A++
				Z7.7 Enterprises Connectivity	0.302	80	A

CAPE TOWN CITY COMPETITIVENESS

Table A2.43 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	308.31
Area (Sq Km)	2461.00
GDP per Capita (\$)	5894
GDP Growth Rate (%)	4.46



Table A2.44 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.216	280	B--	Z3.4 Status of Talent	0.442	56	A+
Nominal/Real Exchange Rate Ratio	0.199	145	A--	Z3.5 Education Development	0.373	127	A--
GDP	0.031	167	B++	Z3.6 Cost of Labor Force	0.924	4	A++
GDP per Capita	0.091	282	B--	Z4 Hard Environment	0.572	107	A-
GDP per Square Kilometer	0.011	346	C+	Z4.1 Basic Elements	0.809	64	A
Real Economic Growth Rate (5 Years)	0.262	246	B-	Z4.2 Financial Market	0.516	85	A
Employment Rate	0.729	462	D++	Z4.3 The Ability for Innovation	0.409	108	A-
Labor Productivity	0.098	264	B-	Z4.4 Market Scale	0.217	127	A--
Number of International Patents	0.032	197	B+	Z5 Soft Environment	0.631	111	A-
Multinational Corporation Score	0.182	80	A	Z5.1 Market System	0.455	130	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.787	64	A
Z1 Enterprise Quality	0.508	135	A--	Z5.3 Social Management	0.400	144	A--
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.565	74	A
Z1.2 Corporate System	0.400	141	A--	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.567	133	A--	Z5.6 Paying Taxes	0.766	93	A-
Z1.4 Enterprise Operation	0.292	138	A--	Z6 Living Environment	0.864	23	A++
Z1.5 Brand	0.200	135	A--	Z6.1 Natural Environment	0.854	30	A++
Z1.6 Enterprise Performance	0.633	48	A+	Z6.2 Environmental Quality	0.954	39	A+
Z2 Industry Structure	0.478	95	A-	Z6.3 Shopping Environment	0.773	63	A
Z2.1 Manufacturing Development	0.597	102	A-	Z6.4 Dining & Restaurant	0.724	118	A-
Z2.2 Service Industry Development	0.520	83	A	Z6.5 Housing	0.751	31	A+
Z2.3 Financial Sector Development	0.387	48	A+	Z6.6 Culture and Entertainment	0.393	112	A-
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.882	25	A++
Z3 Human Resource	0.719	95	A-	Z7 Global Connectivity	0.472	73	A
Z3.1 Health	0.685	138	A--	Z7.1 Location Convenience	0.504	101	A-
Z3.2 Literacy Quality	0.578	124	A--	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.439	80	A	Z7.3 Water Transportation	0.364	35	A+
				Z7.4 Air Transportation	0.059	103	A-
				Z7.5 Information Connectivity	0.343	103	A-
				Z7.6 Residents Connectivity	0.222	51	A+
				Z7.7 Enterprises Connectivity	0.261	105	A-

CHARLOTTE CITY COMPETITIVENESS

Table A2.45 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	61.61
Area (Sq Km)	393.90
GDP per Capita (\$)	47721
GDP Growth Rate (%)	3.90



Table A2.46 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.451	72	A	Z3.4 Status of Talent	0.413	79	A
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.456	81	A
GDP	0.050	92	A-	Z3.6 Cost of Labor Force	0.550	110	A-
GDP per Capita	0.761	30	A++	Z4 Hard Environment	0.768	22	A++
GDP per Square Kilometer	0.116	135	A--	Z4.1 Basic Elements	0.896	13	A++
Real Economic Growth Rate (5 Years)	0.243	279	B--	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.898	318	C++	Z4.3 The Ability for Innovation	0.537	61	A
Labor Productivity	0.592	42	A+	Z4.4 Market Scale	0.519	30	A++
Number of International Patents	0.194	89	A	Z5 Soft Environment	0.825	47	A+
Multinational Corporation Score	0.083	175	B++	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.880	25	A++	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.830	9	A++
Z1.2 Corporate System	0.950	8	A++	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.722	30	A++	Z6 Living Environment	0.827	66	A
Z1.5 Brand	1.000	1	A++	Z6.1 Natural Environment	0.747	71	A
Z1.6 Enterprise Performance	0.533	70	A	Z6.2 Environmental Quality	0.990	3	A++
Z2 Industry Structure	0.554	48	A+	Z6.3 Shopping Environment	0.666	124	A--
Z2.1 Manufacturing Development	0.666	72	A	Z6.4 Dining & Restaurant	0.874	42	A+
Z2.2 Service Industry Development	0.469	99	A-	Z6.5 Housing	0.755	28	A++
Z2.3 Financial Sector Development	0.425	41	A+	Z6.6 Culture and Entertainment	0.405	106	A-
Z2.4 High-Tech Industry Development	0.637	20	A++	Z6.7 Social Security	0.666	125	A--
Z3 Human Resource	0.742	77	A	Z7 Global Connectivity	0.495	60	A+
Z3.1 Health	0.897	95	A-	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.808	25	A++	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.426	90	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.291	22	A++
				Z7.5 Information Connectivity	0.374	89	A
				Z7.6 Residents Connectivity	0.095	87	A
				Z7.7 Enterprises Connectivity	0.408	38	A+

CHENGDU CITY COMPETITIVENESS

Table A2.47 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	416.63
Area (Sq Km)	2176.00
GDP per Capita (\$)	3502
GDP Growth Rate (%)	14.03

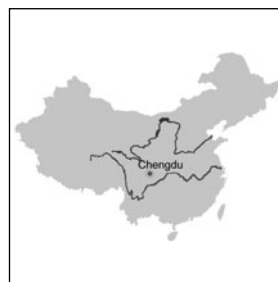


Table A2.48 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.255	234	B	Z3.4 Status of Talent	0.047	145	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.538	30	A++
GDP	0.031	163	B++	Z3.6 Cost of Labor Force	0.903	9	A++
GDP per Capita	0.053	355	C+	Z4 Hard Environment	0.534	129	A--
GDP per Square Kilometer	0.013	331	C+	Z4.1 Basic Elements	0.845	43	A+
Real Economic Growth Rate (5 Years)	0.589	47	A+	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.960	82	A	Z4.3 The Ability for Innovation	0.347	127	A--
Labor Productivity	0.042	363	C	Z4.4 Market Scale	0.203	134	A--
Number of International Patents	0.026	209	B+	Z5 Soft Environment	0.609	117	A-
Multinational Corporation Score	0.130	115	A-	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.492	136	A--	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.600	100	A-	Z5.4 Public Service	0.441	123	A--
Z1.2 Corporate System	0.650	97	A-	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.600	124	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.256	145	A--	Z6 Living Environment	0.835	54	A+
Z1.5 Brand	0.200	135	A--	Z6.1 Natural Environment	0.872	20	A++
Z1.6 Enterprise Performance	0.400	106	A-	Z6.2 Environmental Quality	0.640	126	A--
Z2 Industry Structure	0.383	128	A--	Z6.3 Shopping Environment	0.829	27	A++
Z2.1 Manufacturing Development	0.490	134	A--	Z6.4 Dining & Restaurant	0.821	77	A
Z2.2 Service Industry Development	0.350	127	A--	Z6.5 Housing	0.715	53	A+
Z2.3 Financial Sector Development	0.222	108	A-	Z6.6 Culture and Entertainment	0.440	73	A
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.834	56	A+
Z3 Human Resource	0.711	106	A-	Z7 Global Connectivity	0.292	144	A--
Z3.1 Health	0.905	87	A	Z7.1 Location Convenience	0.064	149	A--
Z3.2 Literacy Quality	0.557	132	A--	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.454	65	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.076	92	A-
				Z7.5 Information Connectivity	0.284	125	A--
				Z7.6 Residents Connectivity	0.011	141	A--
				Z7.7 Enterprises Connectivity	0.243	117	A-

CHICAGO CITY COMPETITIVENESS

Table A2.49 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	284.28
Area (Sq Km)	590.80
GDP per Capita (\$)	45 740
GDP Growth Rate (%)	1.16



Table A2.50 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.630	10	A++	Z3.4 Status of Talent	0.394	88	A
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.746	6	A++
GDP	0.222	11	A++	Z3.6 Cost of Labor Force	0.467	132	A--
GDP per Capita	0.729	41	A+	Z4 Hard Environment	0.862	5	A++
GDP per Square Kilometer	0.342	23	A++	Z4.1 Basic Elements	0.815	60	A+
Real Economic Growth Rate (5 Years)	0.149	437	C--	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.861	392	C-	Z4.3 The Ability for Innovation	0.841	7	A++
Labor Productivity	0.673	17	A++	Z4.4 Market Scale	0.619	15	A++
Number of International Patents	0.368	31	A+	Z5 Soft Environment	0.945	2	A++
Multinational Corporation Score	0.404	26	A++	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.871	29	A++	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	0.950	9	A++	Z5.4 Public Service	0.891	4	A++
Z1.2 Corporate System	0.950	8	A++	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	1.000	1	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.690	40	A+	Z6 Living Environment	0.773	122	A--
Z1.5 Brand	0.600	70	A	Z6.1 Natural Environment	0.597	122	A--
Z1.6 Enterprise Performance	0.600	55	A+	Z6.2 Environmental Quality	0.955	38	A+
Z2 Industry Structure	0.736	6	A++	Z6.3 Shopping Environment	0.774	54	A+
Z2.1 Manufacturing Development	0.825	10	A++	Z6.4 Dining & Restaurant	0.827	72	A
Z2.2 Service Industry Development	0.764	7	A++	Z6.5 Housing	0.659	99	A-
Z2.3 Financial Sector Development	0.714	7	A++	Z6.6 Culture and Entertainment	0.345	130	A--
Z2.4 High-Tech Industry Development	0.614	26	A++	Z6.7 Social Security	0.608	138	A--
Z3 Human Resource	0.763	57	A+	Z7 Global Connectivity	0.723	9	A++
Z3.1 Health	0.889	102	A-	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.711	61	A	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.446	74	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.776	2	A++
				Z7.5 Information Connectivity	0.647	9	A++
				Z7.6 Residents Connectivity	0.191	61	A
				Z7.7 Enterprises Connectivity	0.686	4	A++

CHONGQING CITY COMPETITIVENESS

Table A2.51 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	736.16
Area (Sq Km)	7152.00
GDP per Capita (\$)	2889
GDP Growth Rate (%)	12.60



Table A2.52 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.207	292	B--	Z3.4 Status of Talent	0.045	149	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.469	71	A
GDP	0.052	87	A	Z3.6 Cost of Labor Force	0.841	22	A++
GDP per Capita	0.043	373	C	Z4 Hard Environment	0.549	118	A-
GDP per Square Kilometer	0.007	409	C-	Z4.1 Basic Elements	0.850	38	A+
Real Economic Growth Rate (5 Years)	0.540	64	A	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.905	294	B--	Z4.3 The Ability for Innovation	0.342	131	A--
Labor Productivity	0.041	367	C	Z4.4 Market Scale	0.255	118	A-
Number of International Patents	0.014	243	B-	Z5 Soft Environment	0.572	131	A--
Multinational Corporation Score	0.050	253	B-	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.485	140	A--	Z5.3 Social Management	0.400	144	A--
Z1.1 Corporate Culture	0.550	110	A-	Z5.4 Public Service	0.440	124	A--
Z1.2 Corporate System	0.250	147	A--	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.533	143	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.297	136	A--	Z6 Living Environment	0.775	119	A-
Z1.5 Brand	0.200	135	A--	Z6.1 Natural Environment	0.835	39	A+
Z1.6 Enterprise Performance	0.833	13	A++	Z6.2 Environmental Quality	0.229	150	A--
Z2 Industry Structure	0.342	142	A--	Z6.3 Shopping Environment	0.742	77	A
Z2.1 Manufacturing Development	0.465	137	A--	Z6.4 Dining & Restaurant	0.944	10	A++
Z2.2 Service Industry Development	0.314	137	A--	Z6.5 Housing	0.661	98	A-
Z2.3 Financial Sector Development	0.187	125	A--	Z6.6 Culture and Entertainment	0.536	24	A++
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.832	61	A
Z3 Human Resource	0.661	138	A--	Z7 Global Connectivity	0.292	144	A--
Z3.1 Health	0.792	129	A--	Z7.1 Location Convenience	0.216	128	A--
Z3.2 Literacy Quality	0.556	133	A--	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.465	61	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.035	120	A-
				Z7.5 Information Connectivity	0.287	123	A--
				Z7.6 Residents Connectivity	0.007	145	A--
				Z7.7 Enterprises Connectivity	0.233	129	A--

CINCINNATI CITY COMPETITIVENESS

Table A2.53 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	33.13
Area (Sq Km)	200.40
GDP per Capita (\$)	40359
GDP Growth Rate (%)	1.71



Table A2.54 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.407	97	A-	Z3.4 Status of Talent	0.385	94	A-
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.475	60	A+
GDP	0.023	216	B	Z3.6 Cost of Labor Force	0.628	80	A
GDP per Capita	0.643	89	A	Z4 Hard Environment	0.756	27	A++
GDP per Square Kilometer	0.104	147	A--	Z4.1 Basic Elements	0.873	25	A++
Real Economic Growth Rate (5 Years)	0.168	407	C-	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.868	382	C	Z4.3 The Ability for Innovation	0.587	46	A+
Labor Productivity	0.626	33	A+	Z4.4 Market Scale	0.451	56	A+
Number of International Patents	0.424	21	A++	Z5 Soft Environment	0.831	46	A+
Multinational Corporation Score	0.041	287	B--	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.848	34	A+	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.864	7	A++
Z1.2 Corporate System	0.950	8	A++	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.967	12	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.709	34	A+	Z6 Living Environment	0.799	98	A-
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.689	89	A
Z1.6 Enterprise Performance	0.433	103	A-	Z6.2 Environmental Quality	0.939	58	A+
Z2 Industry Structure	0.520	72	A	Z6.3 Shopping Environment	0.687	118	A-
Z2.1 Manufacturing Development	0.741	38	A+	Z6.4 Dining & Restaurant	0.807	83	A
Z2.2 Service Industry Development	0.446	103	A-	Z6.5 Housing	0.731	41	A+
Z2.3 Financial Sector Development	0.350	54	A+	Z6.6 Culture and Entertainment	0.417	93	A-
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.659	128	A--
Z3 Human Resource	0.718	96	A-	Z7 Global Connectivity	0.411	107	A-
Z3.1 Health	0.885	108	A-	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.725	55	A+	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.340	144	A--	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.216	40	A+
				Z7.5 Information Connectivity	0.285	124	A--
				Z7.6 Residents Connectivity	0.047	116	A-
				Z7.7 Enterprises Connectivity	0.268	102	A-

CLEVELAND CITY COMPETITIVENESS

Table A2.55 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	45.06
Area (Sq Km)	204.60
GDP per Capita (\$)	41 894
GDP Growth Rate (%)	1.41



Table A2.56 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.450	73	A	Z3.4 Status of Talent	0.426	69	A
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.384	118	A-
GDP	0.032	161	B++	Z3.6 Cost of Labor Force	0.627	82	A
GDP per Capita	0.667	76	A	Z4 Hard Environment	0.748	34	A+
GDP per Square Kilometer	0.143	107	A-	Z4.1 Basic Elements	0.874	23	A++
Real Economic Growth Rate (5 Years)	0.157	417	C-	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.778	448	C--	Z4.3 The Ability for Innovation	0.594	41	A+
Labor Productivity	0.742	7	A++	Z4.4 Market Scale	0.415	79	A
Number of International Patents	0.332	44	A+	Z5 Soft Environment	0.816	51	A+
Multinational Corporation Score	0.116	129	A--	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.794	53	A+	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.780	22	A++
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.563	76	A	Z6 Living Environment	0.817	77	A
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.585	127	A--
Z1.6 Enterprise Performance	0.467	94	A-	Z6.2 Environmental Quality	0.949	48	A+
Z2 Industry Structure	0.511	76	A	Z6.3 Shopping Environment	0.666	124	A--
Z2.1 Manufacturing Development	0.651	81	A	Z6.4 Dining & Restaurant	0.958	7	A++
Z2.2 Service Industry Development	0.530	77	A	Z6.5 Housing	0.634	112	A-
Z2.3 Financial Sector Development	0.318	64	A	Z6.6 Culture and Entertainment	0.571	17	A++
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.677	119	A-
Z3 Human Resource	0.677	130	A--	Z7 Global Connectivity	0.468	77	A
Z3.1 Health	0.885	108	A-	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.596	116	A-	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.326	148	A--	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.289	23	A++
				Z7.5 Information Connectivity	0.345	102	A-
				Z7.6 Residents Connectivity	0.048	115	A-
				Z7.7 Enterprises Connectivity	0.343	52	A+

COLUMBUS CITY COMPETITIVENESS

Table A2.57 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	72.97
Area (Sq Km)	483.80
GDP per Capita (\$)	43511
GDP Growth Rate (%)	1.56



Table A2.58 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.407	95	A-	Z3.4 Status of Talent	0.428	65	A
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.479	51	A+
GDP	0.054	81	A	Z3.6 Cost of Labor Force	0.648	75	A
GDP per Capita	0.693	60	A+	Z4 Hard Environment	0.747	35	A+
GDP per Square Kilometer	0.102	151	B++	Z4.1 Basic Elements	0.879	17	A++
Real Economic Growth Rate (5 Years)	0.162	411	C-	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.903	298	B--	Z4.3 The Ability for Innovation	0.543	59	A+
Labor Productivity	0.567	55	A+	Z4.4 Market Scale	0.461	51	
Number of International Patents	0.201	88	A	Z5 Soft Environment	0.798	57	A+
Multinational Corporation Score	0.101	152	B++	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.796	51	A+	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.780	22	A++
Z1.2 Corporate System	0.800	57	A+	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.776	18	A++	Z6 Living Environment	0.775	119	A-
Z1.5 Brand	0.600	70	A	Z6.1 Natural Environment	0.634	108	A-
Z1.6 Enterprise Performance	0.567	62	A	Z6.2 Environmental Quality	0.937	59	A+
Z2 Industry Structure	0.531	61	A	Z6.3 Shopping Environment	0.687	118	A-
Z2.1 Manufacturing Development	0.686	60	A+	Z6.4 Dining & Restaurant	0.812	81	A
Z2.2 Service Industry Development	0.527	81	A	Z6.5 Housing	0.730	43	A+
Z2.3 Financial Sector Development	0.369	51	A+	Z6.6 Culture and Entertainment	0.321	139	A--
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.661	127	A--
Z3 Human Resource	0.750	67	A	Z7 Global Connectivity	0.454	85	A
Z3.1 Health	0.885	108	A-	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.744	48	A+	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.408	107	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.122	70	A
				Z7.5 Information Connectivity	0.328	109	A-
				Z7.6 Residents Connectivity	0.056	110	A-
				Z7.7 Enterprises Connectivity	0.342	56	A+

COPENHAGEN CITY COMPETITIVENESS

Table A2.59 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	50.24
Area (Sq Km)	88.00
GDP per Capita (\$)	51 001
GDP Growth Rate (%)	1.73



Table A2.60 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.412	92	A-	Z3.4 Status of Talent	0.569	23	A++
Nominal/Real Exchange Rate Ratio	0.014	488	D+	Z3.5 Education Development	0.459	77	A
GDP	0.004	385	C	Z3.6 Cost of Labor Force	0.459	135	A--
GDP per Capita	0.813	20	A++	Z4 Hard Environment	0.652	78	A
GDP per Square Kilometer	0.045	231	B	Z4.1 Basic Elements	0.707	113	A-
Real Economic Growth Rate (5 Years)	0.168	403	C-	Z4.2 Financial Market	0.526	81	A
Employment Rate	0.913	269	B-	Z4.3 The Ability for Innovation	0.593	43	A+
Labor Productivity	0.638	26	A++	Z4.4 Market Scale	0.399	84	A
Number of International Patents	0.206	87	A	Z5 Soft Environment	0.906	11	A++
Multinational Corporation Score	0.238	61	A	Z5.1 Market System	0.618	54	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.929	3	A++
Z1 Enterprise Quality	0.893	19	A++	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.850	23	A++	Z5.4 Public Service	0.663	41	A+
Z1.2 Corporate System	0.750	70	A	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.967	12	A++	Z5.6 Paying Taxes	0.883	5	A++
Z1.4 Enterprise Operation	0.741	27	A++	Z6 Living Environment	0.795	104	A-
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.663	98	A-
Z1.6 Enterprise Performance	0.700	35	A+	Z6.2 Environmental Quality	0.931	72	A
Z2 Industry Structure	0.611	28	A++	Z6.3 Shopping Environment	0.989	2	A++
Z2.1 Manufacturing Development	0.703	48	A+	Z6.4 Dining & Restaurant	0.662	137	A--
Z2.2 Service Industry Development	0.575	55	A+	Z6.5 Housing	0.620	122	A--
Z2.3 Financial Sector Development	0.477	31	A+	Z6.6 Culture and Entertainment	0.429	82	A
Z2.4 High-Tech Industry Development	0.668	10	A++	Z6.7 Social Security	0.606	139	A--
Z3 Human Resource	0.758	62	A	Z7 Global Connectivity	0.480	70	A
Z3.1 Health	0.911	83	A	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.817	23	A++	Z7.2 Land Transportation	0.500	142	A--
Z3.3 Status of the Labor Market	0.414	101	A-	Z7.3 Water Transportation	0.274	65	A
				Z7.4 Air Transportation	0.179	55	A+
				Z7.5 Information Connectivity	0.385	78	A
				Z7.6 Residents Connectivity	0.371	22	A++
				Z7.7 Enterprises Connectivity	0.375	43	A+

DALIAN CITY COMPETITIVENESS

Table A2.61 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	281.11
Area (Sq Km)	2415.00
GDP per Capita (\$)	6109
GDP Growth Rate (%)	15.29

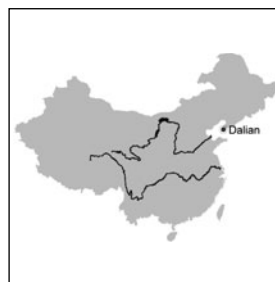


Table A2.62 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.260	231	B	Z3.4 Status of Talent	0.070	141	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.436	91	A-
GDP	0.033	158	B++	Z3.6 Cost of Labor Force	0.861	17	A++
GDP per Capita	0.094	280	B--	Z4 Hard Environment	0.525	135	A--
GDP per Square Kilometer	0.013	336	C+	Z4.1 Basic Elements	0.801	71	A
Real Economic Growth Rate (5 Years)	0.632	25	A++	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.913	267	B-	Z4.3 The Ability for Innovation	0.336	135	A--
Labor Productivity	0.077	279	B--	Z4.4 Market Scale	0.227	124	A--
Number of International Patents	0.017	231	B	Z5 Soft Environment	0.626	114	A-
Multinational Corporation Score	0.058	227	B	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.475	142	A--	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.550	110	A-	Z5.4 Public Service	0.437	130	A--
Z1.2 Corporate System	0.650	97	A-	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.567	133	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.275	141	A--	Z6 Living Environment	0.812	84	A
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.689	89	A
Z1.6 Enterprise Performance	0.167	139	A--	Z6.2 Environmental Quality	0.726	115	A-
Z2 Industry Structure	0.361	135	A--	Z6.3 Shopping Environment	0.774	54	A+
Z2.1 Manufacturing Development	0.464	139	A--	Z6.4 Dining & Restaurant	0.899	28	A++
Z2.2 Service Industry Development	0.321	132	A--	Z6.5 Housing	0.665	92	A-
Z2.3 Financial Sector Development	0.190	122	A--	Z6.6 Culture and Entertainment	0.417	93	A-
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.839	47	A+
Z3 Human Resource	0.701	117	A-	Z7 Global Connectivity	0.345	128	A--
Z3.1 Health	0.907	85	A	Z7.1 Location Convenience	0.288	123	A--
Z3.2 Literacy Quality	0.624	101	A-	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.459	64	A	Z7.3 Water Transportation	0.326	47	A+
				Z7.4 Air Transportation	0.030	123	A--
				Z7.5 Information Connectivity	0.269	128	A--
				Z7.6 Residents Connectivity	0.018	132	A--
				Z7.7 Enterprises Connectivity	0.236	123	A--

DALLAS CITY COMPETITIVENESS

Table A2.63 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	121.63
Area (Sq Km)	858.30
GDP per Capita (\$)	50440
GDP Growth Rate (%)	2.31



Table A2.64 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.532	25	A++	Z3.4 Status of Talent	0.455	44	A+
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.501	43	A+
GDP	0.105	35	A+	Z3.6 Cost of Labor Force	0.749	44	A+
GDP per Capita	0.804	21	A++	Z4 Hard Environment	0.787	17	A++
GDP per Square Kilometer	0.111	141	A--	Z4.1 Basic Elements	0.854	34	A+
Real Economic Growth Rate (5 Years)	0.188	376	C	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.894	326	C++	Z4.3 The Ability for Innovation	0.586	47	A+
Labor Productivity	0.634	27	A++	Z4.4 Market Scale	0.577	20	A++
Number of International Patents	0.320	54	A+	Z5 Soft Environment	0.854	31	A+
Multinational Corporation Score	0.263	53	A+	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.927	7	A++	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.950	9	A++	Z5.4 Public Service	0.788	17	A++
Z1.2 Corporate System	1.000	1	A++	Z5.5 Strategy and Experience	0.800	39	A+
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.845	10	A++	Z6 Living Environment	0.822	72	A
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.825	47	A+
Z1.6 Enterprise Performance	0.667	43	A+	Z6.2 Environmental Quality	0.954	39	A+
Z2 Industry Structure	0.595	37	A+	Z6.3 Shopping Environment	0.666	124	A--
Z2.1 Manufacturing Development	0.782	16	A++	Z6.4 Dining & Restaurant	0.778	96	A-
Z2.2 Service Industry Development	0.531	75	A	Z6.5 Housing	0.753	29	A++
Z2.3 Financial Sector Development	0.409	45	A+	Z6.6 Culture and Entertainment	0.440	73	A
Z2.4 High-Tech Industry Development	0.637	20	A++	Z6.7 Social Security	0.655	129	A--
Z3 Human Resource	0.790	32	A+	Z7 Global Connectivity	0.448	92	A-
Z3.1 Health	0.904	89	A	Z7.1 Location Convenience	0.288	123	A--
Z3.2 Literacy Quality	0.727	53	A+	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.445	76	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.070	97	A-
				Z7.5 Information Connectivity	0.454	49	A+
				Z7.6 Residents Connectivity	0.206	58	A+
				Z7.7 Enterprises Connectivity	0.504	15	A++

DELHI CITY COMPETITIVENESS

Table A2.65 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	1290.00
Area (Sq Km)	1483.00
GDP per Capita (\$)	1557
GDP Growth Rate (%)	8.24



Table A2.66 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.275	213	B	Z3.4 Status of Talent	0.086	130	A--
Nominal/Real Exchange Rate Ratio	0.374	12	A++	Z3.5 Education Development	0.432	93	A-
GDP	0.034	149	A--	Z3.6 Cost of Labor Force	0.839	24	A++
GDP per Capita	0.022	422	C--	Z4 Hard Environment	0.564	109	A-
GDP per Square Kilometer	0.021	291	B--	Z4.1 Basic Elements	0.583	145	A--
Real Economic Growth Rate (5 Years)	0.391	136	A--	Z4.2 Financial Market	0.456	110	A-
Employment Rate	0.934	190	B+	Z4.3 The Ability for Innovation	0.487	84	A
Labor Productivity	0.022	427	C--	Z4.4 Market Scale	0.396	85	A
Number of International Patents	0.181	94	A-	Z5 Soft Environment	0.540	143	A--
Multinational Corporation Score	0.261	54	A+	Z5.1 Market System	0.308	146	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.413	145	A--
Z1 Enterprise Quality	0.663	94	A-	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.529	96	A-
Z1.2 Corporate System	0.650	97	A-	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.600	124	A--	Z5.6 Paying Taxes	0.526	144	A--
Z1.4 Enterprise Operation	0.397	112	A-	Z6 Living Environment	0.586	149	A--
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.610	120	A-
Z1.6 Enterprise Performance	0.700	35	A+	Z6.2 Environmental Quality	0.554	138	A--
Z2 Industry Structure	0.505	78	A	Z6.3 Shopping Environment	0.469	147	A--
Z2.1 Manufacturing Development	0.637	91	A-	Z6.4 Dining & Restaurant	0.435	150	A--
Z2.2 Service Industry Development	0.536	70	A	Z6.5 Housing	0.275	148	A--
Z2.3 Financial Sector Development	0.369	51	A+	Z6.6 Culture and Entertainment	0.417	93	A-
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.852	39	A+
Z3 Human Resource	0.693	121	A--	Z7 Global Connectivity	0.321	138	A--
Z3.1 Health	0.536	146	A--	Z7.1 Location Convenience	0.036	150	A--
Z3.2 Literacy Quality	0.739	49	A+	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.687	13	A++	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.014	135	A--
				Z7.5 Information Connectivity	0.453	50	A+
				Z7.6 Residents Connectivity	0.007	145	A--
				Z7.7 Enterprises Connectivity	0.324	68	A

DENVER CITY COMPETITIVENESS

Table A2.67 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	55.87
Area (Sq Km)	276.60
GDP per Capita (\$)	50343
GDP Growth Rate (%)	1.70



Table A2.68 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.469	59	A+	Z3.4 Status of Talent	0.410	82	A
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.525	32	A+
GDP	0.048	100	A-	Z3.6 Cost of Labor Force	0.587	99	A-
GDP per Capita	0.803	22	A++	Z4 Hard Environment	0.755	28	A++
GDP per Square Kilometer	0.158	94	A-	Z4.1 Basic Elements	0.799	72	A
Real Economic Growth Rate (5 Years)	0.167	409	C-	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.921	238	B	Z4.3 The Ability for Innovation	0.567	51	A+
Labor Productivity	0.628	31	A+	Z4.4 Market Scale	0.543	27	A++
Number of International Patents	0.161	99	A-	Z5 Soft Environment	0.855	30	A++
Multinational Corporation Score	0.211	72	A	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.733	71	A	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.850	23	A++	Z5.4 Public Service	0.793	14	A++
Z1.2 Corporate System	0.800	57	A+	Z5.5 Strategy and Experience	0.900	26	A++
Z1.3 Enterprise Management	0.900	48	A+	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.511	85	A	Z6 Living Environment	0.847	41	A+
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.597	122	A--
Z1.6 Enterprise Performance	0.167	139	A--	Z6.2 Environmental Quality	0.974	20	A++
Z2 Industry Structure	0.586	42	A+	Z6.3 Shopping Environment	0.698	109	A-
Z2.1 Manufacturing Development	0.750	30	A++	Z6.4 Dining & Restaurant	0.997	2	A++
Z2.2 Service Industry Development	0.609	41	A+	Z6.5 Housing	0.736	36	A+
Z2.3 Financial Sector Development	0.299	70	A	Z6.6 Culture and Entertainment	0.524	29	A++
Z2.4 High-Tech Industry Development	0.663	11	A++	Z6.7 Social Security	0.698	105	A-
Z3 Human Resource	0.761	60	A+	Z7 Global Connectivity	0.438	96	A-
Z3.1 Health	0.918	74	A	Z7.1 Location Convenience	0.216	128	A--
Z3.2 Literacy Quality	0.791	37	A+	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.414	101	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.338	15	A++
				Z7.5 Information Connectivity	0.435	54	A+
				Z7.6 Residents Connectivity	0.161	71	A
				Z7.7 Enterprises Connectivity	0.421	32	A+

DETROIT CITY COMPETITIVENESS

Table A2.69 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	88.35
Area (Sq Km)	351.20
GDP per Capita (\$)	44416
GDP Growth Rate (%)	0.70



Table A2.70 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.434	79	A	Z3.4 Status of Talent	0.444	51	A+
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.444	86	A
GDP	0.067	62	A	Z3.6 Cost of Labor Force	0.579	102	A-
GDP per Capita	0.708	48	A+	Z4 Hard Environment	0.724	44	A+
GDP per Square Kilometer	0.174	81	A	Z4.1 Basic Elements	0.821	54	A+
Real Economic Growth Rate (5 Years)	0.133	472	D++	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.732	460	D++	Z4.3 The Ability for Innovation	0.515	71	A
Labor Productivity	0.876	3	A++	Z4.4 Market Scale	0.468	49	A+
Number of International Patents	0.147	109	A-	Z5 Soft Environment	0.832	44	A+
Multinational Corporation Score	0.151	98	A-	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.885	23	A++	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	1.000	1	A++	Z5.4 Public Service	0.765	31	A+
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	1.000	1	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.730	28	A++	Z6 Living Environment	0.710	140	A--
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.528	137	A--
Z1.6 Enterprise Performance	0.533	70	A	Z6.2 Environmental Quality	0.952	42	A+
Z2 Industry Structure	0.517	74	A	Z6.3 Shopping Environment	0.720	95	A-
Z2.1 Manufacturing Development	0.776	18	A++	Z6.4 Dining & Restaurant	0.752	106	A-
Z2.2 Service Industry Development	0.557	63	A	Z6.5 Housing	0.598	130	A--
Z2.3 Financial Sector Development	0.193	120	A-	Z6.6 Culture and Entertainment	0.381	120	A-
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.447	147	A--
Z3 Human Resource	0.680	127	A--	Z7 Global Connectivity	0.543	46	A+
Z3.1 Health	0.879	116	A-	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.592	117	A-	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.317	149	A--	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.595	4	A++
				Z7.5 Information Connectivity	0.432	56	A+
				Z7.6 Residents Connectivity	0.056	110	A-
				Z7.7 Enterprises Connectivity	0.343	52	A+

DONGGUAN CITY COMPETITIVENESS

Table A2.71 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	164.23
Area (Sq Km)	2465.00
GDP per Capita (\$)	4840
GDP Growth Rate (%)	19.25



Table A2.72 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.240	253	B-	Z3.4 Status of Talent	0.086	130	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.324	150	A--
GDP	0.045	111	A-	Z3.6 Cost of Labor Force	0.838	25	A++
GDP per Capita	0.074	303	C++	Z4 Hard Environment	0.543	123	A--
GDP per Square Kilometer	0.017	308	C++	Z4.1 Basic Elements	0.926	7	A++
Real Economic Growth Rate (5 Years)	0.767	4	A++	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.980	17	A++	Z4.3 The Ability for Innovation	0.324	142	A--
Labor Productivity	0.050	343	C+	Z4.4 Market Scale	0.176	139	A--
Number of International Patents	0.015	239	B	Z5 Soft Environment	0.623	116	A-
Multinational Corporation Score	0.012	382	C	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.532	130	A--	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.650	85	A	Z5.4 Public Service	0.420	140	A--
Z1.2 Corporate System	0.500	127	A--	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.567	133	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.311	130	A--	Z6 Living Environment	0.713	139	A--
Z1.5 Brand	0.300	123	A--	Z6.1 Natural Environment	0.744	74	A
Z1.6 Enterprise Performance	0.600	55	A+	Z6.2 Environmental Quality	0.369	148	A--
Z2 Industry Structure	0.357	138	A--	Z6.3 Shopping Environment	0.774	54	A+
Z2.1 Manufacturing Development	0.538	117	A-	Z6.4 Dining & Restaurant	0.749	107	A-
Z2.2 Service Industry Development	0.253	148	A--	Z6.5 Housing	0.623	120	A-
Z2.3 Financial Sector Development	0.234	99	A-	Z6.6 Culture and Entertainment	0.298	145	A--
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.837	49	A+
Z3 Human Resource	0.649	143	A--	Z7 Global Connectivity	0.437	98	A-
Z3.1 Health	0.858	121	A--	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.549	136	A--	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.452	67	A	Z7.3 Water Transportation	0.292	60	A+
				Z7.4 Air Transportation	0.000	141	A--
				Z7.5 Information Connectivity	0.248	137	A--
				Z7.6 Residents Connectivity	0.087	90	A
				Z7.7 Enterprises Connectivity	0.228	141	A--

DUBAI CITY COMPETITIVENESS

Table A2.73 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	129.91
Area (Sq Km)	4114.00
GDP per Capita (\$)	40929
GDP Growth Rate (%)	14.49



Table A2.74 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.493	39	A+	Z3.4 Status of Talent	0.300	110	A-
Nominal/Real Exchange Rate Ratio	0.030	413	C-	Z3.5 Education Development	0.367	132	A--
GDP	0.091	45	A+	Z3.6 Cost of Labor Force	0.617	88	A
GDP per Capita	0.652	80	A	Z4 Hard Environment	0.576	105	A-
GDP per Square Kilometer	0.064	201	B+	Z4.1 Basic Elements	0.790	76	A
Real Economic Growth Rate (5 Years)	0.605	38	A+	Z4.2 Financial Market	0.364	143	A--
Employment Rate	0.978	23	A++	Z4.3 The Ability for Innovation	0.381	117	A-
Labor Productivity	0.369	158	B++	Z4.4 Market Scale	0.429	74	A
Number of International Patents	0.008	280	B--	Z5 Soft Environment	0.681	96	A-
Multinational Corporation Score	0.368	31	A+	Z5.1 Market System	0.481	117	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.345	150	A--
Z1 Enterprise Quality	0.593	113	A-	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.500	126	A--	Z5.4 Public Service	0.483	114	A-
Z1.2 Corporate System	0.400	141	A--	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.767	87	A	Z5.6 Paying Taxes	0.842	26	A++
Z1.4 Enterprise Operation	0.359	122	A--	Z6 Living Environment	0.851	37	A+
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.793	55	A+
Z1.6 Enterprise Performance	0.733	29	A++	Z6.2 Environmental Quality	0.632	127	A--
Z2 Industry Structure	0.528	65	A	Z6.3 Shopping Environment	0.905	15	A++
Z2.1 Manufacturing Development	0.486	135	A--	Z6.4 Dining & Restaurant	0.790	91	A-
Z2.2 Service Industry Development	0.581	53	A+	Z6.5 Housing	0.690	75	A
Z2.3 Financial Sector Development	0.570	16	A++	Z6.6 Culture and Entertainment	0.476	46	A+
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.960	4	A++
Z3 Human Resource	0.703	113	A-	Z7 Global Connectivity	0.690	13	A++
Z3.1 Health	0.896	96	A-	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.602	112	A-	Z7.2 Land Transportation	0.500	142	A--
Z3.3 Status of the Labor Market	0.584	24	A++	Z7.3 Water Transportation	0.542	12	A++
				Z7.4 Air Transportation	0.181	53	A+
				Z7.5 Information Connectivity	0.587	18	A++
				Z7.6 Residents Connectivity	1.000	1	A++
				Z7.7 Enterprises Connectivity	0.311	77	A

DUBLIN CITY COMPETITIVENESS

Table A2.75 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	116.96
Area (Sq Km)	922.00
GDP per Capita (\$)	47801
GDP Growth Rate (%)	2.06



Table A2.76 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.529	27	A++	Z3.4 Status of Talent	0.621	15	A++
Nominal/Real Exchange Rate Ratio	0.025	432	C--	Z3.5 Education Development	0.474	61	A
GDP	0.095	42	A+	Z3.6 Cost of Labor Force	0.554	109	A-
GDP per Capita	0.762	28	A++	Z4 Hard Environment	0.629	89	A
GDP per Square Kilometer	0.094	163	B++	Z4.1 Basic Elements	0.632	132	A--
Real Economic Growth Rate (5 Years)	0.179	390	C	Z4.2 Financial Market	0.546	69	A
Employment Rate	0.954	104	A-	Z4.3 The Ability for Innovation	0.531	64	A
Labor Productivity	0.510	75	A	Z4.4 Market Scale	0.437	69	A
Number of International Patents	0.311	61	A	Z5 Soft Environment	0.879	19	A++
Multinational Corporation Score	0.427	23	A++	Z5.1 Market System	0.600	61	A
Subentry Competitiveness				Z5.2 Market Regulation	0.789	63	A
Z1 Enterprise Quality	0.731	72	A	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	0.650	85	A	Z5.4 Public Service	0.577	67	A
Z1.2 Corporate System	0.750	70	A	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.800	79	A	Z5.6 Paying Taxes	0.873	9	A++
Z1.4 Enterprise Operation	0.549	79	A	Z6 Living Environment	0.851	37	A+
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.710	82	A
Z1.6 Enterprise Performance	0.467	94	A-	Z6.2 Environmental Quality	0.950	45	A+
Z2 Industry Structure	0.650	19	A++	Z6.3 Shopping Environment	0.814	34	A+
Z2.1 Manufacturing Development	0.720	43	A+	Z6.4 Dining & Restaurant	0.644	140	A--
Z2.2 Service Industry Development	0.636	35	A+	Z6.5 Housing	0.946	3	A++
Z2.3 Financial Sector Development	0.634	12	A++	Z6.6 Culture and Entertainment	0.381	120	A-
Z2.4 High-Tech Industry Development	0.586	40	A+	Z6.7 Social Security	0.805	76	A
Z3 Human Resource	0.797	24	A++	Z7 Global Connectivity	0.697	11	A++
Z3.1 Health	0.915	77	A	Z7.1 Location Convenience	1.000	1	A++
Z3.2 Literacy Quality	0.752	46	A+	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.498	47	A+	Z7.3 Water Transportation	0.310	53	A+
				Z7.4 Air Transportation	0.166	56	A+
				Z7.5 Information Connectivity	0.508	31	A+
				Z7.6 Residents Connectivity	0.487	14	A++
				Z7.7 Enterprises Connectivity	0.397	39	A+

EDMONTON CITY COMPETITIVENESS

Table A2.77 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	71.75
Area (Sq Km)	684.37
GDP per Capita (\$)	43938
GDP Growth Rate (%)	2.96



Table A2.78 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.370	124	A--	Z3.4 Status of Talent	0.436	60	A+
Nominal/Real Exchange Rate Ratio	0.043	315	C++	Z3.5 Education Development	0.373	127	A--
GDP	0.054	83	A	Z3.6 Cost of Labor Force	0.654	71	A
GDP per Capita	0.700	53	A+	Z4 Hard Environment	0.651	79	A
GDP per Square Kilometer	0.072	187	B+	Z4.1 Basic Elements	0.811	62	A
Real Economic Growth Rate (5 Years)	0.210	338	C+	Z4.2 Financial Market	0.529	75	A
Employment Rate	0.950	132	A--	Z4.3 The Ability for Innovation	0.476	91	A-
Labor Productivity	0.505	81	A	Z4.4 Market Scale	0.404	83	A
Number of International Patents	0.094	138	A--	Z5 Soft Environment	0.769	68	A
Multinational Corporation Score	0.066	205	B+	Z5.1 Market System	0.644	43	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.869	14	A++
Z1 Enterprise Quality	0.735	70	A	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.650	85	A	Z5.4 Public Service	0.659	42	A+
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.833	75	A	Z5.6 Paying Taxes	0.865	12	A++
Z1.4 Enterprise Operation	0.525	80	A	Z6 Living Environment	0.772	124	A--
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.398	148	A--
Z1.6 Enterprise Performance	0.633	48	A+	Z6.2 Environmental Quality	0.971	26	A++
Z2 Industry Structure	0.434	116	A-	Z6.3 Shopping Environment	0.769	64	A
Z2.1 Manufacturing Development	0.641	90	A	Z6.4 Dining & Restaurant	0.805	84	A
Z2.2 Service Industry Development	0.396	119	A-	Z6.5 Housing	0.613	124	A--
Z2.3 Financial Sector Development	0.158	142	A--	Z6.6 Culture and Entertainment	0.500	37	A+
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.705	102	A-
Z3 Human Resource	0.724	93	A-	Z7 Global Connectivity	0.335	133	A--
Z3.1 Health	0.913	81	A	Z7.1 Location Convenience	0.112	146	A--
Z3.2 Literacy Quality	0.645	94	A-	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.446	74	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.060	102	A-
				Z7.5 Information Connectivity	0.403	70	A
				Z7.6 Residents Connectivity	0.162	70	A
				Z7.7 Enterprises Connectivity	0.271	101	A-

FRANKFURT CITY COMPETITIVENESS

Table A2.79 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	65.16
Area (Sq Km)	248.31
GDP per Capita (\$)	40418
GDP Growth Rate (%)	1.16



Table A2.80 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.527	28	A++	Z3.4 Status of Talent	0.648	13	A++
Nominal/Real Exchange Rate Ratio	0.026	415	C-	Z3.5 Education Development	0.428	94	A-
GDP	0.045	113	A-	Z3.6 Cost of Labor Force	0.570	104	A-
GDP per Capita	0.644	87	A	Z4 Hard Environment	0.664	70	A
GDP per Square Kilometer	0.165	90	A	Z4.1 Basic Elements	0.563	146	A--
Real Economic Growth Rate (5 Years)	0.149	438	C--	Z4.2 Financial Market	0.606	56	A+
Employment Rate	0.850	406	C-	Z4.3 The Ability for Innovation	0.636	28	A++
Labor Productivity	0.506	80	A	Z4.4 Market Scale	0.459	52	A+
Number of International Patents	0.387	25	A++	Z5 Soft Environment	0.851	33	A+
Multinational Corporation Score	0.509	13	A++	Z5.1 Market System	0.607	56	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.876	9	A++
Z1 Enterprise Quality	0.794	53	A+	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.750	52	A+	Z5.4 Public Service	0.579	63	A
Z1.2 Corporate System	0.850	41	A+	Z5.5 Strategy and Experience	0.900	26	A++
Z1.3 Enterprise Management	0.900	48	A+	Z5.6 Paying Taxes	0.825	28	A++
Z1.4 Enterprise Operation	0.631	62	A	Z6 Living Environment	0.883	19	A++
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.625	113	A-
Z1.6 Enterprise Performance	0.533	70	A	Z6.2 Environmental Quality	0.970	27	A++
Z2 Industry Structure	0.601	34	A+	Z6.3 Shopping Environment	0.957	7	A++
Z2.1 Manufacturing Development	0.582	109	A-	Z6.4 Dining & Restaurant	0.839	61	A
Z2.2 Service Industry Development	0.564	62	A	Z6.5 Housing	0.888	8	A++
Z2.3 Financial Sector Development	0.713	8	A++	Z6.6 Culture and Entertainment	0.583	16	A++
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.584	140	A--
Z3 Human Resource	0.800	23	A++	Z7 Global Connectivity	0.640	24	A++
Z3.1 Health	0.940	46	A+	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.657	83	A	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.587	23	A++	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.393	10	A++
				Z7.5 Information Connectivity	0.523	25	A++
				Z7.6 Residents Connectivity	0.546	10	A++
				Z7.7 Enterprises Connectivity	0.491	17	A++

FUZHOU CITY COMPETITIVENESS

Table A2.81 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	145.76
Area (Sq Km)	1043.00
GDP per Capita (\$)	4467
GDP Growth Rate (%)	10.88



Table A2.82 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.208	291	B--	Z3.4 Status of Talent	0.073	139	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.458	78	A
GDP	0.015	274	B--	Z3.6 Cost of Labor Force	0.832	28	A++
GDP per Capita	0.068	312	C++	Z4 Hard Environment	0.538	125	A--
GDP per Square Kilometer	0.013	332	C+	Z4.1 Basic Elements	0.930	5	A++
Real Economic Growth Rate (5 Years)	0.481	88	A	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.937	174	B++	Z4.3 The Ability for Innovation	0.325	141	A--
Labor Productivity	0.058	324	C++	Z4.4 Market Scale	0.154	145	A--
Number of International Patents	0.012	256	B-	Z5 Soft Environment	0.572	131	A--
Multinational Corporation Score	0.046	262	B-	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.615	106	A-	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.600	100	A-	Z5.4 Public Service	0.440	124	A--
Z1.2 Corporate System	0.350	144	A--	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.600	124	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.363	121	A--	Z6 Living Environment	0.834	55	A+
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.928	5	A++
Z1.6 Enterprise Performance	0.967	2	A++	Z6.2 Environmental Quality	0.539	139	A--
Z2 Industry Structure	0.345	140	A--	Z6.3 Shopping Environment	0.807	37	A+
Z2.1 Manufacturing Development	0.465	137	A--	Z6.4 Dining & Restaurant	0.900	27	A++
Z2.2 Service Industry Development	0.336	129	A--	Z6.5 Housing	0.693	74	A
Z2.3 Financial Sector Development	0.174	131	A--	Z6.6 Culture and Entertainment	0.440	73	A
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.837	49	A+
Z3 Human Resource	0.684	124	A--	Z7 Global Connectivity	0.359	125	A--
Z3.1 Health	0.887	106	A-	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.609	106	A-	Z7.2 Land Transportation	0.400	147	A--
Z3.3 Status of the Labor Market	0.416	98	A-	Z7.3 Water Transportation	0.257	67	A
				Z7.4 Air Transportation	0.027	126	A--
				Z7.5 Information Connectivity	0.250	136	A--
				Z7.6 Residents Connectivity	0.018	132	A--
				Z7.7 Enterprises Connectivity	0.230	137	A--

GENEVA CITY COMPETITIVENESS

Table A2.83 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	18.50
Area (Sq Km)	18.30
GDP per Capita (\$)	62677
GDP Growth Rate (%)	0.99

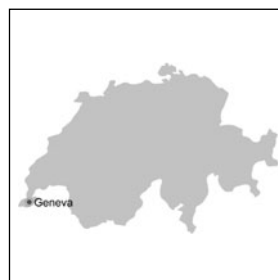


Table A2.84 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.456	68	A	Z3.4 Status of Talent	0.348	103	A-
Nominal/Real Exchange Rate Ratio	0.000	497	D+	Z3.5 Education Development	0.474	61	A
GDP	0.020	232	B	Z3.6 Cost of Labor Force	0.441	138	A--
GDP per Capita	1.000	1	A++	Z4 Hard Environment	0.681	62	A
GDP per Square Kilometer	0.985	2	A++	Z4.1 Basic Elements	0.622	135	A--
Real Economic Growth Rate (5 Years)	0.143	448	C--	Z4.2 Financial Market	0.574	67	A
Employment Rate	0.910	280	B--	Z4.3 The Ability for Innovation	0.546	58	A+
Labor Productivity	0.491	89	A	Z4.4 Market Scale	0.581	19	A++
Number of International Patents	0.012	259	B-	Z5 Soft Environment	0.910	8	A++
Multinational Corporation Score	0.240	60	A+	Z5.1 Market System	0.777	4	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.890	6	A++
Z1 Enterprise Quality	0.875	28	A++	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.594	56	A+
Z1.2 Corporate System	0.950	8	A++	Z5.5 Strategy and Experience	0.900	26	A++
Z1.3 Enterprise Management	0.900	48	A+	Z5.6 Paying Taxes	0.851	24	A++
Z1.4 Enterprise Operation	0.695	37	A+	Z6 Living Environment	0.912	12	A++
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.834	43	A+
Z1.6 Enterprise Performance	0.767	23	A++	Z6.2 Environmental Quality	0.973	22	A++
Z2 Industry Structure	0.588	41	A+	Z6.3 Shopping Environment	0.811	35	A+
Z2.1 Manufacturing Development	0.694	54	A+	Z6.4 Dining & Restaurant	0.680	132	A--
Z2.2 Service Industry Development	0.555	64	A	Z6.5 Housing	0.866	13	A++
Z2.3 Financial Sector Development	0.559	20	A++	Z6.6 Culture and Entertainment	0.774	4	A++
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.686	114	A-
Z3 Human Resource	0.782	37	A+	Z7 Global Connectivity	0.478	71	A
Z3.1 Health	0.969	17	A++	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.869	9	A++	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.642	18	A++	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.098	82	A
				Z7.5 Information Connectivity	0.422	62	A
				Z7.6 Residents Connectivity	0.544	11	A++
				Z7.7 Enterprises Connectivity	0.312	75	A

GLASGOW CITY COMPETITIVENESS

Table A2.85 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	58.07
Area (Sq Km)	175.00
GDP per Capita (\$)	51044
GDP Growth Rate (%)	2.96



Table A2.86 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.466	62	A	Z3.4 Status of Talent	0.599	17	A++
Nominal/Real Exchange Rate Ratio	0.016	470	D++	Z3.5 Education Development	0.562	23	A++
GDP	0.050	90	A	Z3.6 Cost of Labor Force	0.476	127	A--
GDP per Capita	0.814	19	A++	Z4 Hard Environment	0.672	64	A
GDP per Square Kilometer	0.263	38	A+	Z4.1 Basic Elements	0.620	137	A--
Real Economic Growth Rate (5 Years)	0.210	337	C+	Z4.2 Financial Market	0.710	5	A++
Employment Rate	0.896	321	C++	Z4.3 The Ability for Innovation	0.518	69	A
Labor Productivity	0.675	16	A++	Z4.4 Market Scale	0.443	62	A
Number of International Patents	0.114	127	A--	Z5 Soft Environment	0.743	78	A
Multinational Corporation Score	0.104	143	A--	Z5.1 Market System	0.563	98	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.766	67	A
Z1 Enterprise Quality	0.661	95	A-	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.550	110	A-	Z5.4 Public Service	0.579	63	A
Z1.2 Corporate System	0.800	57	A+	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.733	93	A-	Z5.6 Paying Taxes	0.883	5	A++
Z1.4 Enterprise Operation	0.551	77	A	Z6 Living Environment	0.870	22	A++
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.678	94	A-
Z1.6 Enterprise Performance	0.200	134	A--	Z6.2 Environmental Quality	0.952	42	A+
Z2 Industry Structure	0.465	104	A-	Z6.3 Shopping Environment	0.796	46	A+
Z2.1 Manufacturing Development	0.659	77	A	Z6.4 Dining & Restaurant	0.942	11	A++
Z2.2 Service Industry Development	0.446	103	A-	Z6.5 Housing	0.871	12	A++
Z2.3 Financial Sector Development	0.215	111	A-	Z6.6 Culture and Entertainment	0.500	37	A+
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.628	135	A--
Z3 Human Resource	0.763	57	A+	Z7 Global Connectivity	0.546	43	A+
Z3.1 Health	0.900	94	A-	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.715	59	A+	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.399	112	A-	Z7.3 Water Transportation	0.426	24	A++
				Z7.4 Air Transportation	0.071	95	A-
				Z7.5 Information Connectivity	0.440	52	A+
				Z7.6 Residents Connectivity	0.130	79	A
				Z7.7 Enterprises Connectivity	0.279	93	A-

GOTHENBURG CITY COMPETITIVENESS

Table A2.87 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	48.14
Area (Sq Km)	465.00
GDP per Capita (\$)	35796
GDP Growth Rate (%)	2.43



Table A2.88 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.271	217	B	Z3.4 Status of Talent	0.420	77	A
Nominal/Real Exchange Rate Ratio	0.014	488	D+	Z3.5 Education Development	0.383	119	A-
GDP	0.029	174	B++	Z3.6 Cost of Labor Force	0.611	93	A-
GDP per Capita	0.570	116	A-	Z4 Hard Environment	0.602	100	A-
GDP per Square Kilometer	0.058	211	B	Z4.1 Basic Elements	0.728	104	A-
Real Economic Growth Rate (5 Years)	0.192	369	C	Z4.2 Financial Market	0.541	73	A
Employment Rate	0.914	262	B-	Z4.3 The Ability for Innovation	0.487	84	A
Labor Productivity	0.502	83	A	Z4.4 Market Scale	0.299	109	A-
Number of International Patents	0.012	257	B-	Z5 Soft Environment	0.793	60	A+
Multinational Corporation Score	0.044	275	B--	Z5.1 Market System	0.584	94	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.810	60	A+
Z1 Enterprise Quality	0.863	32	A+	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	1.000	1	A++	Z5.4 Public Service	0.612	53	A+
Z1.2 Corporate System	0.800	57	A+	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.862	19	A++
Z1.4 Enterprise Operation	0.713	33	A+	Z6 Living Environment	0.756	132	A--
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.596	124	A--
Z1.6 Enterprise Performance	0.500	81	A	Z6.2 Environmental Quality	0.912	83	A
Z2 Industry Structure	0.491	88	A	Z6.3 Shopping Environment	0.880	19	A++
Z2.1 Manufacturing Development	0.701	49	A+	Z6.4 Dining & Restaurant	0.669	135	A--
Z2.2 Service Industry Development	0.391	120	A-	Z6.5 Housing	0.683	82	A
Z2.3 Financial Sector Development	0.332	57	A+	Z6.6 Culture and Entertainment	0.405	106	A-
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.515	144	A--
Z3 Human Resource	0.759	61	A	Z7 Global Connectivity	0.484	66	A
Z3.1 Health	0.950	32	A+	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.902	3	A++	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.367	130	A--	Z7.3 Water Transportation	0.514	16	A++
				Z7.4 Air Transportation	0.041	116	A-
				Z7.5 Information Connectivity	0.267	129	A--
				Z7.6 Residents Connectivity	0.229	49	A+
				Z7.7 Enterprises Connectivity	0.254	110	A-

GUADALAJARA CITY COMPETITIVENESS

Table A2.89 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10 000)	409.59
Area (Sq Km)	398.37
GDP per Capita (\$)	8968
GDP Growth Rate (%)	8.24



Table A2.90 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.304	180	B++	Z3.4 Status of Talent	0.457	43	A+
Nominal/Real Exchange Rate Ratio	0.081	270	B-	Z3.5 Education Development	0.367	132	A--
GDP	0.062	69	A	Z3.6 Cost of Labor Force	0.794	38	A+
GDP per Capita	0.140	244	B-	Z4 Hard Environment	0.540	124	A--
GDP per Square Kilometer	0.143	108	A-	Z4.1 Basic Elements	0.764	87	A
Real Economic Growth Rate (5 Years)	0.391	137	A--	Z4.2 Financial Market	0.497	91	A-
Employment Rate	0.970	36	A+	Z4.3 The Ability for Innovation	0.347	127	A--
Labor Productivity	0.141	237	B	Z4.4 Market Scale	0.233	123	A--
Number of International Patents	0.014	242	B-	Z5 Soft Environment	0.553	140	A--
Multinational Corporation Score	0.106	141	A--	Z5.1 Market System	0.466	125	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.664	92	A-
Z1 Enterprise Quality	0.457	143	A--	Z5.3 Social Management	0.400	144	A--
Z1.1 Corporate Culture	0.450	135	A--	Z5.4 Public Service	0.538	87	A
Z1.2 Corporate System	0.500	127	A--	Z5.5 Strategy and Experience	0.300	147	A--
Z1.3 Enterprise Management	0.700	98	A-	Z5.6 Paying Taxes	0.679	106	A-
Z1.4 Enterprise Operation	0.365	118	A-	Z6 Living Environment	0.809	87	A
Z1.5 Brand	0.200	135	A--	Z6.1 Natural Environment	0.796	53	A+
Z1.6 Enterprise Performance	0.300	123	A--	Z6.2 Environmental Quality	0.732	114	A-
Z2 Industry Structure	0.409	119	A-	Z6.3 Shopping Environment	0.622	137	A--
Z2.1 Manufacturing Development	0.554	113	A-	Z6.4 Dining & Restaurant	0.884	37	A+
Z2.2 Service Industry Development	0.472	98	A-	Z6.5 Housing	0.524	141	A--
Z2.3 Financial Sector Development	0.140	148	A--	Z6.6 Culture and Entertainment	0.524	29	A++
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.909	17	A++
Z3 Human Resource	0.694	118	A-	Z7 Global Connectivity	0.308	140	A--
Z3.1 Health	0.785	131	A--	Z7.1 Location Convenience	0.140	140	A--
Z3.2 Literacy Quality	0.582	123	A--	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.337	146	A--	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.000	141	A--
				Z7.5 Information Connectivity	0.385	78	A
				Z7.6 Residents Connectivity	0.091	89	A
				Z7.7 Enterprises Connectivity	0.247	114	A-

GUANGZHOU CITY COMPETITIVENESS

Table A2.91 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	617.28
Area (Sq Km)	3843.00
GDP per Capita (\$)	7248
GDP Growth Rate (%)	14.23



Table A2.92 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.363	130	A--	Z3.4 Status of Talent	0.091	127	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.522	34	A+
GDP	0.100	39	A+	Z3.6 Cost of Labor Force	0.816	33	A+
GDP per Capita	0.113	263	B-	Z4 Hard Environment	0.599	101	A-
GDP per Square Kilometer	0.024	281	B--	Z4.1 Basic Elements	0.899	11	A++
Real Economic Growth Rate (5 Years)	0.596	44	A+	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.974	29	A++	Z4.3 The Ability for Innovation	0.368	120	A-
Labor Productivity	0.084	272	B--	Z4.4 Market Scale	0.350	95	A-
Number of International Patents	0.055	169	B++	Z5 Soft Environment	0.608	118	A-
Multinational Corporation Score	0.228	63	A	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.601	109	A-	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.438	128	A--
Z1.2 Corporate System	0.450	138	A--	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.567	133	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.256	145	A--	Z6 Living Environment	0.832	57	A+
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.835	39	A+
Z1.6 Enterprise Performance	0.833	13	A++	Z6.2 Environmental Quality	0.671	121	A--
Z2 Industry Structure	0.439	114	A-	Z6.3 Shopping Environment	0.818	31	A+
Z2.1 Manufacturing Development	0.515	125	A--	Z6.4 Dining & Restaurant	0.844	55	A+
Z2.2 Service Industry Development	0.493	91	A-	Z6.5 Housing	0.631	115	A-
Z2.3 Financial Sector Development	0.274	81	A	Z6.6 Culture and Entertainment	0.500	37	A+
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.831	66	A
Z3 Human Resource	0.714	104	A-	Z7 Global Connectivity	0.467	80	A
Z3.1 Health	0.885	108	A-	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.565	129	A--	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.539	34	A+	Z7.3 Water Transportation	0.416	25	A++
				Z7.4 Air Transportation	0.212	41	A+
				Z7.5 Information Connectivity	0.334	106	A-
				Z7.6 Residents Connectivity	0.074	94	A-
				Z7.7 Enterprises Connectivity	0.280	92	A-

HAMBURG CITY COMPETITIVENESS

Table A2.93 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	174.36
Area (Sq Km)	755.30
GDP per Capita (\$)	37700
GDP Growth Rate (%)	2.07



Table A2.94 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.492	40	A+	Z3.4 Status of Talent	0.393	89	A
Nominal/Real Exchange Rate Ratio	0.026	415	C-	Z3.5 Education Development	0.423	96	A-
GDP	0.112	31	A+	Z3.6 Cost of Labor Force	0.613	91	A-
GDP per Capita	0.600	104	A-	Z4 Hard Environment	0.659	76	A
GDP per Square Kilometer	0.135	111	A-	Z4.1 Basic Elements	0.538	148	A--
Real Economic Growth Rate (5 Years)	0.180	389	C	Z4.2 Financial Market	0.584	62	A
Employment Rate	0.857	396	C-	Z4.3 The Ability for Innovation	0.686	17	A++
Labor Productivity	0.456	106	A-	Z4.4 Market Scale	0.439	66	A
Number of International Patents	0.385	26	A++	Z5 Soft Environment	0.849	35	A+
Multinational Corporation Score	0.219	71	A	Z5.1 Market System	0.607	56	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.876	9	A++
Z1 Enterprise Quality	0.829	40	A+	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.850	23	A++	Z5.4 Public Service	0.569	72	A
Z1.2 Corporate System	0.850	41	A+	Z5.5 Strategy and Experience	0.900	26	A++
Z1.3 Enterprise Management	0.900	48	A+	Z5.6 Paying Taxes	0.825	28	A++
Z1.4 Enterprise Operation	0.657	53	A+	Z6 Living Environment	0.864	23	A++
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.617	115	A-
Z1.6 Enterprise Performance	0.600	55	A+	Z6.2 Environmental Quality	0.972	23	A++
Z2 Industry Structure	0.525	68	A	Z6.3 Shopping Environment	0.978	5	A++
Z2.1 Manufacturing Development	0.745	37	A+	Z6.4 Dining & Restaurant	0.825	74	A
Z2.2 Service Industry Development	0.531	75	A	Z6.5 Housing	0.885	9	A++
Z2.3 Financial Sector Development	0.279	79	A	Z6.6 Culture and Entertainment	0.381	120	A-
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.668	122	A--
Z3 Human Resource	0.720	94	A-	Z7 Global Connectivity	0.684	15	A++
Z3.1 Health	0.937	51	A+	Z7.1 Location Convenience	1.000	1	A++
Z3.2 Literacy Quality	0.657	83	A	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.427	89	A	Z7.3 Water Transportation	0.567	10	A++
				Z7.4 Air Transportation	0.098	82	A
				Z7.5 Information Connectivity	0.526	24	A++
				Z7.6 Residents Connectivity	0.184	63	A
				Z7.7 Enterprises Connectivity	0.325	66	A

HANGZHOU CITY COMPETITIVENESS

Table A2.95 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	251.69
Area (Sq Km)	3068.00
GDP per Capita (\$)	5494
GDP Growth Rate (%)	14.46



Table A2.96 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.266	222	B	Z3.4 Status of Talent	0.095	125	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.471	68	A
GDP	0.049	98	A-	Z3.6 Cost of Labor Force	0.771	41	A+
GDP per Capita	0.085	290	B--	Z4 Hard Environment	0.545	121	A--
GDP per Square Kilometer	0.014	321	C++	Z4.1 Basic Elements	0.875	21	A++
Real Economic Growth Rate (5 Years)	0.604	40	A+	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.939	166	B++	Z4.3 The Ability for Innovation	0.347	127	A--
Labor Productivity	0.073	287	B--	Z4.4 Market Scale	0.209	132	A--
Number of International Patents	0.030	203	B+	Z5 Soft Environment	0.624	115	A-
Multinational Corporation Score	0.058	227	B	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.414	146	A--	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.400	144	A--	Z5.4 Public Service	0.426	136	A--
Z1.2 Corporate System	0.400	141	A--	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.600	124	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.308	132	A--	Z6 Living Environment	0.808	88	A
Z1.5 Brand	0.200	135	A--	Z6.1 Natural Environment	0.909	8	A++
Z1.6 Enterprise Performance	0.367	109	A-	Z6.2 Environmental Quality	0.598	131	A--
Z2 Industry Structure	0.368	130	A--	Z6.3 Shopping Environment	0.807	37	A+
Z2.1 Manufacturing Development	0.501	128	A--	Z6.4 Dining & Restaurant	0.710	122	A--
Z2.2 Service Industry Development	0.315	136	A--	Z6.5 Housing	0.671	89	A
Z2.3 Financial Sector Development	0.185	127	A--	Z6.6 Culture and Entertainment	0.452	64	A
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.835	54	A+
Z3 Human Resource	0.711	106	A-	Z7 Global Connectivity	0.354	127	A--
Z3.1 Health	0.941	44	A+	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.691	67	A	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.434	86	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.044	114	A-
				Z7.5 Information Connectivity	0.314	115	A-
				Z7.6 Residents Connectivity	0.051	113	A-
				Z7.7 Enterprises Connectivity	0.239	121	A--

HEFEI CITY COMPETITIVENESS

Table A2.97 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	175.31
Area (Sq Km)	596.00
GDP per Capita (\$)	4522
GDP Growth Rate (%)	17.37



Table A2.98 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.225	265	B-	Z3.4 Status of Talent	0.050	144	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.515	38	A+
GDP	0.014	279	B--	Z3.6 Cost of Labor Force	0.919	5	A++
GDP per Capita	0.069	311	C++	Z4 Hard Environment	0.507	146	A--
GDP per Square Kilometer	0.021	288	B--	Z4.1 Basic Elements	0.828	51	A+
Real Economic Growth Rate (5 Years)	0.703	12	A++	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.861	393	C-	Z4.3 The Ability for Innovation	0.315	144	A--
Labor Productivity	0.063	313	C++	Z4.4 Market Scale	0.160	142	A--
Number of International Patents	0.005	309	C++	Z5 Soft Environment	0.587	125	A--
Multinational Corporation Score	0.023	338	C+	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.541	127	A--	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.550	110	A-	Z5.4 Public Service	0.421	139	A--
Z1.2 Corporate System	0.550	121	A--	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.567	133	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.275	141	A--	Z6 Living Environment	0.828	63	A
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.797	52	A+
Z1.6 Enterprise Performance	0.533	70	A	Z6.2 Environmental Quality	0.661	122	A--
Z2 Industry Structure	0.350	139	A--	Z6.3 Shopping Environment	0.764	65	A
Z2.1 Manufacturing Development	0.533	119	A-	Z6.4 Dining & Restaurant	0.897	30	A++
Z2.2 Service Industry Development	0.302	141	A--	Z6.5 Housing	0.685	80	A
Z2.3 Financial Sector Development	0.161	140	A--	Z6.6 Culture and Entertainment	0.464	53	A+
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.841	45	A+
Z3 Human Resource	0.710	108	A-	Z7 Global Connectivity	0.276	148	A--
Z3.1 Health	0.887	106	A-	Z7.1 Location Convenience	0.216	128	A--
Z3.2 Literacy Quality	0.606	108	A-	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.424	93	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.010	137	A--
				Z7.5 Information Connectivity	0.236	140	A--
				Z7.6 Residents Connectivity	0.004	148	A--
				Z7.7 Enterprises Connectivity	0.227	143	A--

HELSINKI CITY COMPETITIVENESS

Table A2.99 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	55.90
Area (Sq Km)	188.00
GDP per Capita (\$)	53920
GDP Growth Rate (%)	2.88



Table A2.100 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.575	16	A++	Z3.4 Status of Talent	0.729	8	A++
Nominal/Real Exchange Rate Ratio	0.020	446	C--	Z3.5 Education Development	0.423	96	A-
GDP	0.036	137	A--	Z3.6 Cost of Labor Force	0.579	102	A-
GDP per Capita	0.860	11	A++	Z4 Hard Environment	0.669	67	A
GDP per Square Kilometer	0.249	49	A+	Z4.1 Basic Elements	0.699	115	A-
Real Economic Growth Rate (5 Years)	0.208	341	C+	Z4.2 Financial Market	0.542	72	A
Employment Rate	0.884	360	C+	Z4.3 The Ability for Innovation	0.668	23	A++
Labor Productivity	0.691	12	A++	Z4.4 Market Scale	0.372	90	A
Number of International Patents	0.379	28	A++	Z5 Soft Environment	0.891	17	A++
Multinational Corporation Score	0.222	66	A	Z5.1 Market System	0.613	55	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.836	21	A++
Z1 Enterprise Quality	0.918	11	A++	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.641	46	A+
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.900	48	A+	Z5.6 Paying Taxes	0.820	34	A+
Z1.4 Enterprise Operation	0.913	4	A++	Z6 Living Environment	0.796	103	A-
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.558	131	A--
Z1.6 Enterprise Performance	0.833	13	A++	Z6.2 Environmental Quality	0.942	54	A+
Z2 Industry Structure	0.631	24	A++	Z6.3 Shopping Environment	0.687	118	A-
Z2.1 Manufacturing Development	0.820	11	A++	Z6.4 Dining & Restaurant	0.773	99	A-
Z2.2 Service Industry Development	0.552	66	A	Z6.5 Housing	0.704	59	A+
Z2.3 Financial Sector Development	0.417	42	A+	Z6.6 Culture and Entertainment	0.548	21	A++
Z2.4 High-Tech Industry Development	0.714	7	A++	Z6.7 Social Security	0.698	105	A-
Z3 Human Resource	0.834	11	A++	Z7 Global Connectivity	0.552	38	A+
Z3.1 Health	0.937	51	A+	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.911	2	A++	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.415	100	A-	Z7.3 Water Transportation	0.297	55	A+
				Z7.4 Air Transportation	0.115	74	A
				Z7.5 Information Connectivity	0.420	63	A
				Z7.6 Residents Connectivity	0.292	34	A+
				Z7.7 Enterprises Connectivity	0.307	78	A

HO CHI MINH CITY COMPETITIVENESS

Table A2.101 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	591.16
Area (Sq Km)	2059.20
GDP per Capita (\$)	1264
GDP Growth Rate (%)	11.25



Table A2.102 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.193	318	C++	Z3.4 Status of Talent	0.276	114	A-
Nominal/Real Exchange Rate Ratio	0.418	8	A++	Z3.5 Education Development	0.373	127	A--
GDP	0.012	296	B--	Z3.6 Cost of Labor Force	0.807	35	A+
GDP per Capita	0.017	431	C--	Z4 Hard Environment	0.538	125	A--
GDP per Square Kilometer	0.006	420	C-	Z4.1 Basic Elements	0.872	26	A++
Real Economic Growth Rate (5 Years)	0.494	83	A	Z4.2 Financial Market	0.477	101	A-
Employment Rate	0.927	218	B	Z4.3 The Ability for Innovation	0.286	149	A--
Labor Productivity	0.013	453	D++	Z4.4 Market Scale	0.202	135	A--
Number of International Patents	0.002	372	C	Z5 Soft Environment	0.551	141	A--
Multinational Corporation Score	0.195	76	A	Z5.1 Market System	0.413	135	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.681	89	A
Z1 Enterprise Quality	0.510	134	A--	Z5.3 Social Management	0.400	144	A--
Z1.1 Corporate Culture	0.450	135	A--	Z5.4 Public Service	0.492	111	A-
Z1.2 Corporate System	0.250	147	A--	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.467	147	A--	Z5.6 Paying Taxes	0.551	141	A--
Z1.4 Enterprise Operation	0.406	110	A-	Z6 Living Environment	0.789	110	A-
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.695	86	A
Z1.6 Enterprise Performance	0.833	13	A++	Z6.2 Environmental Quality	0.654	125	A--
Z2 Industry Structure	0.324	144	A--	Z6.3 Shopping Environment	0.688	117	A-
Z2.1 Manufacturing Development	0.223	150	A--	Z6.4 Dining & Restaurant	0.873	43	A+
Z2.2 Service Industry Development	0.415	114	A-	Z6.5 Housing	0.733	40	A+
Z2.3 Financial Sector Development	0.257	92	A-	Z6.6 Culture and Entertainment	0.488	40	A+
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.735	91	A-
Z3 Human Resource	0.661	138	A--	Z7 Global Connectivity	0.381	116	A-
Z3.1 Health	0.598	144	A--	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.516	143	A--	Z7.2 Land Transportation	0.500	142	A--
Z3.3 Status of the Labor Market	0.597	22	A++	Z7.3 Water Transportation	0.346	44	A+
				Z7.4 Air Transportation	0.048	111	A-
				Z7.5 Information Connectivity	0.256	132	A--
				Z7.6 Residents Connectivity	0.012	139	A--
				Z7.7 Enterprises Connectivity	0.288	89	A

HONG KONG CITY COMPETITIVENESS

Table A2.103 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	693.32
Area (Sq Km)	1107.00
GDP per Capita (\$)	25405
GDP Growth Rate (%)	5.00



Table A2.104 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.529	26	A++	Z3.4 Status of Talent	0.287	113	A-
Nominal/Real Exchange Rate Ratio	0.055	306	C++	Z3.5 Education Development	0.509	40	A+
GDP	0.307	7	A++	Z3.6 Cost of Labor Force	0.425	142	A--
GDP per Capita	0.403	182	B+	Z4 Hard Environment	0.698	54	A+
GDP per Square Kilometer	0.252	46	A+	Z4.1 Basic Elements	0.852	37	A+
Real Economic Growth Rate (5 Years)	0.280	226	B	Z4.2 Financial Market	0.608	55	A+
Employment Rate	0.935	183	B+	Z4.3 The Ability for Innovation	0.431	102	A-
Labor Productivity	0.336	173	B++	Z4.4 Market Scale	0.488	38	A+
Number of International Patents	0.024	213	B	Z5 Soft Environment	0.943	3	A++
Multinational Corporation Score	0.721	3	A++	Z5.1 Market System	0.983	2	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.746	71	A
Z1 Enterprise Quality	0.783	58	A+	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.774	28	A++
Z1.2 Corporate System	0.750	70	A	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.767	87	A	Z5.6 Paying Taxes	0.990	2	A++
Z1.4 Enterprise Operation	0.454	101	A-	Z6 Living Environment	0.793	106	A-
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.900	9	A++
Z1.6 Enterprise Performance	0.933	5	A++	Z6.2 Environmental Quality	0.893	92	A-
Z2 Industry Structure	0.777	5	A++	Z6.3 Shopping Environment	0.811	35	A+
Z2.1 Manufacturing Development	0.763	23	A++	Z6.4 Dining & Restaurant	0.570	148	A--
Z2.2 Service Industry Development	0.801	5	A++	Z6.5 Housing	0.372	145	A--
Z2.3 Financial Sector Development	0.993	3	A++	Z6.6 Culture and Entertainment	0.345	130	A--
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	1.000	1	A++
Z3 Human Resource	0.736	84	A	Z7 Global Connectivity	0.681	17	A++
Z3.1 Health	0.998	2	A++	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.662	80	A	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.644	17	A++	Z7.3 Water Transportation	0.877	2	A++
				Z7.4 Air Transportation	0.277	25	A++
				Z7.5 Information Connectivity	0.509	29	A++
				Z7.6 Residents Connectivity	0.240	45	A+
				Z7.7 Enterprises Connectivity	0.420	33	A+

HOUSTON CITY COMPETITIVENESS

Table A2.105 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	211.79
Area (Sq Km)	1440.00
GDP per Capita (\$)	46702
GDP Growth Rate (%)	2.11



Table A2.106 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.555	20	A++	Z3.4 Status of Talent	0.370	98	A-
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.590	19	A++
GDP	0.169	18	A++	Z3.6 Cost of Labor Force	0.534	115	A-
GDP per Capita	0.744	38	A+	Z4 Hard Environment	0.800	13	A++
GDP per Square Kilometer	0.107	145	A--	Z4.1 Basic Elements	0.827	52	A+
Real Economic Growth Rate (5 Years)	0.181	386	C	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.887	347	C+	Z4.3 The Ability for Innovation	0.675	20	A++
Labor Productivity	0.681	15	A++	Z4.4 Market Scale	0.558	23	A++
Number of International Patents	0.487	12	A++	Z5 Soft Environment	0.853	32	A+
Multinational Corporation Score	0.222	66	A	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.913	13	A++	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.900	14	A++	Z5.4 Public Service	0.782	21	A++
Z1.2 Corporate System	0.950	8	A++	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.967	12	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.504	91	A-	Z6 Living Environment	0.839	51	A+
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.895	12	A++
Z1.6 Enterprise Performance	0.900	7	A++	Z6.2 Environmental Quality	0.957	35	A+
Z2 Industry Structure	0.607	30	A++	Z6.3 Shopping Environment	0.753	71	A
Z2.1 Manufacturing Development	0.854	6	A++	Z6.4 Dining & Restaurant	0.727	114	A-
Z2.2 Service Industry Development	0.612	39	A+	Z6.5 Housing	0.761	26	A++
Z2.3 Financial Sector Development	0.303	68	A	Z6.6 Culture and Entertainment	0.393	112	A-
Z2.4 High-Tech Industry Development	0.637	20	A++	Z6.7 Social Security	0.691	109	A-
Z3 Human Resource	0.739	80	A	Z7 Global Connectivity	0.595	32	A+
Z3.1 Health	0.904	89	A	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.722	56	A+	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.416	98	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.457	7	A++
				Z7.5 Information Connectivity	0.497	36	A+
				Z7.6 Residents Connectivity	0.209	56	A+
				Z7.7 Enterprises Connectivity	0.443	26	A++

HSINCHU CITY COMPETITIVENESS

Table A2.107 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	39.07
Area (Sq Km)	104.15
GDP per Capita (\$)	11 668
GDP Growth Rate (%)	2.13



Table A2.108 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.203	299	B--	Z3.4 Status of Talent	0.162	121	A--
Nominal/Real Exchange Rate Ratio	0.118	247	B-	Z3.5 Education Development	0.410	103	A-
GDP	0.008	348	C+	Z3.6 Cost of Labor Force	0.659	69	A
GDP per Capita	0.183	223	B	Z4 Hard Environment	0.617	95	A-
GDP per Square Kilometer	0.070	192	B+	Z4.1 Basic Elements	0.894	14	A++
Real Economic Growth Rate (5 Years)	0.182	384	C	Z4.2 Financial Market	0.515	86	A
Employment Rate	0.965	57	A+	Z4.3 The Ability for Innovation	0.453	95	A-
Labor Productivity	0.167	226	B	Z4.4 Market Scale	0.243	121	A--
Number of International Patents	0.002	352	C+	Z5 Soft Environment	0.691	95	A-
Multinational Corporation Score	0.062	212	B	Z5.1 Market System	0.467	122	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.572	111	A-
Z1 Enterprise Quality	0.559	123	A--	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.550	80	A
Z1.2 Corporate System	0.500	127	A--	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.733	93	A-	Z5.6 Paying Taxes	0.818	35	A+
Z1.4 Enterprise Operation	0.442	105	A-	Z6 Living Environment	0.816	80	A
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.862	24	A++
Z1.6 Enterprise Performance	0.200	134	A--	Z6.2 Environmental Quality	0.885	94	A-
Z2 Industry Structure	0.364	131	A--	Z6.3 Shopping Environment	0.724	91	A-
Z2.1 Manufacturing Development	0.499	130	A--	Z6.4 Dining & Restaurant	0.667	136	A--
Z2.2 Service Industry Development	0.325	131	A--	Z6.5 Housing	0.655	102	A-
Z2.3 Financial Sector Development	0.163	137	A--	Z6.6 Culture and Entertainment	0.310	144	A--
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.933	11	A++
Z3 Human Resource	0.667	135	A--	Z7 Global Connectivity	0.387	113	A-
Z3.1 Health	0.941	44	A+	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.668	79	A	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.354	139	A--	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.000	141	A--
				Z7.5 Information Connectivity	0.155	150	A--
				Z7.6 Residents Connectivity	0.156	73	A
				Z7.7 Enterprises Connectivity	0.222	149	A--

INDIANAPOLIS CITY COMPETITIVENESS

Table A2.109 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	78.29
Area (Sq Km)	791.93
GDP per Capita (\$)	43 315
GDP Growth Rate (%)	2.26



Table A2.110 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.423	84	A	Z3.4 Status of Talent	0.444	51	A+
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.468	73	A
GDP	0.058	75	A	Z3.6 Cost of Labor Force	0.621	86	A
GDP per Capita	0.690	61	A	Z4 Hard Environment	0.752	29	A++
GDP per Square Kilometer	0.066	197	B+	Z4.1 Basic Elements	0.891	16	A++
Real Economic Growth Rate (5 Years)	0.186	377	C	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.888	342	C+	Z4.3 The Ability for Innovation	0.532	63	A
Labor Productivity	0.572	54	A+	Z4.4 Market Scale	0.475	44	A+
Number of International Patents	0.324	51	A+	Z5 Soft Environment	0.840	39	A+
Multinational Corporation Score	0.085	172	B++	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.822	42	A+	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.750	52	A+	Z5.4 Public Service	0.909	3	A++
Z1.2 Corporate System	1.000	1	A++	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.636	61	A	Z6 Living Environment	0.817	77	A
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.650	104	A-
Z1.6 Enterprise Performance	0.500	81	A	Z6.2 Environmental Quality	0.980	11	A++
Z2 Industry Structure	0.540	57	A+	Z6.3 Shopping Environment	0.731	86	A
Z2.1 Manufacturing Development	0.723	42	A+	Z6.4 Dining & Restaurant	0.838	62	A
Z2.2 Service Industry Development	0.475	97	A-	Z6.5 Housing	0.726	49	A+
Z2.3 Financial Sector Development	0.288	75	A	Z6.6 Culture and Entertainment	0.429	82	A
Z2.4 High-Tech Industry Development	0.653	14	A++	Z6.7 Social Security	0.686	114	A-
Z3 Human Resource	0.739	80	A	Z7 Global Connectivity	0.443	95	A-
Z3.1 Health	0.882	114	A-	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.715	59	A+	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.409	106	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.273	26	A++
				Z7.5 Information Connectivity	0.227	143	A--
				Z7.6 Residents Connectivity	0.040	119	A-
				Z7.7 Enterprises Connectivity	0.349	50	A+

ISTANBUL CITY COMPETITIVENESS

Table A2.111 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	1180.00
Area (Sq Km)	254.00
GDP per Capita (\$)	7158
GDP Growth Rate (%)	7.51

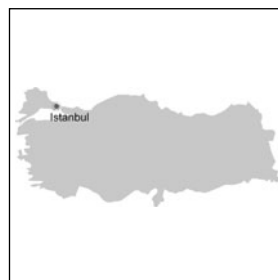


Table A2.112 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.355	136	A--	Z3.4 Status of Talent	0.373	95	A-
Nominal/Real Exchange Rate Ratio	0.090	265	B-	Z3.5 Education Development	0.497	45	A+
GDP	0.144	22	A++	Z3.6 Cost of Labor Force	0.694	54	A+
GDP per Capita	0.111	264	B-	Z4 Hard Environment	0.525	135	A--
GDP per Square Kilometer	0.072	186	B+	Z4.1 Basic Elements	0.630	133	A--
Real Economic Growth Rate (5 Years)	0.366	158	B++	Z4.2 Financial Market	0.345	144	A--
Employment Rate	0.800	440	C--	Z4.3 The Ability for Innovation	0.402	112	A-
Labor Productivity	0.109	253	B-	Z4.4 Market Scale	0.412	80	A
Number of International Patents	0.095	137	A--	Z5 Soft Environment	0.632	110	A-
Multinational Corporation Score	0.344	38	A+	Z5.1 Market System	0.471	121	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.796	62	A
Z1 Enterprise Quality	0.701	84	A	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.550	110	A-	Z5.4 Public Service	0.556	78	A
Z1.2 Corporate System	0.500	127	A--	Z5.5 Strategy and Experience	0.400	142	A--
Z1.3 Enterprise Management	0.567	133	A--	Z5.6 Paying Taxes	0.760	95	A-
Z1.4 Enterprise Operation	0.503	93	A-	Z6 Living Environment	0.763	128	A--
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.840	35	A+
Z1.6 Enterprise Performance	0.833	13	A++	Z6.2 Environmental Quality	0.596	132	A--
Z2 Industry Structure	0.496	84	A	Z6.3 Shopping Environment	0.515	143	A--
Z2.1 Manufacturing Development	0.537	118	A-	Z6.4 Dining & Restaurant	0.791	90	A
Z2.2 Service Industry Development	0.595	48	A+	Z6.5 Housing	0.681	83	A
Z2.3 Financial Sector Development	0.375	50	A+	Z6.6 Culture and Entertainment	0.452	64	A
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.833	58	A+
Z3 Human Resource	0.685	123	A--	Z7 Global Connectivity	0.518	55	A+
Z3.1 Health	0.444	149	A--	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.530	139	A--	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.742	7	A++	Z7.3 Water Transportation	0.358	37	A+
				Z7.4 Air Transportation	0.138	61	A
				Z7.5 Information Connectivity	0.520	26	A++
				Z7.6 Residents Connectivity	0.102	84	A
				Z7.7 Enterprises Connectivity	0.323	69	A

JAKARTA CITY COMPETITIVENESS

Table A2.113 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	869.96
Area (Sq Km)	661.52
GDP per Capita (\$)	3363
GDP Growth Rate (%)	5.35



Table A2.114 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.245	248	B-	Z3.4 Status of Talent	0.259	116	A-
Nominal/Real Exchange Rate Ratio	0.259	130	A--	Z3.5 Education Development	0.380	121	A--
GDP	0.050	93	A-	Z3.6 Cost of Labor Force	0.799	37	A+
GDP per Capita	0.051	360	C+	Z4 Hard Environment	0.556	115	A-
GDP per Square Kilometer	0.069	195	B+	Z4.1 Basic Elements	0.872	26	A++
Real Economic Growth Rate (5 Years)	0.292	210	B+	Z4.2 Financial Market	0.368	142	A--
Employment Rate	0.815	433	C--	Z4.3 The Ability for Innovation	0.342	131	A--
Labor Productivity	0.048	349	C+	Z4.4 Market Scale	0.315	105	A-
Number of International Patents	0.007	292	B--	Z5 Soft Environment	0.532	144	A--
Multinational Corporation Score	0.375	30	A++	Z5.1 Market System	0.249	150	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.434	144	A--
Z1 Enterprise Quality	0.713	81	A	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.353	146	A--
Z1.2 Corporate System	0.450	138	A--	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.667	106	A-	Z5.6 Paying Taxes	0.693	104	A-
Z1.4 Enterprise Operation	0.303	135	A--	Z6 Living Environment	0.559	150	A--
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.470	141	A--
Z1.6 Enterprise Performance	1.000	1	A++	Z6.2 Environmental Quality	0.628	128	A--
Z2 Industry Structure	0.545	51	A+	Z6.3 Shopping Environment	0.340	149	A--
Z2.1 Manufacturing Development	0.611	97	A-	Z6.4 Dining & Restaurant	0.739	110	A-
Z2.2 Service Industry Development	0.638	33	A+	Z6.5 Housing	0.252	150	A--
Z2.3 Financial Sector Development	0.454	34	A+	Z6.6 Culture and Entertainment	0.333	135	A--
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.685	116	A-
Z3 Human Resource	0.717	99	A-	Z7 Global Connectivity	0.451	88	A
Z3.1 Health	0.776	132	A--	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.570	127	A--	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.650	16	A++	Z7.3 Water Transportation	0.368	34	A+
				Z7.4 Air Transportation	0.182	52	A+
				Z7.5 Information Connectivity	0.409	67	A
				Z7.6 Residents Connectivity	0.040	119	A-
				Z7.7 Enterprises Connectivity	0.326	65	A

JOHANNESBURG CITY COMPETITIVENESS

Table A2.115 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	378.77
Area (Sq Km)	1644.00
GDP per Capita (\$)	6477
GDP Growth Rate (%)	4.84

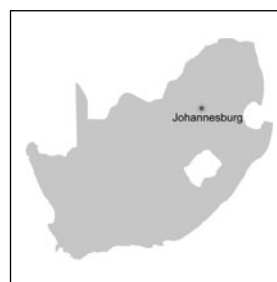


Table A2.116 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.265	224	B	Z3.4 Status of Talent	0.428	65	A
Nominal/Real Exchange Rate Ratio	0.199	145	A--	Z3.5 Education Development	0.413	102	A-
GDP	0.042	123	A--	Z3.6 Cost of Labor Force	0.853	20	A++
GDP per Capita	0.100	273	B--	Z4 Hard Environment	0.564	109	A-
GDP per Square Kilometer	0.023	284	B--	Z4.1 Basic Elements	0.797	73	A
Real Economic Growth Rate (5 Years)	0.275	237	B	Z4.2 Financial Market	0.519	83	A
Employment Rate	0.591	485	D+	Z4.3 The Ability for Innovation	0.393	114	A-
Labor Productivity	0.105	259	B-	Z4.4 Market Scale	0.216	129	A--
Number of International Patents	0.081	150	A--	Z5 Soft Environment	0.724	85	A
Multinational Corporation Score	0.286	50	A+	Z5.1 Market System	0.455	130	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.787	64	A
Z1 Enterprise Quality	0.747	68	A	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.578	66	A
Z1.2 Corporate System	0.600	110	A-	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.667	106	A-	Z5.6 Paying Taxes	0.766	93	A-
Z1.4 Enterprise Operation	0.504	91	A-	Z6 Living Environment	0.821	74	A
Z1.5 Brand	1.000	1	A++	Z6.1 Natural Environment	0.727	79	A
Z1.6 Enterprise Performance	0.533	70	A	Z6.2 Environmental Quality	0.929	73	A
Z2 Industry Structure	0.602	33	A+	Z6.3 Shopping Environment	0.718	101	A-
Z2.1 Manufacturing Development	0.748	32	A+	Z6.4 Dining & Restaurant	0.755	103	A-
Z2.2 Service Industry Development	0.691	22	A++	Z6.5 Housing	0.663	95	A-
Z2.3 Financial Sector Development	0.494	27	A++	Z6.6 Culture and Entertainment	0.417	93	A-
Z2.4 High-Tech Industry Development	0.453	130	A--	Z6.7 Social Security	0.851	41	A+
Z3 Human Resource	0.676	131	A--	Z7 Global Connectivity	0.381	116	A-
Z3.1 Health	0.435	150	A--	Z7.1 Location Convenience	0.112	146	A--
Z3.2 Literacy Quality	0.565	129	A--	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.542	32	A+	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.106	78	A
				Z7.5 Information Connectivity	0.355	95	A-
				Z7.6 Residents Connectivity	0.185	62	A
				Z7.7 Enterprises Connectivity	0.301	81	A

KAOHSIUNG CITY COMPETITIVENESS

Table A2.117 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	151.06
Area (Sq Km)	153.59
GDP per Capita (\$)	10821
GDP Growth Rate (%)	2.91



Table A2.118 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.261	227	B	Z3.4 Status of Talent	0.163	120	A-
Nominal/Real Exchange Rate Ratio	0.118	247	B-	Z3.5 Education Development	0.444	86	A
GDP	0.029	171	B++	Z3.6 Cost of Labor Force	0.687	56	A+
GDP per Capita	0.170	229	B	Z4 Hard Environment	0.604	99	A-
GDP per Square Kilometer	0.175	80	A	Z4.1 Basic Elements	0.861	31	A+
Real Economic Growth Rate (5 Years)	0.209	340	C+	Z4.2 Financial Market	0.515	86	A
Employment Rate	0.954	104	A-	Z4.3 The Ability for Innovation	0.434	101	A-
Labor Productivity	0.164	230	B	Z4.4 Market Scale	0.251	120	A-
Number of International Patents	0.013	249	B-	Z5 Soft Environment	0.631	111	A-
Multinational Corporation Score	0.085	172	B++	Z5.1 Market System	0.467	122	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.572	111	A-
Z1 Enterprise Quality	0.532	130	A--	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.600	100	A-	Z5.4 Public Service	0.516	106	A-
Z1.2 Corporate System	0.500	127	A--	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.633	118	A-	Z5.6 Paying Taxes	0.818	35	A+
Z1.4 Enterprise Operation	0.425	109	A-	Z6 Living Environment	0.863	26	A++
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.833	45	A+
Z1.6 Enterprise Performance	0.367	109	A-	Z6.2 Environmental Quality	0.902	91	A-
Z2 Industry Structure	0.384	127	A--	Z6.3 Shopping Environment	0.735	82	A
Z2.1 Manufacturing Development	0.499	130	A--	Z6.4 Dining & Restaurant	0.843	58	A+
Z2.2 Service Industry Development	0.383	122	A--	Z6.5 Housing	0.650	108	A-
Z2.3 Financial Sector Development	0.183	129	A--	Z6.6 Culture and Entertainment	0.429	82	A
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.931	12	A++
Z3 Human Resource	0.676	131	A--	Z7 Global Connectivity	0.550	39	A+
Z3.1 Health	0.924	68	A	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.642	96	A-	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.377	124	A--	Z7.3 Water Transportation	0.646	7	A++
				Z7.4 Air Transportation	0.063	101	A-
				Z7.5 Information Connectivity	0.195	148	A--
				Z7.6 Residents Connectivity	0.084	92	A-
				Z7.7 Enterprises Connectivity	0.232	134	A--

KAWASAKI CITY COMPETITIVENESS

Table A2.119 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	132.70
Area (Sq Km)	144.35
GDP per Capita (\$)	32307
GDP Growth Rate (%)	0.97



Table A2.120 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.414	90	A	Z3.4 Status of Talent	0.412	80	A
Nominal/Real Exchange Rate Ratio	0.017	448	C--	Z3.5 Education Development	0.360	136	A--
GDP	0.073	55	A+	Z3.6 Cost of Labor Force	0.465	133	A--
GDP per Capita	0.514	143	A--	Z4 Hard Environment	0.791	15	A++
GDP per Square Kilometer	0.461	10	A++	Z4.1 Basic Elements	0.751	95	A-
Real Economic Growth Rate (5 Years)	0.142	449	C--	Z4.2 Financial Market	0.704	8	A++
Employment Rate	0.954	102	A-	Z4.3 The Ability for Innovation	0.582	49	A+
Labor Productivity	0.361	162	B++	Z4.4 Market Scale	0.663	8	A++
Number of International Patents	0.451	16	A++	Z5 Soft Environment	0.768	69	A
Multinational Corporation Score	0.008	406	C-	Z5.1 Market System	0.589	85	A
Subentry Competitiveness				Z5.2 Market Regulation	0.736	74	A
Z1 Enterprise Quality	0.868	30	A++	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.518	105	A-
Z1.2 Corporate System	0.850	41	A+	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.785	79	A
Z1.4 Enterprise Operation	0.757	25	A++	Z6 Living Environment	0.847	41	A+
Z1.5 Brand	0.600	70	A	Z6.1 Natural Environment	0.751	66	A
Z1.6 Enterprise Performance	0.833	13	A++	Z6.2 Environmental Quality	0.918	82	A
Z2 Industry Structure	0.409	119	A-	Z6.3 Shopping Environment	0.691	115	A-
Z2.1 Manufacturing Development	0.556	112	A-	Z6.4 Dining & Restaurant	0.853	49	A+
Z2.2 Service Industry Development	0.400	118	A-	Z6.5 Housing	0.668	90	A
Z2.3 Financial Sector Development	0.143	147	A--	Z6.6 Culture and Entertainment	0.488	40	A+
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.853	38	A+
Z3 Human Resource	0.735	85	A	Z7 Global Connectivity	0.495	60	A+
Z3.1 Health	0.997	3	A++	Z7.1 Location Convenience	1.000	1	A++
Z3.2 Literacy Quality	0.803	26	A++	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.480	56	A+	Z7.3 Water Transportation	0.284	61	A
				Z7.4 Air Transportation	0.000	141	A--
				Z7.5 Information Connectivity	0.408	68	A
				Z7.6 Residents Connectivity	0.058	108	A-
				Z7.7 Enterprises Connectivity	0.224	146	A--

KOBE CITY COMPETITIVENESS

Table A2.121 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	152.54
Area (Sq Km)	552.19
GDP per Capita (\$)	33060
GDP Growth Rate (%)	0.50



Table A2.122 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.352	137	A--	Z3.4 Status of Talent	0.426	69	A
Nominal/Real Exchange Rate Ratio	0.017	448	C--	Z3.5 Education Development	0.385	114	A-
GDP	0.086	50	A+	Z3.6 Cost of Labor Force	0.480	126	A--
GDP per Capita	0.526	139	A--	Z4 Hard Environment	0.738	37	A+
GDP per Square Kilometer	0.142	109	A-	Z4.1 Basic Elements	0.811	62	A
Real Economic Growth Rate (5 Years)	0.126	486	D+	Z4.2 Financial Market	0.704	8	A++
Employment Rate	0.934	187	B+	Z4.3 The Ability for Innovation	0.514	72	A
Labor Productivity	0.375	154	B++	Z4.4 Market Scale	0.489	37	A+
Number of International Patents	0.335	43	A+	Z5 Soft Environment	0.733	82	A
Multinational Corporation Score	0.027	325	C++	Z5.1 Market System	0.589	85	A
Subentry Competitiveness				Z5.2 Market Regulation	0.736	74	A
Z1 Enterprise Quality	0.799	49	A+	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.850	23	A++	Z5.4 Public Service	0.526	98	A-
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.785	79	A
Z1.4 Enterprise Operation	0.578	73	A	Z6 Living Environment	0.811	85	A
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.825	47	A+
Z1.6 Enterprise Performance	0.633	48	A+	Z6.2 Environmental Quality	0.904	90	A
Z2 Industry Structure	0.487	90	A	Z6.3 Shopping Environment	0.724	91	A-
Z2.1 Manufacturing Development	0.728	41	A+	Z6.4 Dining & Restaurant	0.631	142	A--
Z2.2 Service Industry Development	0.449	102	A-	Z6.5 Housing	0.705	58	A+
Z2.3 Financial Sector Development	0.167	134	A--	Z6.6 Culture and Entertainment	0.333	135	A--
Z2.4 High-Tech Industry Development	0.586	40	A+	Z6.7 Social Security	0.883	24	A++
Z3 Human Resource	0.745	73	A	Z7 Global Connectivity	0.487	63	A
Z3.1 Health	0.986	4	A++	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.803	26	A++	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.488	51	A+	Z7.3 Water Transportation	0.446	21	A++
				Z7.4 Air Transportation	0.019	130	A--
				Z7.5 Information Connectivity	0.381	86	A
				Z7.6 Residents Connectivity	0.100	85	A
				Z7.7 Enterprises Connectivity	0.230	137	A--

KUALA LUMPUR CITY COMPETITIVENESS

Table A2.123 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	1523.94
Area (Sq Km)	244.00
GDP per Capita (\$)	7250
GDP Growth Rate (%)	3.87



Table A2.124 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.276	209	B+	Z3.4 Status of Talent	0.307	109	A-
Nominal/Real Exchange Rate Ratio	0.153	183	B+	Z3.5 Education Development	0.383	119	A-
GDP	0.019	241	B-	Z3.6 Cost of Labor Force	0.869	15	A++
GDP per Capita	0.113	262	B-	Z4 Hard Environment	0.661	74	A
GDP per Square Kilometer	0.070	191	B+	Z4.1 Basic Elements	1.000	1	A++
Real Economic Growth Rate (5 Years)	0.241	282	B--	Z4.2 Financial Market	0.688	15	A++
Employment Rate	0.965	57	A+	Z4.3 The Ability for Innovation	0.407	110	A-
Labor Productivity	0.107	257	B-	Z4.4 Market Scale	0.161	141	A--
Number of International Patents	0.019	224	B	Z5 Soft Environment	0.656	104	A-
Multinational Corporation Score	0.397	28	A++	Z5.1 Market System	0.478	118	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.711	87	A
Z1 Enterprise Quality	0.591	115	A-	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.500	126	A--	Z5.4 Public Service	0.486	113	A-
Z1.2 Corporate System	0.600	110	A-	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.600	124	A--	Z5.6 Paying Taxes	0.737	97	A-
Z1.4 Enterprise Operation	0.347	124	A--	Z6 Living Environment	0.830	59	A+
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.748	70	A
Z1.6 Enterprise Performance	0.500	81	A	Z6.2 Environmental Quality	0.855	99	A-
Z2 Industry Structure	0.449	110	A-	Z6.3 Shopping Environment	0.807	37	A+
Z2.1 Manufacturing Development	0.338	149	A--	Z6.4 Dining & Restaurant	0.814	80	A
Z2.2 Service Industry Development	0.533	74	A	Z6.5 Housing	0.753	29	A++
Z2.3 Financial Sector Development	0.450	35	A+	Z6.6 Culture and Entertainment	0.321	139	A--
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.819	71	A
Z3 Human Resource	0.661	138	A--	Z7 Global Connectivity	0.486	64	A
Z3.1 Health	0.720	136	A--	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.524	141	A--	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.360	134	A--	Z7.3 Water Transportation	0.446	21	A++
				Z7.4 Air Transportation	0.162	57	A+
				Z7.5 Information Connectivity	0.351	98	A-
				Z7.6 Residents Connectivity	0.269	40	A+
				Z7.7 Enterprises Connectivity	0.336	59	A+

KYOTO CITY COMPETITIVENESS

Table A2.125 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	147.48
Area (Sq Km)	827.90
GDP per Capita (\$)	36648
GDP Growth Rate (%)	1.32



Table A2.126 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.399	101	A-	Z3.4 Status of Talent	0.426	69	A
Nominal/Real Exchange Rate Ratio	0.017	448	C--	Z3.5 Education Development	0.497	45	A+
GDP	0.092	43	A+	Z3.6 Cost of Labor Force	0.496	124	A--
GDP per Capita	0.583	110	A-	Z4 Hard Environment	0.779	20	A++
GDP per Square Kilometer	0.101	152	B++	Z4.1 Basic Elements	0.824	53	A+
Real Economic Growth Rate (5 Years)	0.154	432	C--	Z4.2 Financial Market	0.704	8	A++
Employment Rate	0.940	158	B++	Z4.3 The Ability for Innovation	0.625	31	A+
Labor Productivity	0.415	128	A--	Z4.4 Market Scale	0.505	31	A+
Number of International Patents	0.434	20	A++	Z5 Soft Environment	0.775	64	A
Multinational Corporation Score	0.054	237	B	Z5.1 Market System	0.589	85	A
Subentry Competitiveness				Z5.2 Market Regulation	0.736	74	A
Z1 Enterprise Quality	0.895	16	A++	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.900	14	A++	Z5.4 Public Service	0.559	76	A
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.867	61	A	Z5.6 Paying Taxes	0.785	79	A
Z1.4 Enterprise Operation	0.689	41	A+	Z6 Living Environment	0.855	31	A+
Z1.5 Brand	1.000	1	A++	Z6.1 Natural Environment	0.845	32	A+
Z1.6 Enterprise Performance	0.767	23	A++	Z6.2 Environmental Quality	0.936	62	A
Z2 Industry Structure	0.540	57	A+	Z6.3 Shopping Environment	0.800	45	A+
Z2.1 Manufacturing Development	0.747	34	A+	Z6.4 Dining & Restaurant	0.707	124	A--
Z2.2 Service Industry Development	0.530	77	A	Z6.5 Housing	0.778	22	A++
Z2.3 Financial Sector Development	0.232	101	A-	Z6.6 Culture and Entertainment	0.345	130	A--
Z2.4 High-Tech Industry Development	0.632	24	A++	Z6.7 Social Security	0.861	33	A+
Z3 Human Resource	0.771	48	A+	Z7 Global Connectivity	0.360	124	A--
Z3.1 Health	0.983	7	A++	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.803	26	A++	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.486	54	A+	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.000	141	A--
				Z7.5 Information Connectivity	0.392	75	A
				Z7.6 Residents Connectivity	0.113	82	A
				Z7.7 Enterprises Connectivity	0.234	127	A--

LAS VEGAS CITY

Table A2.127 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	54.50
Area (Sq Km)	215.70
GDP per Capita (\$)	47441
GDP Growth Rate (%)	6.23



Table A2.128 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.492	45	A+	Z3.4 Status of Talent	0.203	119	A-
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.379	122	A--
GDP	0.044	115	A-	Z3.6 Cost of Labor Force	0.563	105	A-
GDP per Capita	0.756	32	A+	Z4 Hard Environment	0.701	52	A+
GDP per Square Kilometer	0.186	72	A	Z4.1 Basic Elements	0.773	83	A
Real Economic Growth Rate (5 Years)	0.322	186	B+	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.932	193	B+	Z4.3 The Ability for Innovation	0.494	82	A
Labor Productivity	0.624	34	A+	Z4.4 Market Scale	0.457	53	A+
Number of International Patents	0.134	114	A-	Z5 Soft Environment	0.900	14	A++
Multinational Corporation Score	0.083	175	B++	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.784	57	A+	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.743	33	A+
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.275	141	A--	Z6 Living Environment	0.886	16	A++
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.925	6	A++
Z1.6 Enterprise Performance	0.500	81	A	Z6.2 Environmental Quality	0.952	42	A+
Z2 Industry Structure	0.466	103	A-	Z6.3 Shopping Environment	0.796	46	A+
Z2.1 Manufacturing Development	0.663	73	A	Z6.4 Dining & Restaurant	0.889	34	A+
Z2.2 Service Industry Development	0.406	116	A-	Z6.5 Housing	0.736	36	A+
Z2.3 Financial Sector Development	0.255	94	A-	Z6.6 Culture and Entertainment	0.440	73	A
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.728	96	A-
Z3 Human Resource	0.646	144	A--	Z7 Global Connectivity	0.486	64	A
Z3.1 Health	0.905	87	A	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.653	88	A	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.389	118	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.302	21	A++
				Z7.5 Information Connectivity	0.432	56	A+
				Z7.6 Residents Connectivity	0.391	19	A++
				Z7.7 Enterprises Connectivity	0.540	9	A++

LISBON CITY COMPETITIVENESS

Table A2.129 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	53.03
Area (Sq Km)	82.00
GDP per Capita (\$)	26004
GDP Growth Rate (%)	0.57



Table A2.130 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.336	151	B++	Z3.4 Status of Talent	0.455	44	A+
Nominal/Real Exchange Rate Ratio	0.052	309	C++	Z3.5 Education Development	0.479	51	A+
GDP	0.023	211	B	Z3.6 Cost of Labor Force	0.667	65	A
GDP per Capita	0.413	181	B+	Z4 Hard Environment	0.619	94	A-
GDP per Square Kilometer	0.261	40	A+	Z4.1 Basic Elements	0.667	126	A--
Real Economic Growth Rate (5 Years)	0.129	478	D++	Z4.2 Financial Market	0.462	105	A-
Employment Rate	0.856	399	C-	Z4.3 The Ability for Innovation	0.382	116	A-
Labor Productivity	0.349	169	B++	Z4.4 Market Scale	0.601	17	A++
Number of International Patents	0.010	266	B-	Z5 Soft Environment	0.728	83	A
Multinational Corporation Score	0.304	45	A+	Z5.1 Market System	0.461	129	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.667	91	A-
Z1 Enterprise Quality	0.649	96	A-	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.552	79	A
Z1.2 Corporate System	0.550	121	A--	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.700	98	A-	Z5.6 Paying Taxes	0.832	27	A++
Z1.4 Enterprise Operation	0.617	66	A	Z6 Living Environment	0.966	3	A++
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.878	19	A++
Z1.6 Enterprise Performance	0.500	81	A	Z6.2 Environmental Quality	0.982	10	A++
Z2 Industry Structure	0.529	63	A	Z6.3 Shopping Environment	0.867	21	A++
Z2.1 Manufacturing Development	0.692	55	A+	Z6.4 Dining & Restaurant	0.889	34	A+
Z2.2 Service Industry Development	0.617	38	A+	Z6.5 Housing	0.759	27	A++
Z2.3 Financial Sector Development	0.263	88	A	Z6.6 Culture and Entertainment	0.619	13	A++
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.965	3	A++
Z3 Human Resource	0.737	82	A	Z7 Global Connectivity	0.567	34	A+
Z3.1 Health	0.926	66	A	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.615	103	A-	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.389	118	A-	Z7.3 Water Transportation	0.350	40	A+
				Z7.4 Air Transportation	0.095	84	A
				Z7.5 Information Connectivity	0.363	92	A-
				Z7.6 Residents Connectivity	0.463	15	A++
				Z7.7 Enterprises Connectivity	0.335	60	A+

LIVERPOOL CITY COMPETITIVENESS

Table A2.131 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	43.71
Area (Sq Km)	313.00
GDP per Capita (\$)	34178
GDP Growth Rate (%)	2.59



Table A2.132 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.299	188	B+	Z3.4 Status of Talent	0.660	12	A++
Nominal/Real Exchange Rate Ratio	0.016	470	D++	Z3.5 Education Development	0.536	31	A+
GDP	0.025	196	B+	Z3.6 Cost of Labor Force	0.663	67	A
GDP per Capita	0.544	131	A--	Z4 Hard Environment	0.635	88	A
GDP per Square Kilometer	0.074	180	B++	Z4.1 Basic Elements	0.637	131	A--
Real Economic Growth Rate (5 Years)	0.198	356	C+	Z4.2 Financial Market	0.710	5	A++
Employment Rate	0.891	335	C+	Z4.3 The Ability for Innovation	0.504	77	A
Labor Productivity	0.408	135	A--	Z4.4 Market Scale	0.314	106	A-
Number of International Patents	0.058	167	B++	Z5 Soft Environment	0.741	80	A
Multinational Corporation Score	0.054	237	B	Z5.1 Market System	0.563	98	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.766	67	A
Z1 Enterprise Quality	0.690	87	A	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.650	85	A	Z5.4 Public Service	0.571	71	A
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.700	98	A-	Z5.6 Paying Taxes	0.883	5	A++
Z1.4 Enterprise Operation	0.479	96	A-	Z6 Living Environment	0.785	114	A-
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.661	99	A-
Z1.6 Enterprise Performance	0.567	62	A	Z6.2 Environmental Quality	0.935	65	A
Z2 Industry Structure	0.437	115	A-	Z6.3 Shopping Environment	0.698	109	A-
Z2.1 Manufacturing Development	0.669	71	A	Z6.4 Dining & Restaurant	0.702	126	A--
Z2.2 Service Industry Development	0.353	125	A--	Z6.5 Housing	0.746	33	A+
Z2.3 Financial Sector Development	0.186	126	A--	Z6.6 Culture and Entertainment	0.429	82	A
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.667	123	A--
Z3 Human Resource	0.825	14	A++	Z7 Global Connectivity	0.625	28	A++
Z3.1 Health	0.894	98	A-	Z7.1 Location Convenience	1.000	1	A++
Z3.2 Literacy Quality	0.760	43	A+	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.437	83	A	Z7.3 Water Transportation	0.415	26	A++
				Z7.4 Air Transportation	0.051	108	A-
				Z7.5 Information Connectivity	0.499	35	A+
				Z7.6 Residents Connectivity	0.149	75	A
				Z7.7 Enterprises Connectivity	0.267	103	A-

LONDON CITY COMPETITIVENESS

Table A2.133 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	770.00
Area (Sq Km)	1605.00
GDP per Capita (\$)	57949
GDP Growth Rate (%)	3.02



Table A2.134 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.944	2	A++	Z3.4 Status of Talent	0.676	10	A++
Nominal/Real Exchange Rate Ratio	0.016	470	D++	Z3.5 Education Development	0.788	4	A++
GDP	0.763	4	A++	Z3.6 Cost of Labor Force	0.093	150	A--
GDP per Capita	0.924	6	A++	Z4 Hard Environment	0.862	5	A++
GDP per Square Kilometer	0.432	12	A++	Z4.1 Basic Elements	0.485	150	A--
Real Economic Growth Rate (5 Years)	0.212	332	C+	Z4.2 Financial Market	0.778	3	A++
Employment Rate	0.917	252	B-	Z4.3 The Ability for Innovation	0.918	3	A++
Labor Productivity	1.000	1	A++	Z4.4 Market Scale	0.760	3	A++
Number of International Patents	0.649	4	A++	Z5 Soft Environment	0.874	22	A++
Multinational Corporation Score	0.959	2	A++	Z5.1 Market System	0.563	98	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.766	67	A
Z1 Enterprise Quality	0.794	53	A+	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.601	55	A+
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.867	61	A	Z5.6 Paying Taxes	0.883	5	A++
Z1.4 Enterprise Operation	0.765	22	A++	Z6 Living Environment	0.858	30	A++
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.740	77	A
Z1.6 Enterprise Performance	0.333	116	A-	Z6.2 Environmental Quality	0.910	85	A
Z2 Industry Structure	0.958	3	A++	Z6.3 Shopping Environment	0.829	27	A++
Z2.1 Manufacturing Development	0.980	2	A++	Z6.4 Dining & Restaurant	0.836	64	A
Z2.2 Service Industry Development	0.981	2	A++	Z6.5 Housing	0.863	14	A++
Z2.3 Financial Sector Development	1.000	1	A++	Z6.6 Culture and Entertainment	0.595	15	A++
Z2.4 High-Tech Industry Development	0.839	3	A++	Z6.7 Social Security	0.519	143	A--
Z3 Human Resource	0.810	18	A++	Z7 Global Connectivity	0.973	2	A++
Z3.1 Health	0.932	56	A+	Z7.1 Location Convenience	1.000	1	A++
Z3.2 Literacy Quality	0.891	6	A++	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.497	49	A+	Z7.3 Water Transportation	0.460	18	A++
				Z7.4 Air Transportation	0.455	8	A++
				Z7.5 Information Connectivity	1.000	1	A++
				Z7.6 Residents Connectivity	0.345	26	A++
				Z7.7 Enterprises Connectivity	1.000	1	A++

LOS ANGELES CITY COMPETITIVENESS

Table A2.135 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	384.71
Area (Sq Km)	1206.67
GDP per Capita (\$)	46810
GDP Growth Rate (%)	2.81



Table A2.136 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.669	6	A++	Z3.4 Status of Talent	0.336	107	A-
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.622	14	A++
GDP	0.308	6	A++	Z3.6 Cost of Labor Force	0.472	130	A--
GDP per Capita	0.746	35	A+	Z4 Hard Environment	0.809	12	A++
GDP per Square Kilometer	0.232	53	A+	Z4.1 Basic Elements	0.745	97	A-
Real Economic Growth Rate (5 Years)	0.205	345	C+	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.898	318	C++	Z4.3 The Ability for Innovation	0.680	18	A++
Labor Productivity	0.649	25	A++	Z4.4 Market Scale	0.667	6	A++
Number of International Patents	0.340	38	A+	Z5 Soft Environment	0.922	6	A++
Multinational Corporation Score	0.497	15	A++	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.893	19	A++	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	0.950	9	A++	Z5.4 Public Service	0.761	32	A+
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	1.000	1	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.659	52	A+	Z6 Living Environment	0.841	49	A+
Z1.5 Brand	0.600	70	A	Z6.1 Natural Environment	0.858	26	A++
Z1.6 Enterprise Performance	0.800	20	A++	Z6.2 Environmental Quality	0.969	28	A++
Z2 Industry Structure	0.597	36	A+	Z6.3 Shopping Environment	0.807	37	A+
Z2.1 Manufacturing Development	0.654	80	A	Z6.4 Dining & Restaurant	0.881	39	A+
Z2.2 Service Industry Development	0.711	16	A++	Z6.5 Housing	0.566	134	A--
Z2.3 Financial Sector Development	0.411	44	A+	Z6.6 Culture and Entertainment	0.333	135	A--
Z2.4 High-Tech Industry Development	0.591	34	A+	Z6.7 Social Security	0.772	87	A
Z3 Human Resource	0.743	75	A	Z7 Global Connectivity	0.838	3	A++
Z3.1 Health	0.929	60	A+	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.705	65	A	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.493	50	A+	Z7.3 Water Transportation	0.544	11	A++
				Z7.4 Air Transportation	0.770	3	A++
				Z7.5 Information Connectivity	0.616	14	A++
				Z7.6 Residents Connectivity	0.360	24	A++
				Z7.7 Enterprises Connectivity	0.631	6	A++

LYON CITY COMPETITIVENESS

Table A2.137 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	46.64
Area (Sq Km)	47.87
GDP per Capita (\$)	34710
GDP Growth Rate (%)	1.38

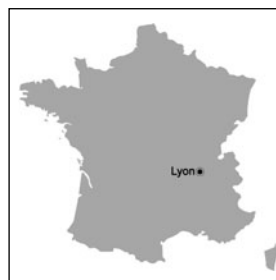


Table A2.138 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.485	49	A+	Z3.4 Status of Talent	0.536	28	A++
Nominal/Real Exchange Rate Ratio	0.022	434	C--	Z3.5 Education Development	0.677	8	A++
GDP	0.027	184	B+	Z3.6 Cost of Labor Force	0.591	98	A-
GDP per Capita	0.552	127	A--	Z4 Hard Environment	0.606	98	A-
GDP per Square Kilometer	0.525	5	A++	Z4.1 Basic Elements	0.618	138	A--
Real Economic Growth Rate (5 Years)	0.156	419	C-	Z4.2 Financial Market	0.469	104	A-
Employment Rate	0.892	331	C+	Z4.3 The Ability for Innovation	0.604	38	A+
Labor Productivity	0.534	63	A	Z4.4 Market Scale	0.375	89	A
Number of International Patents	0.320	52	A+	Z5 Soft Environment	0.764	70	A
Multinational Corporation Score	0.101	152	B++	Z5.1 Market System	0.532	110	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.923	4	A++
Z1 Enterprise Quality	0.766	64	A	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.585	58	A+
Z1.2 Corporate System	0.800	57	A+	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.867	61	A	Z5.6 Paying Taxes	0.772	91	A-
Z1.4 Enterprise Operation	0.446	104	A-	Z6 Living Environment	0.860	28	A++
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.617	115	A-
Z1.6 Enterprise Performance	0.500	81	A	Z6.2 Environmental Quality	0.984	7	A++
Z2 Industry Structure	0.537	60	A+	Z6.3 Shopping Environment	0.826	30	A++
Z2.1 Manufacturing Development	0.762	25	A++	Z6.4 Dining & Restaurant	0.726	116	A-
Z2.2 Service Industry Development	0.539	69	A	Z6.5 Housing	0.655	102	A-
Z2.3 Financial Sector Development	0.242	97	A-	Z6.6 Culture and Entertainment	0.726	7	A++
Z2.4 High-Tech Industry Development	0.586	40	A+	Z6.7 Social Security	0.772	87	A
Z3 Human Resource	0.790	32	A+	Z7 Global Connectivity	0.450	90	A
Z3.1 Health	0.966	20	A++	Z7.1 Location Convenience	0.532	74	A
Z3.2 Literacy Quality	0.670	78	A	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.340	144	A--	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.093	85	A
				Z7.5 Information Connectivity	0.489	40	A+
				Z7.6 Residents Connectivity	0.201	60	A+
				Z7.7 Enterprises Connectivity	0.318	71	A

MACAO CITY COMPETITIVENESS

Table A2.139 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	48.81
Area (Sq Km)	26.80
GDP per Capita (\$)	26500
GDP Growth Rate (%)	10.88



Table A2.140 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.436	78	A	Z3.4 Status of Talent	0.081	136	A--
Nominal/Real Exchange Rate Ratio	0.055	306	C++	Z3.5 Education Development	0.356	141	A--
GDP	0.022	220	B	Z3.6 Cost of Labor Force	0.534	115	A-
GDP per Capita	0.421	179	B++	Z4 Hard Environment	0.538	125	A--
GDP per Square Kilometer	0.750	4	A++	Z4.1 Basic Elements	0.805	66	A
Real Economic Growth Rate (5 Years)	0.481	87	A	Z4.2 Financial Market	0.594	59	A+
Employment Rate	0.955	97	A-	Z4.3 The Ability for Innovation	0.282	150	A--
Labor Productivity	0.237	200	B+	Z4.4 Market Scale	0.155	144	A--
Number of International Patents	0.000	428	C--	Z5 Soft Environment	0.753	72	A
Multinational Corporation Score	0.072	194	B+	Z5.1 Market System	0.906	3	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.614	103	A-
Z1 Enterprise Quality	0.599	110	A-	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.534	94	A-
Z1.2 Corporate System	0.600	110	A-	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.800	79	A	Z5.6 Paying Taxes	0.893	4	A++
Z1.4 Enterprise Operation	0.160	150	A--	Z6 Living Environment	0.840	50	A+
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.829	46	A+
Z1.6 Enterprise Performance	0.533	70	A	Z6.2 Environmental Quality	0.906	88	A
Z2 Industry Structure	0.414	118	A-	Z6.3 Shopping Environment	0.774	54	A+
Z2.1 Manufacturing Development	0.649	83	A	Z6.4 Dining & Restaurant	0.774	98	A-
Z2.2 Service Industry Development	0.409	115	A-	Z6.5 Housing	0.560	135	A--
Z2.3 Financial Sector Development	0.191	121	A--	Z6.6 Culture and Entertainment	0.488	40	A+
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.848	42	A+
Z3 Human Resource	0.618	150	A--	Z7 Global Connectivity	0.323	136	A--
Z3.1 Health	0.959	25	A++	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.634	99	A-	Z7.2 Land Transportation	0.200	150	A--
Z3.3 Status of the Labor Market	0.393	117	A-	Z7.3 Water Transportation	0.145	72	A
				Z7.4 Air Transportation	0.036	119	A-
				Z7.5 Information Connectivity	0.403	70	A
				Z7.6 Residents Connectivity	0.217	54	A+
				Z7.7 Enterprises Connectivity	0.233	129	A--

MADRID CITY COMPETITIVENESS

Table A2.141 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	315.54
Area (Sq Km)	607.00
GDP per Capita (\$)	31432
GDP Growth Rate (%)	2.87



Table A2.142 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.572	17	A++	Z3.4 Status of Talent	0.647	14	A++
Nominal/Real Exchange Rate Ratio	0.034	340	C+	Z3.5 Education Development	0.516	37	A+
GDP	0.169	17	A++	Z3.6 Cost of Labor Force	0.639	77	A
GDP per Capita	0.500	151	B++	Z4 Hard Environment	0.699	53	A+
GDP per Square Kilometer	0.254	44	A+	Z4.1 Basic Elements	0.590	142	A--
Real Economic Growth Rate (5 Years)	0.207	342	C+	Z4.2 Financial Market	0.596	58	A+
Employment Rate	0.925	223	B	Z4.3 The Ability for Innovation	0.775	10	A++
Labor Productivity	0.379	152	B++	Z4.4 Market Scale	0.423	77	A
Number of International Patents	0.258	75	A	Z5 Soft Environment	0.754	71	A
Multinational Corporation Score	0.516	12	A++	Z5.1 Market System	0.504	113	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.597	104	A-
Z1 Enterprise Quality	0.843	38	A+	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.454	120	A-
Z1.2 Corporate System	0.950	8	A++	Z5.5 Strategy and Experience	0.900	26	A++
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.797	76	A
Z1.4 Enterprise Operation	0.650	58	A+	Z6 Living Environment	0.885	17	A++
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.802	51	A+
Z1.6 Enterprise Performance	0.900	7	A++	Z6.2 Environmental Quality	0.923	76	A
Z2 Industry Structure	0.684	12	A++	Z6.3 Shopping Environment	0.840	25	A++
Z2.1 Manufacturing Development	0.746	35	A+	Z6.4 Dining & Restaurant	0.822	76	A
Z2.2 Service Industry Development	0.742	11	A++	Z6.5 Housing	0.798	21	A++
Z2.3 Financial Sector Development	0.637	11	A++	Z6.6 Culture and Entertainment	0.440	73	A
Z2.4 High-Tech Industry Development	0.586	40	A+	Z6.7 Social Security	0.832	61	A
Z3 Human Resource	0.832	13	A++	Z7 Global Connectivity	0.629	27	A++
Z3.1 Health	0.967	19	A++	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.687	69	A	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.526	38	A+	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.324	17	A++
				Z7.5 Information Connectivity	0.723	5	A++
				Z7.6 Residents Connectivity	0.244	44	A+
				Z7.7 Enterprises Connectivity	0.501	16	A++

MANILA CITY COMPETITIVENESS

Table A2.143 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	156.89
Area (Sq Km)	38.55
GDP per Capita (\$)	2355
GDP Growth Rate (%)	3.99



Table A2.144 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.190	323	C++	Z3.4 Status of Talent	0.247	118	A-
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.395	111	A-
GDP	0.006	366	C	Z3.6 Cost of Labor Force	1.000	1	A++
GDP per Capita	0.034	390	C	Z4 Hard Environment	0.524	137	A--
GDP per Square Kilometer	0.149	102	A-	Z4.1 Basic Elements	0.892	15	A++
Real Economic Growth Rate (5 Years)	0.245	274	B--	Z4.2 Financial Market	0.426	139	A--
Employment Rate	0.824	428	C--	Z4.3 The Ability for Innovation	0.360	122	A--
Labor Productivity	0.020	430	C--	Z4.4 Market Scale	0.110	148	A--
Number of International Patents	0.013	248	B-	Z5 Soft Environment	0.584	128	A--
Multinational Corporation Score	0.112	135	A--	Z5.1 Market System	0.377	139	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.386	149	A--
Z1 Enterprise Quality	0.569	121	A--	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.450	135	A--	Z5.4 Public Service	0.477	115	A-
Z1.2 Corporate System	0.550	121	A--	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.667	106	A-	Z5.6 Paying Taxes	0.778	90	A
Z1.4 Enterprise Operation	0.359	122	A--	Z6 Living Environment	0.724	137	A--
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.615	117	A-
Z1.6 Enterprise Performance	0.600	55	A+	Z6.2 Environmental Quality	0.777	106	A-
Z2 Industry Structure	0.433	117	A-	Z6.3 Shopping Environment	0.670	123	A--
Z2.1 Manufacturing Development	0.514	126	A--	Z6.4 Dining & Restaurant	0.761	102	A-
Z2.2 Service Industry Development	0.547	67	A	Z6.5 Housing	0.436	144	A--
Z2.3 Financial Sector Development	0.198	118	A-	Z6.6 Culture and Entertainment	0.393	112	A-
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.812	73	A
Z3 Human Resource	0.726	90	A	Z7 Global Connectivity	0.452	86	A
Z3.1 Health	0.688	137	A--	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.530	139	A--	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.615	21	A++	Z7.3 Water Transportation	0.348	41	A+
				Z7.4 Air Transportation	0.114	75	A
				Z7.5 Information Connectivity	0.384	80	A
				Z7.6 Residents Connectivity	0.132	77	A
				Z7.7 Enterprises Connectivity	0.251	113	A-

MELBOURNE CITY COMPETITIVENESS

Table A2.145 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	363.55
Area (Sq Km)	2072.00
GDP per Capita (\$)	37068
GDP Growth Rate (%)	3.42



Table A2.146 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.539	22	A++	Z3.4 Status of Talent	0.389	91	A-
Nominal/Real Exchange Rate Ratio	0.036	333	C+	Z3.5 Education Development	0.509	40	A+
GDP	0.230	10	A++	Z3.6 Cost of Labor Force	0.608	96	A-
GDP per Capita	0.590	109	A-	Z4 Hard Environment	0.683	60	A+
GDP per Square Kilometer	0.101	153	B++	Z4.1 Basic Elements	0.876	20	A++
Real Economic Growth Rate (5 Years)	0.226	314	C++	Z4.2 Financial Market	0.489	96	A-
Employment Rate	0.940	159	B++	Z4.3 The Ability for Innovation	0.586	47	A+
Labor Productivity	0.468	102	A-	Z4.4 Market Scale	0.377	88	A
Number of International Patents	0.294	67	A	Z5 Soft Environment	0.878	21	A++
Multinational Corporation Score	0.304	45	A+	Z5.1 Market System	0.639	50	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.812	57	A+
Z1 Enterprise Quality	0.845	35	A+	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.567	73	A
Z1.2 Corporate System	0.800	57	A+	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.818	35	A+
Z1.4 Enterprise Operation	0.646	60	A+	Z6 Living Environment	0.958	4	A++
Z1.5 Brand	1.000	1	A++	Z6.1 Natural Environment	0.897	10	A++
Z1.6 Enterprise Performance	0.567	62	A	Z6.2 Environmental Quality	0.872	95	A-
Z2 Industry Structure	0.637	23	A++	Z6.3 Shopping Environment	0.905	15	A++
Z2.1 Manufacturing Development	0.778	17	A++	Z6.4 Dining & Restaurant	0.919	17	A++
Z2.2 Service Industry Development	0.579	54	A+	Z6.5 Housing	0.953	2	A++
Z2.3 Financial Sector Development	0.511	23	A++	Z6.6 Culture and Entertainment	0.452	64	A
Z2.4 High-Tech Industry Development	0.659	13	A++	Z6.7 Social Security	0.910	15	A++
Z3 Human Resource	0.795	26	A++	Z7 Global Connectivity	0.599	31	A+
Z3.1 Health	0.954	27	A++	Z7.1 Location Convenience	0.532	74	A
Z3.2 Literacy Quality	0.830	18	A++	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.515	43	A+	Z7.3 Water Transportation	0.375	32	A+
				Z7.4 Air Transportation	0.136	62	A
				Z7.5 Information Connectivity	0.530	21	A++
				Z7.6 Residents Connectivity	0.238	46	A+
				Z7.7 Enterprises Connectivity	0.429	29	A++

MEMPHIS CITY COMPETITIVENESS

Table A2.147 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	66.99
Area (Sq Km)	684.00
GDP per Capita (\$)	40822
GDP Growth Rate (%)	1.89



Table A2.148 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.373	122	A--	Z3.4 Status of Talent	0.363	99	A-
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.474	61	A
GDP	0.046	103	A-	Z3.6 Cost of Labor Force	0.681	58	A+
GDP per Capita	0.650	81	A	Z4 Hard Environment	0.750	32	A+
GDP per Square Kilometer	0.062	206	B+	Z4.1 Basic Elements	0.936	4	A++
Real Economic Growth Rate (5 Years)	0.174	398	C-	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.865	388	C	Z4.3 The Ability for Innovation	0.512	74	A
Labor Productivity	0.583	48	A+	Z4.4 Market Scale	0.442	64	A
Number of International Patents	0.127	117	A-	Z5 Soft Environment	0.841	38	A+
Multinational Corporation Score	0.114	132	A--	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.858	33	A+	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.750	52	A+	Z5.4 Public Service	0.819	11	A++
Z1.2 Corporate System	1.000	1	A++	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	1.000	1	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.766	21	A++	Z6 Living Environment	0.832	57	A+
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.793	55	A+
Z1.6 Enterprise Performance	0.300	123	A--	Z6.2 Environmental Quality	0.946	51	A+
Z2 Industry Structure	0.475	98	A-	Z6.3 Shopping Environment	0.655	132	A--
Z2.1 Manufacturing Development	0.672	68	A	Z6.4 Dining & Restaurant	0.901	25	A++
Z2.2 Service Industry Development	0.428	108	A-	Z6.5 Housing	0.714	54	A+
Z2.3 Financial Sector Development	0.259	91	A-	Z6.6 Culture and Entertainment	0.512	32	A+
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.612	136	A--
Z3 Human Resource	0.717	99	A-	Z7 Global Connectivity	0.366	121	A--
Z3.1 Health	0.858	121	A--	Z7.1 Location Convenience	0.216	128	A--
Z3.2 Literacy Quality	0.676	73	A	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.382	120	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.194	48	A+
				Z7.5 Information Connectivity	0.244	138	A--
				Z7.6 Residents Connectivity	0.035	123	A--
				Z7.7 Enterprises Connectivity	0.291	86	A

MEXICO CITY COMPETITIVENESS

Table A2.149 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10 000)	1923.18
Area (Sq Km)	1599.71
GDP per Capita (\$)	11 452
GDP Growth Rate (%)	8.18



Table A2.150 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.448	74	A	Z3.4 Status of Talent	0.501	30	A++
Nominal/Real Exchange Rate Ratio	0.081	270	B-	Z3.5 Education Development	0.624	13	A++
GDP	0.376	5	A++	Z3.6 Cost of Labor Force	0.679	59	A+
GDP per Capita	0.180	226	B	Z4 Hard Environment	0.683	60	A+
GDP per Square Kilometer	0.214	60	A+	Z4.1 Basic Elements	0.805	66	A
Real Economic Growth Rate (5 Years)	0.389	141	A--	Z4.2 Financial Market	0.498	90	A
Employment Rate	0.946	144	A--	Z4.3 The Ability for Innovation	0.367	121	A--
Labor Productivity	0.250	198	B+	Z4.4 Market Scale	0.660	9	A++
Number of International Patents	0.004	320	C++	Z5 Soft Environment	0.670	98	A-
Multinational Corporation Score	0.389	29	A++	Z5.1 Market System	0.466	125	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.664	92	A-
Z1 Enterprise Quality	0.606	107	A-	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.550	110	A-	Z5.4 Public Service	0.581	62	A
Z1.2 Corporate System	0.550	121	A--	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.700	98	A-	Z5.6 Paying Taxes	0.679	106	A-
Z1.4 Enterprise Operation	0.366	117	A-	Z6 Living Environment	0.821	74	A
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.785	59	A+
Z1.6 Enterprise Performance	0.767	23	A++	Z6.2 Environmental Quality	0.715	119	A-
Z2 Industry Structure	0.591	38	A+	Z6.3 Shopping Environment	0.644	134	A--
Z2.1 Manufacturing Development	0.701	49	A+	Z6.4 Dining & Restaurant	0.850	51	A+
Z2.2 Service Industry Development	0.752	10	A++	Z6.5 Housing	0.604	128	A--
Z2.3 Financial Sector Development	0.293	74	A	Z6.6 Culture and Entertainment	0.512	32	A+
Z2.4 High-Tech Industry Development	0.597	33	A+	Z6.7 Social Security	0.955	5	A++
Z3 Human Resource	0.855	7	A++	Z7 Global Connectivity	0.404	110	A-
Z3.1 Health	0.805	128	A--	Z7.1 Location Convenience	0.216	128	A--
Z3.2 Literacy Quality	0.645	94	A-	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.840	5	A++	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.231	37	A+
				Z7.5 Information Connectivity	0.367	90	A
				Z7.6 Residents Connectivity	0.008	144	A--
				Z7.7 Enterprises Connectivity	0.360	48	A+

MIAMI CITY COMPETITIVENESS

Table A2.151 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	38.66
Area (Sq Km)	88.80
GDP per Capita (\$)	37857
GDP Growth Rate (%)	3.48



Table A2.152 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.517	32	A+	Z3.4 Status of Talent	0.443	53	A+
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.472	64	
GDP	0.025	200	B+	Z3.6 Cost of Labor Force	0.525	120	A-
GDP per Capita	0.603	102	A-	Z4 Hard Environment	0.727	41	A+
GDP per Square Kilometer	0.256	43	A+	Z4.1 Basic Elements	0.854	34	A+
Real Economic Growth Rate (5 Years)	0.228	312	C++	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.895	324	C++	Z4.3 The Ability for Innovation	0.518	69	A
Labor Productivity	0.595	41	A+	Z4.4 Market Scale	0.442	64	A
Number of International Patents	0.169	97	A-	Z5 Soft Environment	0.868	27	A++
Multinational Corporation Score	0.280	52	A+	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.706	83	A	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.967	2	A++
Z1.2 Corporate System	0.750	70	A	Z5.5 Strategy and Experience	0.800	39	A+
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.699	36	A+	Z6 Living Environment	0.843	46	A+
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.843	34	A+
Z1.6 Enterprise Performance	0.100	145	A--	Z6.2 Environmental Quality	0.988	6	A++
Z2 Industry Structure	0.563	45	A+	Z6.3 Shopping Environment	0.742	77	A
Z2.1 Manufacturing Development	0.646	84	A	Z6.4 Dining & Restaurant	0.836	64	A
Z2.2 Service Industry Development	0.638	33	A+	Z6.5 Housing	0.637	110	A-
Z2.3 Financial Sector Development	0.296	72	A	Z6.6 Culture and Entertainment	0.476	46	A+
Z2.4 High-Tech Industry Development	0.653	14	A++	Z6.7 Social Security	0.678	118	A-
Z3 Human Resource	0.688	122	A--	Z7 Global Connectivity	0.693	12	A++
Z3.1 Health	0.896	96	A-	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.630	100	A-	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.330	147	A--	Z7.3 Water Transportation	0.273	66	A
				Z7.4 Air Transportation	0.205	43	A+
				Z7.5 Information Connectivity	0.394	72	A
				Z7.6 Residents Connectivity	0.865	2	A++
				Z7.7 Enterprises Connectivity	0.454	24	A++

MILAN CITY COMPETITIVENESS

Table A2.153 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	129.94
Area (Sq Km)	188.34
GDP per Capita (\$)	39884
GDP Growth Rate (%)	0.75



Table A2.154 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.526	29	A++	Z3.4 Status of Talent	0.443	53	A+
Nominal/Real Exchange Rate Ratio	0.034	340	C+	Z3.5 Education Development	0.571	22	A++
GDP	0.088	47	A+	Z3.6 Cost of Labor Force	0.483	125	A--
GDP per Capita	0.635	91	A-	Z4 Hard Environment	0.621	92	A-
GDP per Square Kilometer	0.428	13	A++	Z4.1 Basic Elements	0.645	129	A--
Real Economic Growth Rate (5 Years)	0.135	462	D++	Z4.2 Financial Market	0.478	100	A-
Employment Rate	0.952	116	A-	Z4.3 The Ability for Innovation	0.491	83	A
Labor Productivity	0.440	112	A-	Z4.4 Market Scale	0.503	32	A+
Number of International Patents	0.122	121	A--	Z5 Soft Environment	0.703	93	A-
Multinational Corporation Score	0.544	11	A++	Z5.1 Market System	0.368	140	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.569	114	A-
Z1 Enterprise Quality	0.738	69	A	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.650	85	A	Z5.4 Public Service	0.516	106	A-
Z1.2 Corporate System	0.850	41	A+	Z5.5 Strategy and Experience	0.900	26	A++
Z1.3 Enterprise Management	0.800	79	A	Z5.6 Paying Taxes	0.719	98	A-
Z1.4 Enterprise Operation	0.860	8	A++	Z6 Living Environment	0.931	8	A++
Z1.5 Brand	0.600	70	A	Z6.1 Natural Environment	0.720	81	A
Z1.6 Enterprise Performance	0.300	123	A--	Z6.2 Environmental Quality	0.919	80	A
Z2 Industry Structure	0.645	20	A++	Z6.3 Shopping Environment	0.989	2	A++
Z2.1 Manufacturing Development	0.731	40	A+	Z6.4 Dining & Restaurant	0.945	9	A++
Z2.2 Service Industry Development	0.682	23	A++	Z6.5 Housing	0.605	126	A--
Z2.3 Financial Sector Development	0.618	13	A++	Z6.6 Culture and Entertainment	0.750	5	A++
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.813	72	A
Z3 Human Resource	0.804	22	A++	Z7 Global Connectivity	0.514	57	A+
Z3.1 Health	0.975	14	A++	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.890	7	A++	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.487	53	A+	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.256	31	A+
				Z7.5 Information Connectivity	0.527	23	A++
				Z7.6 Residents Connectivity	0.300	33	A+
				Z7.7 Enterprises Connectivity	0.483	18	A++

MILWAUKEE CITY COMPETITIVENESS

Table A2.155 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	57.63
Area (Sq Km)	248.10
GDP per Capita (\$)	42702
GDP Growth Rate (%)	1.00



Table A2.156 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.387	110	A-	Z3.4 Status of Talent	0.483	34	A+
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.491	49	A+
GDP	0.042	122	A--	Z3.6 Cost of Labor Force	0.672	63	A
GDP per Capita	0.680	68	A	Z4 Hard Environment	0.716	46	A+
GDP per Square Kilometer	0.154	98	A-	Z4.1 Basic Elements	0.834	48	A+
Real Economic Growth Rate (5 Years)	0.143	445	C--	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.842	411	C-	Z4.3 The Ability for Innovation	0.495	80	A
Labor Productivity	0.656	23	A++	Z4.4 Market Scale	0.446	59	A+
Number of International Patents	0.088	147	A--	Z5 Soft Environment	0.832	44	A+
Multinational Corporation Score	0.130	115	A-	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.813	43	A+	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.650	85	A	Z5.4 Public Service	0.865	6	A++
Z1.2 Corporate System	0.850	41	A+	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.600	68	A	Z6 Living Environment	0.764	127	A--
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.508	140	A--
Z1.6 Enterprise Performance	0.733	29	A++	Z6.2 Environmental Quality	0.942	54	A+
Z2 Industry Structure	0.507	77	A	Z6.3 Shopping Environment	0.655	132	A--
Z2.1 Manufacturing Development	0.704	47	A+	Z6.4 Dining & Restaurant	0.796	89	A
Z2.2 Service Industry Development	0.479	95	A-	Z6.5 Housing	0.654	105	A-
Z2.3 Financial Sector Development	0.302	69	A	Z6.6 Culture and Entertainment	0.452	64	A
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.702	104	A-
Z3 Human Resource	0.745	73	A	Z7 Global Connectivity	0.417	103	A-
Z3.1 Health	0.912	82	A	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.652	89	A	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.359	136	A--	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.107	77	A
				Z7.5 Information Connectivity	0.254	134	A--
				Z7.6 Residents Connectivity	0.063	104	A-
				Z7.7 Enterprises Connectivity	0.275	95	A-

MINNEAPOLIS CITY COMPETITIVENESS

Table A2.157 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	37.27
Area (Sq Km)	142.70
GDP per Capita (\$)	49662
GDP Growth Rate (%)	2.03



Table A2.158 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.514	34	A+	Z3.4 Status of Talent	0.443	53	A+
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.400	108	A-
GDP	0.031	164	B++	Z3.6 Cost of Labor Force	0.646	76	A
GDP per Capita	0.792	24	A++	Z4 Hard Environment	0.764	24	A++
GDP per Square Kilometer	0.201	66	A	Z4.1 Basic Elements	0.821	54	A+
Real Economic Growth Rate (5 Years)	0.179	393	C-	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.891	335	C+	Z4.3 The Ability for Innovation	0.561	53	A+
Labor Productivity	0.589	45	A+	Z4.4 Market Scale	0.556	24	A++
Number of International Patents	0.361	32	A+	Z5 Soft Environment	0.856	29	A++
Multinational Corporation Score	0.178	82	A	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.894	17	A++	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.900	14	A++	Z5.4 Public Service	1.000	1	A++
Z1.2 Corporate System	1.000	1	A++	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	1.000	1	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.514	84	A	Z6 Living Environment	0.760	130	A--
Z1.5 Brand	1.000	1	A++	Z6.1 Natural Environment	0.466	143	A--
Z1.6 Enterprise Performance	0.500	81	A	Z6.2 Environmental Quality	0.990	3	A++
Z2 Industry Structure	0.542	56	A+	Z6.3 Shopping Environment	0.644	134	A--
Z2.1 Manufacturing Development	0.754	29	A++	Z6.4 Dining & Restaurant	0.764	100	A-
Z2.2 Service Industry Development	0.592	49	A+	Z6.5 Housing	0.727	46	A+
Z2.3 Financial Sector Development	0.280	78	A	Z6.6 Culture and Entertainment	0.417	93	A-
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.682	117	A-
Z3 Human Resource	0.768	52	A+	Z7 Global Connectivity	0.448	92	A-
Z3.1 Health	0.939	49	A+	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.813	24	A++	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.438	82	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.309	19	A++
				Z7.5 Information Connectivity	0.227	143	A--
				Z7.6 Residents Connectivity	0.127	80	A
				Z7.7 Enterprises Connectivity	0.395	40	A+

MINSK CITY COMPETITIVENESS

Table A2.159 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	178.07
Area (Sq Km)	256.00
GDP per Capita (\$)	2537
GDP Growth Rate (%)	13.05

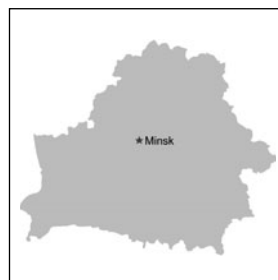


Table A2.160 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.223	270	B--	Z3.4 Status of Talent	0.474	37	A+
Nominal/Real Exchange Rate Ratio	0.168	176	B++	Z3.5 Education Development	0.367	132	A--
GDP	0.007	352	C+	Z3.6 Cost of Labor Force	0.738	46	A+
GDP per Capita	0.037	384	C	Z4 Hard Environment	0.389	150	A--
GDP per Square Kilometer	0.027	271	B--	Z4.1 Basic Elements	0.718	108	A-
Real Economic Growth Rate (5 Years)	0.555	58	A++	Z4.2 Financial Market	0.213	150	A--
Employment Rate	0.990	8	A++	Z4.3 The Ability for Innovation	0.302	148	A--
Labor Productivity	0.016	444	C--	Z4.4 Market Scale	0.092	150	A--
Number of International Patents	0.021	220	B	Z5 Soft Environment	0.432	150	A--
Multinational Corporation Score	0.097	159	B++	Z5.1 Market System	0.543	108	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.465	143	A--
Z1 Enterprise Quality	0.337	150	A--	Z5.3 Social Management	0.400	144	A--
Z1.1 Corporate Culture	0.400	144	A--	Z5.4 Public Service	0.391	145	A--
Z1.2 Corporate System	0.200	150	A--	Z5.5 Strategy and Experience	0.300	147	A--
Z1.3 Enterprise Management	0.467	147	A--	Z5.6 Paying Taxes	0.283	150	A--
Z1.4 Enterprise Operation	0.454	101	A-	Z6 Living Environment	0.735	136	A--
Z1.5 Brand	0.200	135	A--	Z6.1 Natural Environment	0.375	149	A--
Z1.6 Enterprise Performance	0.133	143	A--	Z6.2 Environmental Quality	0.826	102	A-
Z2 Industry Structure	0.369	129	A--	Z6.3 Shopping Environment	0.239	150	A--
Z2.1 Manufacturing Development	0.523	121	A--	Z6.4 Dining & Restaurant	0.849	52	A+
Z2.2 Service Industry Development	0.403	117	A-	Z6.5 Housing	0.686	78	A
Z2.3 Financial Sector Development	0.144	146	A--	Z6.6 Culture and Entertainment	0.702	10	A++
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.855	37	A+
Z3 Human Resource	0.747	70	A	Z7 Global Connectivity	0.288	146	A--
Z3.1 Health	0.775	133	A--	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.508	145	A--	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.718	9	A++	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.007	139	A--
				Z7.5 Information Connectivity	0.315	114	A-
				Z7.6 Residents Connectivity	0.017	136	A--
				Z7.7 Enterprises Connectivity	0.254	110	A-

MONTERREY CITY COMPETITIVENESS

Table A2.161 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10 000)	366.43
Area (Sq Km)	362.15
GDP per Capita (\$)	13 953
GDP Growth Rate (%)	9.89



Table A2.162 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.345	143	A--	Z3.4 Status of Talent	0.438	57	A+
Nominal/Real Exchange Rate Ratio	0.081	270	B-	Z3.5 Education Development	0.423	96	A-
GDP	0.087	48	A+	Z3.6 Cost of Labor Force	0.819	31	A+
GDP per Capita	0.220	209	B+	Z4 Hard Environment	0.545	121	A--
GDP per Square Kilometer	0.219	59	A+	Z4.1 Basic Elements	0.734	102	A-
Real Economic Growth Rate (5 Years)	0.447	101	A-	Z4.2 Financial Market	0.497	91	A-
Employment Rate	0.956	94	A-	Z4.3 The Ability for Innovation	0.345	130	A--
Labor Productivity	0.133	241	B-	Z4.4 Market Scale	0.284	110	A-
Number of International Patents	0.000	451	D++	Z5 Soft Environment	0.573	130	A--
Multinational Corporation Score	0.112	135	A--	Z5.1 Market System	0.466	125	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.664	92	A-
Z1 Enterprise Quality	0.588	116	A-	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.550	110	A-	Z5.4 Public Service	0.548	82	A
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	0.300	147	A--
Z1.3 Enterprise Management	0.700	98	A-	Z5.6 Paying Taxes	0.679	106	A-
Z1.4 Enterprise Operation	0.450	103	A-	Z6 Living Environment	0.822	72	A
Z1.5 Brand	0.300	123	A--	Z6.1 Natural Environment	0.804	50	A+
Z1.6 Enterprise Performance	0.533	70	A	Z6.2 Environmental Quality	0.742	113	A-
Z2 Industry Structure	0.455	108	A-	Z6.3 Shopping Environment	0.622	137	A--
Z2.1 Manufacturing Development	0.554	113	A-	Z6.4 Dining & Restaurant	0.898	29	A++
Z2.2 Service Industry Development	0.568	60	A+	Z6.5 Housing	0.624	118	A-
Z2.3 Financial Sector Development	0.223	106	A-	Z6.6 Culture and Entertainment	0.440	73	A
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.941	7	A++
Z3 Human Resource	0.768	52	A+	Z7 Global Connectivity	0.392	112	A-
Z3.1 Health	0.814	126	A--	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.602	112	A-	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.580	25	A++	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.083	89	A
				Z7.5 Information Connectivity	0.357	94	A-
				Z7.6 Residents Connectivity	0.057	109	A-
				Z7.7 Enterprises Connectivity	0.260	106	A-

MONTREAL CITY COMPETITIVENESS

Table A2.163 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	162.07
Area (Sq Km)	499.20
GDP per Capita (\$)	40766
GDP Growth Rate (%)	3.42



Table A2.164 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.534	23	A++	Z3.4 Status of Talent	0.428	65	A
Nominal/Real Exchange Rate Ratio	0.043	315	C++	Z3.5 Education Development	0.479	51	A+
GDP	0.113	30	A++	Z3.6 Cost of Labor Force	0.662	68	A
GDP per Capita	0.649	82	A	Z4 Hard Environment	0.672	64	A
GDP per Square Kilometer	0.206	64	A	Z4.1 Basic Elements	0.766	86	A
Real Economic Growth Rate (5 Years)	0.226	313	C++	Z4.2 Financial Market	0.529	75	A
Employment Rate	0.864	389	C	Z4.3 The Ability for Innovation	0.594	41	A+
Labor Productivity	0.428	120	A-	Z4.4 Market Scale	0.405	82	A
Number of International Patents	0.307	62	A	Z5 Soft Environment	0.786	62	A
Multinational Corporation Score	0.205	73	A	Z5.1 Market System	0.644	43	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.869	14	A++
Z1 Enterprise Quality	0.768	61	A	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.600	100	A-	Z5.4 Public Service	0.652	45	A+
Z1.2 Corporate System	0.950	8	A++	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.865	12	A++
Z1.4 Enterprise Operation	0.508	87	A	Z6 Living Environment	0.800	96	A-
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.421	145	A--
Z1.6 Enterprise Performance	0.333	116	A-	Z6.2 Environmental Quality	0.978	14	A++
Z2 Industry Structure	0.496	84	A	Z6.3 Shopping Environment	0.693	114	A-
Z2.1 Manufacturing Development	0.453	140	A--	Z6.4 Dining & Restaurant	0.781	92	A-
Z2.2 Service Industry Development	0.567	61	A	Z6.5 Housing	0.694	73	A
Z2.3 Financial Sector Development	0.346	55	A+	Z6.6 Culture and Entertainment	0.464	53	A+
Z2.4 High-Tech Industry Development	0.602	29	A++	Z6.7 Social Security	0.905	18	A++
Z3 Human Resource	0.793	27	A++	Z7 Global Connectivity	0.520	54	A+
Z3.1 Health	0.952	30	A++	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.711	61	A	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.564	30	A++	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.120	72	A
				Z7.5 Information Connectivity	0.528	22	A++
				Z7.6 Residents Connectivity	0.282	36	A+
				Z7.7 Enterprises Connectivity	0.371	45	A+

MOSCOW CITY COMPETITIVENESS

Table A2.165 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10 000)	1040.66
Area (Sq Km)	1081.00
GDP per Capita (\$)	7728
GDP Growth Rate (%)	12.28



Table A2.166 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.525	30	A++	Z3.4 Status of Talent	0.708	9	A++
Nominal/Real Exchange Rate Ratio	0.148	189	B+	Z3.5 Education Development	0.640	12	A++
GDP	0.137	25	A++	Z3.6 Cost of Labor Force	0.462	134	A--
GDP per Capita	0.120	253	B-	Z4 Hard Environment	0.647	82	A
GDP per Square Kilometer	0.116	136	A--	Z4.1 Basic Elements	0.724	105	A-
Real Economic Growth Rate (5 Years)	0.529	71	A	Z4.2 Financial Market	0.282	146	A--
Employment Rate	1.000	1	A++	Z4.3 The Ability for Innovation	0.675	20	A++
Labor Productivity	0.082	275	B--	Z4.4 Market Scale	0.526	29	A++
Number of International Patents	0.344	36	A+	Z5 Soft Environment	0.524	145	A--
Multinational Corporation Score	0.549	9	A++	Z5.1 Market System	0.380	137	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.618	100	A-
Z1 Enterprise Quality	0.580	117	A-	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.500	126	A--	Z5.4 Public Service	0.272	147	A--
Z1.2 Corporate System	0.750	70	A	Z5.5 Strategy and Experience	0.400	142	A--
Z1.3 Enterprise Management	0.667	106	A-	Z5.6 Paying Taxes	0.617	137	A--
Z1.4 Enterprise Operation	0.439	107	A-	Z6 Living Environment	0.661	146	A--
Z1.5 Brand	0.300	123	A--	Z6.1 Natural Environment	0.535	136	A--
Z1.6 Enterprise Performance	0.533	70	A	Z6.2 Environmental Quality	0.776	108	A-
Z2 Industry Structure	0.569	44	A+	Z6.3 Shopping Environment	0.509	144	A--
Z2.1 Manufacturing Development	0.720	43	A+	Z6.4 Dining & Restaurant	0.611	143	A--
Z2.2 Service Industry Development	0.756	9	A++	Z6.5 Housing	0.525	140	A--
Z2.3 Financial Sector Development	0.323	60	A+	Z6.6 Culture and Entertainment	0.738	6	A++
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.385	149	A--
Z3 Human Resource	0.834	11	A++	Z7 Global Connectivity	0.528	52	A+
Z3.1 Health	0.788	130	A--	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.552	134	A--	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.843	4	A++	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.432	9	A++
				Z7.5 Information Connectivity	0.503	32	A+
				Z7.6 Residents Connectivity	0.065	102	A-
				Z7.7 Enterprises Connectivity	0.541	8	A++

MUMBAI CITY COMPETITIVENESS

Table A2.167 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	1640.00
Area (Sq Km)	603.45
GDP per Capita (\$)	1659
GDP Growth Rate (%)	11.30



Table A2.168 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.380	114	A-	Z3.4 Status of Talent	0.086	130	A--
Nominal/Real Exchange Rate Ratio	0.374	12	A++	Z3.5 Education Development	0.462	74	A
GDP	0.046	107	A-	Z3.6 Cost of Labor Force	0.830	29	A++
GDP per Capita	0.023	418	C-	Z4 Hard Environment	0.581	103	A-
GDP per Square Kilometer	0.070	193	B+	Z4.1 Basic Elements	0.603	139	A--
Real Economic Growth Rate (5 Years)	0.496	82	A	Z4.2 Financial Market	0.462	105	A-
Employment Rate	0.885	352	C+	Z4.3 The Ability for Innovation	0.424	103	A-
Labor Productivity	0.027	408	C-	Z4.4 Market Scale	0.494	33	A+
Number of International Patents	0.326	49	A+	Z5 Soft Environment	0.555	139	A--
Multinational Corporation Score	0.414	24	A++	Z5.1 Market System	0.308	146	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.413	145	A--
Z1 Enterprise Quality	0.845	35	A+	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.750	52	A+	Z5.4 Public Service	0.511	109	A-
Z1.2 Corporate System	0.650	97	A-	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.800	79	A	Z5.6 Paying Taxes	0.526	144	A--
Z1.4 Enterprise Operation	0.580	72	A	Z6 Living Environment	0.648	147	A--
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.525	138	A--
Z1.6 Enterprise Performance	0.967	2	A++	Z6.2 Environmental Quality	0.724	116	A-
Z2 Industry Structure	0.656	15	A++	Z6.3 Shopping Environment	0.491	145	A--
Z2.1 Manufacturing Development	0.830	9	A++	Z6.4 Dining & Restaurant	0.701	128	A--
Z2.2 Service Industry Development	0.643	31	A+	Z6.5 Housing	0.269	149	A--
Z2.3 Financial Sector Development	0.579	14	A++	Z6.6 Culture and Entertainment	0.381	120	A-
Z2.4 High-Tech Industry Development	0.547	48	A+	Z6.7 Social Security	0.904	19	A++
Z3 Human Resource	0.640	145	A--	Z7 Global Connectivity	0.471	74	A
Z3.1 Health	0.492	147	A--	Z7.1 Location Convenience	0.532	74	A
Z3.2 Literacy Quality	0.480	147	A--	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.714	10	A++	Z7.3 Water Transportation	0.354	38	A+
				Z7.4 Air Transportation	0.121	71	A
				Z7.5 Information Connectivity	0.388	77	A
				Z7.6 Residents Connectivity	0.009	142	A--
				Z7.7 Enterprises Connectivity	0.343	52	A+

MUNICH CITY COMPETITIVENESS

Table A2.169 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	128.83
Area (Sq Km)	310.40
GDP per Capita (\$)	40530
GDP Growth Rate (%)	1.18



Table A2.170 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.467	60	A+	Z3.4 Status of Talent	0.731	6	A++
Nominal/Real Exchange Rate Ratio	0.026	415	C-	Z3.5 Education Development	0.408	106	A-
GDP	0.089	46	A+	Z3.6 Cost of Labor Force	0.615	89	A
GDP per Capita	0.645	84	A	Z4 Hard Environment	0.644	84	A
GDP per Square Kilometer	0.261	39	A+	Z4.1 Basic Elements	0.601	140	A--
Real Economic Growth Rate (5 Years)	0.149	434	C--	Z4.2 Financial Market	0.584	62	A
Employment Rate	0.881	363	C	Z4.3 The Ability for Innovation	0.527	65	A
Labor Productivity	0.427	121	A--	Z4.4 Market Scale	0.484	39	A+
Number of International Patents	0.119	123	A--	Z5 Soft Environment	0.816	51	A+
Multinational Corporation Score	0.346	37	A+	Z5.1 Market System	0.607	56	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.876	9	A++
Z1 Enterprise Quality	0.902	15	A++	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	1.000	1	A++	Z5.4 Public Service	0.585	58	A+
Z1.2 Corporate System	0.950	8	A++	Z5.5 Strategy and Experience	0.800	39	A+
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.825	28	A++
Z1.4 Enterprise Operation	0.773	19	A++	Z6 Living Environment	0.888	15	A++
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.594	125	A--
Z1.6 Enterprise Performance	0.400	106	A-	Z6.2 Environmental Quality	0.975	18	A++
Z2 Industry Structure	0.618	27	A++	Z6.3 Shopping Environment	0.935	8	A++
Z2.1 Manufacturing Development	0.769	21	A++	Z6.4 Dining & Restaurant	0.836	64	A
Z2.2 Service Industry Development	0.604	44	A+	Z6.5 Housing	0.920	5	A++
Z2.3 Financial Sector Development	0.398	47	A+	Z6.6 Culture and Entertainment	0.393	112	A-
Z2.4 High-Tech Industry Development	0.680	9	A++	Z6.7 Social Security	0.822	70	A
Z3 Human Resource	0.806	21	A++	Z7 Global Connectivity	0.545	44	A+
Z3.1 Health	0.974	15	A++	Z7.1 Location Convenience	0.532	74	A
Z3.2 Literacy Quality	0.657	83	A	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.475	57	A+	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.262	29	A++
				Z7.5 Information Connectivity	0.423	61	A
				Z7.6 Residents Connectivity	0.280	37	A+
				Z7.7 Enterprises Connectivity	0.449	25	A++

NAGOYA CITY COMPETITIVENESS

Table A2.171 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	221.51
Area (Sq Km)	326.45
GDP per Capita (\$)	40521
GDP Growth Rate (%)	0.55



Table A2.172 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.470	56	A+	Z3.4 Status of Talent	0.426	69	A
Nominal/Real Exchange Rate Ratio	0.017	448	C--	Z3.5 Education Development	0.396	110	A-
GDP	0.153	21	A++	Z3.6 Cost of Labor Force	0.472	130	A--
GDP per Capita	0.645	85	A	Z4 Hard Environment	0.731	40	A+
GDP per Square Kilometer	0.427	14	A++	Z4.1 Basic Elements	0.797	73	A
Real Economic Growth Rate (5 Years)	0.128	481	D+	Z4.2 Financial Market	0.704	8	A++
Employment Rate	0.965	56	A+	Z4.3 The Ability for Innovation	0.524	67	A
Labor Productivity	0.450	110	A-	Z4.4 Market Scale	0.470	48	A+
Number of International Patents	0.342	37	A+	Z5 Soft Environment	0.751	74	A
Multinational Corporation Score	0.062	212	B	Z5.1 Market System	0.589	85	A
Subentry Competitiveness				Z5.2 Market Regulation	0.736	74	A
Z1 Enterprise Quality	0.725	75	A	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.850	23	A++	Z5.4 Public Service	0.526	98	A-
Z1.2 Corporate System	0.650	97	A-	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.833	75	A	Z5.6 Paying Taxes	0.785	79	A
Z1.4 Enterprise Operation	0.654	56	A+	Z6 Living Environment	0.830	59	A+
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.796	53	A+
Z1.6 Enterprise Performance	0.500	81	A	Z6.2 Environmental Quality	0.922	77	A
Z2 Industry Structure	0.545	51	A+	Z6.3 Shopping Environment	0.735	82	A
Z2.1 Manufacturing Development	0.712	46	A+	Z6.4 Dining & Restaurant	0.804	86	A
Z2.2 Service Industry Development	0.582	52	A+	Z6.5 Housing	0.714	54	A+
Z2.3 Financial Sector Development	0.266	85	A	Z6.6 Culture and Entertainment	0.417	93	A-
Z2.4 High-Tech Industry Development	0.602	29	A++	Z6.7 Social Security	0.729	94	A-
Z3 Human Resource	0.750	67	A	Z7 Global Connectivity	0.515	56	A+
Z3.1 Health	0.978	11	A++	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.803	26	A++	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.516	41	A+	Z7.3 Water Transportation	0.406	28	A++
				Z7.4 Air Transportation	0.069	98	A-
				Z7.5 Information Connectivity	0.317	113	A-
				Z7.6 Residents Connectivity	0.097	86	A
				Z7.7 Enterprises Connectivity	0.240	120	A-

NANCHANG CITY COMPETITIVENESS

Table A2.173 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	214.52
Area (Sq Km)	617.00
GDP per Capita (\$)	3997
GDP Growth Rate (%)	17.18



Table A2.174 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.219	274	B--	Z3.4 Status of Talent	0.047	145	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.400	108	A-
GDP	0.014	277	B--	Z3.6 Cost of Labor Force	0.913	6	A++
GDP per Capita	0.061	329	C++	Z4 Hard Environment	0.517	142	A--
GDP per Square Kilometer	0.021	289	B--	Z4.1 Basic Elements	0.866	29	A++
Real Economic Growth Rate (5 Years)	0.697	15	A++	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.910	279	B--	Z4.3 The Ability for Innovation	0.312	146	A--
Labor Productivity	0.052	336	C+	Z4.4 Market Scale	0.158	143	A--
Number of International Patents	0.005	315	C++	Z5 Soft Environment	0.589	124	A--
Multinational Corporation Score	0.023	338	C+	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.492	136	A--	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.600	100	A-	Z5.4 Public Service	0.429	135	A--
Z1.2 Corporate System	0.500	127	A--	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.567	133	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.304	134	A--	Z6 Living Environment	0.848	40	A+
Z1.5 Brand	0.300	123	A--	Z6.1 Natural Environment	0.846	31	A+
Z1.6 Enterprise Performance	0.433	103	A-	Z6.2 Environmental Quality	0.612	129	A--
Z2 Industry Structure	0.337	143	A--	Z6.3 Shopping Environment	0.785	50	A+
Z2.1 Manufacturing Development	0.501	128	A--	Z6.4 Dining & Restaurant	0.927	14	A++
Z2.2 Service Industry Development	0.279	143	A--	Z6.5 Housing	0.695	70	A
Z2.3 Financial Sector Development	0.163	137	A--	Z6.6 Culture and Entertainment	0.524	29	A++
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.841	45	A+
Z3 Human Resource	0.667	135	A--	Z7 Global Connectivity	0.301	142	A--
Z3.1 Health	0.877	118	A-	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.532	138	A--	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.425	91	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.018	131	A--
				Z7.5 Information Connectivity	0.215	146	A--
				Z7.6 Residents Connectivity	0.003	150	A--
				Z7.7 Enterprises Connectivity	0.224	146	A--

NANJING CITY COMPETITIVENESS

Table A2.175 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	513.38
Area (Sq Km)	4723.00
GDP per Capita (\$)	4467
GDP Growth Rate (%)	14.20



Table A2.176 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.253	239	B	Z3.4 Status of Talent	0.078	138	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.554	25	A++
GDP	0.046	104	A-	Z3.6 Cost of Labor Force	0.814	34	A+
GDP per Capita	0.068	313	C++	Z4 Hard Environment	0.559	112	A-
GDP per Square Kilometer	0.009	386	C	Z4.1 Basic Elements	0.843	44	A+
Real Economic Growth Rate (5 Years)	0.595	45	A+	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.923	230	B	Z4.3 The Ability for Innovation	0.380	118	A-
Labor Productivity	0.064	309	C++	Z4.4 Market Scale	0.255	118	A-
Number of International Patents	0.031	199	B+	Z5 Soft Environment	0.608	118	A-
Multinational Corporation Score	0.066	205	B+	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.598	111	A-	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.750	52	A+	Z5.4 Public Service	0.438	128	A--
Z1.2 Corporate System	0.600	110	A-	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.667	106	A-	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.272	144	A--	Z6 Living Environment	0.825	71	A
Z1.5 Brand	0.300	123	A--	Z6.1 Natural Environment	0.845	32	A+
Z1.6 Enterprise Performance	0.700	35	A+	Z6.2 Environmental Quality	0.661	122	A--
Z2 Industry Structure	0.364	131	A--	Z6.3 Shopping Environment	0.807	37	A+
Z2.1 Manufacturing Development	0.516	124	A--	Z6.4 Dining & Restaurant	0.833	69	A
Z2.2 Service Industry Development	0.358	124	A--	Z6.5 Housing	0.703	61	A
Z2.3 Financial Sector Development	0.180	130	A--	Z6.6 Culture and Entertainment	0.405	106	A-
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.832	61	A
Z3 Human Resource	0.703	113	A-	Z7 Global Connectivity	0.341	131	A--
Z3.1 Health	0.885	108	A-	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.611	105	A-	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.422	94	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.029	124	A--
				Z7.5 Information Connectivity	0.294	120	A-
				Z7.6 Residents Connectivity	0.016	138	A--
				Z7.7 Enterprises Connectivity	0.238	122	A--

NAPLES CITY COMPETITIVENESS

Table A2.177 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	99.52
Area (Sq Km)	117.00
GDP per Capita (\$)	14672
GDP Growth Rate (%)	0.75



Table A2.178 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.220	273	B--	Z3.4 Status of Talent	0.487	33	A+
Nominal/Real Exchange Rate Ratio	0.034	340	C+	Z3.5 Education Development	0.331	147	A--
GDP	0.025	201	B+	Z3.6 Cost of Labor Force	0.676	61	A
GDP per Capita	0.232	206	B+	Z4 Hard Environment	0.521	141	A--
GDP per Square Kilometer	0.194	69	A	Z4.1 Basic Elements	0.679	122	A--
Real Economic Growth Rate (5 Years)	0.135	462	D++	Z4.2 Financial Market	0.462	105	A-
Employment Rate	0.708	470	D++	Z4.3 The Ability for Innovation	0.416	104	A-
Labor Productivity	0.286	192	B+	Z4.4 Market Scale	0.219	126	A--
Number of International Patents	0.036	192	B+	Z5 Soft Environment	0.595	123	A--
Multinational Corporation Score	0.019	352	C+	Z5.1 Market System	0.368	140	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.569	114	A-
Z1 Enterprise Quality	0.511	133	A--	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.500	126	A--	Z5.4 Public Service	0.524	101	A-
Z1.2 Corporate System	0.600	110	A-	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.600	124	A--	Z5.6 Paying Taxes	0.719	98	A-
Z1.4 Enterprise Operation	0.676	45	A+	Z6 Living Environment	0.826	68	A
Z1.5 Brand	0.200	135	A--	Z6.1 Natural Environment	0.837	37	A+
Z1.6 Enterprise Performance	0.233	132	A--	Z6.2 Environmental Quality	0.936	62	A
Z2 Industry Structure	0.442	112	A-	Z6.3 Shopping Environment	0.902	18	A++
Z2.1 Manufacturing Development	0.656	79	A	Z6.4 Dining & Restaurant	0.611	143	A--
Z2.2 Service Industry Development	0.317	134	A--	Z6.5 Housing	0.663	95	A-
Z2.3 Financial Sector Development	0.256	93	A-	Z6.6 Culture and Entertainment	0.298	145	A--
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.845	43	A+
Z3 Human Resource	0.752	66	A	Z7 Global Connectivity	0.451	88	A
Z3.1 Health	0.949	34	A+	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.902	3	A++	Z7.2 Land Transportation	0.500	142	A--
Z3.3 Status of the Labor Market	0.257	150	A--	Z7.3 Water Transportation	0.294	59	A+
				Z7.4 Air Transportation	0.057	106	A-
				Z7.5 Information Connectivity	0.382	84	A
				Z7.6 Residents Connectivity	0.204	59	A+
				Z7.7 Enterprises Connectivity	0.242	118	A-

NASHVILLE CITY COMPETITIVENESS

Table A2.179 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	57.44
Area (Sq Km)	1241.90
GDP per Capita (\$)	43 565
GDP Growth Rate (%)	3.51



Table A2.180 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.352	138	A--	Z3.4 Status of Talent	0.429	62	A
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.489	50	A+
GDP	0.042	120	A-	Z3.6 Cost of Labor Force	0.668	64	A
GDP per Capita	0.694	59	A+	Z4 Hard Environment	0.766	23	A++
GDP per Square Kilometer	0.031	255	B-	Z4.1 Basic Elements	0.986	2	A++
Real Economic Growth Rate (5 Years)	0.229	308	C++	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.924	227	B	Z4.3 The Ability for Innovation	0.486	87	A
Labor Productivity	0.590	44	A+	Z4.4 Market Scale	0.473	47	A+
Number of International Patents	0.080	151	B++	Z5 Soft Environment	0.836	41	A+
Multinational Corporation Score	0.074	193	B+	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.620	105	A-	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.600	100	A-	Z5.4 Public Service	0.887	5	A++
Z1.2 Corporate System	1.000	1	A++	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.867	61	A	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.375	116	A-	Z6 Living Environment	0.768	126	A--
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.708	84	A
Z1.6 Enterprise Performance	0.067	149	A--	Z6.2 Environmental Quality	0.944	52	A+
Z2 Industry Structure	0.464	105	A-	Z6.3 Shopping Environment	0.666	124	A--
Z2.1 Manufacturing Development	0.661	75	A	Z6.4 Dining & Restaurant	0.684	131	A--
Z2.2 Service Industry Development	0.423	111	A-	Z6.5 Housing	0.721	50	A+
Z2.3 Financial Sector Development	0.232	101	A-	Z6.6 Culture and Entertainment	0.345	130	A--
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.667	123	A--
Z3 Human Resource	0.747	70	A	Z7 Global Connectivity	0.366	121	A--
Z3.1 Health	0.858	121	A--	Z7.1 Location Convenience	0.216	128	A--
Z3.2 Literacy Quality	0.751	47	A+	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.381	121	A--	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.127	66	A
				Z7.5 Information Connectivity	0.230	142	A--
				Z7.6 Residents Connectivity	0.069	99	A-
				Z7.7 Enterprises Connectivity	0.338	58	A+

NEW YORK CITY COMPETITIVENESS

Table A2.181 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	821.38
Area (Sq Km)	780.90
GDP per Capita (\$)	61 178
GDP Growth Rate (%)	1.68



Table A2.182 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	1.000	1	A++	Z3.4 Status of Talent	0.314	108	A-
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.815	3	A++
GDP	0.859	3	A++	Z3.6 Cost of Labor Force	0.318	148	A--
GDP per Capita	0.976	2	A++	Z4 Hard Environment	0.968	2	A++
GDP per Square Kilometer	1.000	1	A++	Z4.1 Basic Elements	0.761	90	A
Real Economic Growth Rate (5 Years)	0.167	410	C-	Z4.2 Financial Market	1.000	1	A++
Employment Rate	0.896	321	C++	Z4.3 The Ability for Innovation	0.671	22	A++
Labor Productivity	0.880	2	A++	Z4.4 Market Scale	0.872	2	A++
Number of International Patents	0.626	5	A++	Z5 Soft Environment	0.906	11	A++
Multinational Corporation Score	1.000	1	A++	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.877	27	A++	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	1.000	1	A++	Z5.4 Public Service	0.672	39	A+
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	1.000	1	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.886	7	A++	Z6 Living Environment	0.774	121	A--
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.652	103	A-
Z1.6 Enterprise Performance	0.133	143	A--	Z6.2 Environmental Quality	0.954	39	A+
Z2 Industry Structure	0.971	2	A++	Z6.3 Shopping Environment	0.818	31	A+
Z2.1 Manufacturing Development	0.967	3	A++	Z6.4 Dining & Restaurant	0.610	145	A--
Z2.2 Service Industry Development	0.968	3	A++	Z6.5 Housing	0.559	136	A--
Z2.3 Financial Sector Development	0.998	2	A++	Z6.6 Culture and Entertainment	0.381	120	A-
Z2.4 High-Tech Industry Development	0.918	2	A++	Z6.7 Social Security	0.801	78	A
Z3 Human Resource	0.775	44	A+	Z7 Global Connectivity	1.000	1	A++
Z3.1 Health	0.915	77	A	Z7.1 Location Convenience	1.000	1	A++
Z3.2 Literacy Quality	0.727	53	A+	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.623	19	A++	Z7.3 Water Transportation	0.458	19	A++
				Z7.4 Air Transportation	1.000	1	A++
				Z7.5 Information Connectivity	0.642	11	A++
				Z7.6 Residents Connectivity	0.330	28	A++
				Z7.7 Enterprises Connectivity	0.976	2	A++

NINGBO CITY COMPETITIVENESS

Table A2.183 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	114.03
Area (Sq Km)	2560.00
GDP per Capita (\$)	5889
GDP Growth Rate (%)	14.07



Table A2.184 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.224	266	B-	Z3.4 Status of Talent	0.093	126	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.361	135	A--
GDP	0.029	179	B++	Z3.6 Cost of Labor Force	0.856	18	A++
GDP per Capita	0.091	283	B--	Z4 Hard Environment	0.546	120	A-
GDP per Square Kilometer	0.010	365	C	Z4.1 Basic Elements	0.937	3	A++
Real Economic Growth Rate (5 Years)	0.590	46	A+	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.920	241	B-	Z4.3 The Ability for Innovation	0.318	143	A--
Labor Productivity	0.072	289	B--	Z4.4 Market Scale	0.182	138	A--
Number of International Patents	0.007	286	B--	Z5 Soft Environment	0.604	120	A-
Multinational Corporation Score	0.025	333	C+	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.539	128	A--	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.550	110	A-	Z5.4 Public Service	0.416	142	A--
Z1.2 Corporate System	0.550	121	A--	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.533	143	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.295	137	A--	Z6 Living Environment	0.785	114	A-
Z1.5 Brand	0.200	135	A--	Z6.1 Natural Environment	0.880	18	A++
Z1.6 Enterprise Performance	0.833	13	A++	Z6.2 Environmental Quality	0.391	147	A--
Z2 Industry Structure	0.324	144	A--	Z6.3 Shopping Environment	0.774	54	A+
Z2.1 Manufacturing Development	0.447	141	A--	Z6.4 Dining & Restaurant	0.905	23	A++
Z2.2 Service Industry Development	0.262	146	A--	Z6.5 Housing	0.664	94	A-
Z2.3 Financial Sector Development	0.184	128	A--	Z6.6 Culture and Entertainment	0.393	112	A-
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.836	52	A+
Z3 Human Resource	0.678	129	A--	Z7 Global Connectivity	0.468	77	A
Z3.1 Health	0.885	108	A-	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.606	108	A-	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.448	72	A	Z7.3 Water Transportation	0.588	9	A++
				Z7.4 Air Transportation	0.015	133	A--
				Z7.5 Information Connectivity	0.307	117	A-
				Z7.6 Residents Connectivity	0.033	124	A--
				Z7.7 Enterprises Connectivity	0.231	135	A--

NUREMBERG CITY COMPETITIVENESS

Table A2.185 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	49.92
Area (Sq Km)	186.37
GDP per Capita (\$)	42958
GDP Growth Rate (%)	2.16



Table A2.186 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.296	191	B+	Z3.4 Status of Talent	0.731	6	A++
Nominal/Real Exchange Rate Ratio	0.026	415	C-	Z3.5 Education Development	0.352	143	A--
GDP	0.036	136	A--	Z3.6 Cost of Labor Force	0.634	78	A
GDP per Capita	0.684	67	A	Z4 Hard Environment	0.596	102	A-
GDP per Square Kilometer	0.179	77	A	Z4.1 Basic Elements	0.553	147	A--
Real Economic Growth Rate (5 Years)	0.183	382	C	Z4.2 Financial Market	0.584	62	A
Employment Rate	0.832	424	C--	Z4.3 The Ability for Innovation	0.413	105	A-
Labor Productivity	0.368	159	B++	Z4.4 Market Scale	0.483	40	A+
Number of International Patents	0.005	307	C++	Z5 Soft Environment	0.796	59	A+
Multinational Corporation Score	0.046	262	B-	Z5.1 Market System	0.607	56	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.876	9	A++
Z1 Enterprise Quality	0.759	66	A	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.750	52	A+	Z5.4 Public Service	0.577	67	A
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.900	48	A+	Z5.6 Paying Taxes	0.825	28	A++
Z1.4 Enterprise Operation	0.687	42	A+	Z6 Living Environment	0.826	68	A
Z1.5 Brand	0.600	70	A	Z6.1 Natural Environment	0.615	117	A-
Z1.6 Enterprise Performance	0.333	116	A-	Z6.2 Environmental Quality	0.972	23	A++
Z2 Industry Structure	0.460	106	A-	Z6.3 Shopping Environment	0.913	12	A++
Z2.1 Manufacturing Development	0.609	99	A-	Z6.4 Dining & Restaurant	0.635	141	A--
Z2.2 Service Industry Development	0.425	110	A-	Z6.5 Housing	0.877	11	A++
Z2.3 Financial Sector Development	0.266	85	A	Z6.6 Culture and Entertainment	0.286	147	A--
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.797	79	A
Z3 Human Resource	0.782	37	A+	Z7 Global Connectivity	0.421	102	A-
Z3.1 Health	0.915	77	A	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.657	83	A	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.453	66	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.043	115	A-
				Z7.5 Information Connectivity	0.290	122	A--
				Z7.6 Residents Connectivity	0.171	68	A
				Z7.7 Enterprises Connectivity	0.263	104	A-

OSAKA CITY COMPETITIVENESS

Table A2.187 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	262.88
Area (Sq Km)	222.11
GDP per Capita (\$)	37577
GDP Growth Rate (%)	0.49



Table A2.188 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.457	67	A	Z3.4 Status of Talent	0.429	62	A
Nominal/Real Exchange Rate Ratio	0.017	448	C--	Z3.5 Education Development	0.617	17	A++
GDP	0.169	19	A++	Z3.6 Cost of Labor Force	0.444	136	A--
GDP per Capita	0.598	106	A-	Z4 Hard Environment	0.782	19	A++
GDP per Square Kilometer	0.081	176	B++	Z4.1 Basic Elements	0.769	85	A
Real Economic Growth Rate (5 Years)	0.126	489	D+	Z4.2 Financial Market	0.707	7	A++
Employment Rate	0.922	237	B	Z4.3 The Ability for Innovation	0.664	24	A++
Labor Productivity	0.432	114	A-	Z4.4 Market Scale	0.529	28	A++
Number of International Patents	0.781	2	A++	Z5 Soft Environment	0.770	67	A
Multinational Corporation Score	0.132	112	A-	Z5.1 Market System	0.589	85	A
				Z5.2 Market Regulation	0.736	74	A
Subentry Competitiveness				Z5.3 Social Management	0.900	19	A++
Z1 Enterprise Quality	0.906	14	A++	Z5.4 Public Service	0.528	97	A-
Z1.1 Corporate Culture	1.000	1	A++	Z5.5 Strategy and Experience	0.700	53	A+
Z1.2 Corporate System	0.850	41	A+	Z5.6 Paying Taxes	0.785	79	A
Z1.3 Enterprise Management	0.967	12	A++	Z6 Living Environment	0.762	129	A--
Z1.4 Enterprise Operation	0.763	23	A++	Z6.1 Natural Environment	0.793	55	A+
Z1.5 Brand	0.700	51	A+	Z6.2 Environmental Quality	0.905	89	A
Z1.6 Enterprise Performance	0.700	35	A+	Z6.3 Shopping Environment	0.724	91	A-
Z2 Industry Structure	0.603	32	A+	Z6.4 Dining & Restaurant	0.652	138	A--
Z2.1 Manufacturing Development	0.788	14	A++	Z6.5 Housing	0.686	78	A
Z2.2 Service Industry Development	0.676	26	A++	Z6.6 Culture and Entertainment	0.286	147	A--
Z2.3 Financial Sector Development	0.326	59	A+	Z6.7 Social Security	0.655	129	A--
Z2.4 High-Tech Industry Development	0.602	29	A++	Z7 Global Connectivity	0.548	41	A+
Z3 Human Resource	0.796	25	A++	Z7.1 Location Convenience	1.000	1	A++
Z3.1 Health	0.986	4	A++	Z7.2 Land Transportation	0.700	99	A-
Z3.2 Literacy Quality	0.803	26	A++	Z7.3 Water Transportation	0.364	35	A+
Z3.3 Status of the Labor Market	0.533	36	A+	Z7.4 Air Transportation	0.190	49	A+
				Z7.5 Information Connectivity	0.392	75	A
				Z7.6 Residents Connectivity	0.060	107	A-
				Z7.7 Enterprises Connectivity	0.255	108	A-

OSLO CITY COMPETITIVENESS

Table A2.189 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	52.54
Area (Sq Km)	454.00
GDP per Capita (\$)	57931
GDP Growth Rate (%)	1.72



Table A2.190 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.492	42	A+	Z3.4 Status of Talent	0.373	95	A-
Nominal/Real Exchange Rate Ratio	0.014	493	D+	Z3.5 Education Development	0.452	83	A
GDP	0.052	86	A	Z3.6 Cost of Labor Force	0.415	143	A--
GDP per Capita	0.924	7	A++	Z4 Hard Environment	0.662	73	A
GDP per Square Kilometer	0.104	146	A--	Z4.1 Basic Elements	0.686	119	A-
Real Economic Growth Rate (5 Years)	0.168	405	C-	Z4.2 Financial Market	0.505	88	A
Employment Rate	0.940	159	B++	Z4.3 The Ability for Innovation	0.629	30	A++
Labor Productivity	0.732	8	A++	Z4.4 Market Scale	0.439	66	A
Number of International Patents	0.262	73	A	Z5 Soft Environment	0.857	28	A++
Multinational Corporation Score	0.221	70	A	Z5.1 Market System	0.565	97	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.780	66	A
Z1 Enterprise Quality	0.767	63	A	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.950	9	A++	Z5.4 Public Service	0.543	84	A
Z1.2 Corporate System	0.650	97	A-	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.900	48	A+	Z5.6 Paying Taxes	0.932	3	A++
Z1.4 Enterprise Operation	0.649	59	A+	Z6 Living Environment	0.710	140	A--
Z1.5 Brand	0.600	70	A	Z6.1 Natural Environment	0.359	150	A--
Z1.6 Enterprise Performance	0.467	94	A-	Z6.2 Environmental Quality	0.921	79	A
Z2 Industry Structure	0.481	92	A-	Z6.3 Shopping Environment	0.707	107	A-
Z2.1 Manufacturing Development	0.583	108	A-	Z6.4 Dining & Restaurant	0.670	133	A--
Z2.2 Service Industry Development	0.478	96	A-	Z6.5 Housing	0.702	64	A
Z2.3 Financial Sector Development	0.320	63	A	Z6.6 Culture and Entertainment	0.452	64	A
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.568	141	A--
Z3 Human Resource	0.717	99	A-	Z7 Global Connectivity	0.548	41	A+
Z3.1 Health	0.938	50	A+	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.851	14	A++	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.402	111	A-	Z7.3 Water Transportation	0.323	49	A+
				Z7.4 Air Transportation	0.195	47	A+
				Z7.5 Information Connectivity	0.450	51	A+
				Z7.6 Residents Connectivity	0.238	46	A+
				Z7.7 Enterprises Connectivity	0.298	82	A

OTTAWA CITY COMPETITIVENESS

Table A2.191 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	80.45
Area (Sq Km)	2778.13
GDP per Capita (\$)	44703
GDP Growth Rate (%)	3.00



Table A2.192 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.399	100	A-	Z3.4 Status of Talent	0.467	40	A+
Nominal/Real Exchange Rate Ratio	0.043	315	C++	Z3.5 Education Development	0.461	76	A
GDP	0.061	71	A	Z3.6 Cost of Labor Force	0.628	80	A
GDP per Capita	0.712	45	A+	Z4 Hard Environment	0.732	39	A+
GDP per Square Kilometer	0.020	297	B--	Z4.1 Basic Elements	0.920	9	A++
Real Economic Growth Rate (5 Years)	0.212	334	C+	Z4.2 Financial Market	0.529	75	A
Employment Rate	0.921	238	B	Z4.3 The Ability for Innovation	0.624	32	A+
Labor Productivity	0.530	65	A	Z4.4 Market Scale	0.425	76	A
Number of International Patents	0.207	86	A	Z5 Soft Environment	0.845	36	A+
Multinational Corporation Score	0.120	123	A--	Z5.1 Market System	0.644	43	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.869	14	A++
Z1 Enterprise Quality	0.730	73	A	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.679	38	A+
Z1.2 Corporate System	0.850	41	A+	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.800	79	A	Z5.6 Paying Taxes	0.865	12	A++
Z1.4 Enterprise Operation	0.929	3	A++	Z6 Living Environment	0.803	94	A-
Z1.5 Brand	0.300	123	A--	Z6.1 Natural Environment	0.419	146	A--
Z1.6 Enterprise Performance	0.433	103	A-	Z6.2 Environmental Quality	0.957	35	A+
Z2 Industry Structure	0.477	96	A-	Z6.3 Shopping Environment	0.703	108	A-
Z2.1 Manufacturing Development	0.690	58	A+	Z6.4 Dining & Restaurant	0.816	78	A
Z2.2 Service Industry Development	0.467	100	A-	Z6.5 Housing	0.741	34	A+
Z2.3 Financial Sector Development	0.210	112	A-	Z6.6 Culture and Entertainment	0.488	40	A+
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.829	67	A
Z3 Human Resource	0.769	51	A+	Z7 Global Connectivity	0.469	75	A
Z3.1 Health	0.944	42	A+	Z7.1 Location Convenience	0.532	74	A
Z3.2 Literacy Quality	0.737	50	A+	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.445	76	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.039	117	A-
				Z7.5 Information Connectivity	0.485	42	A+
				Z7.6 Residents Connectivity	0.208	57	A+
				Z7.7 Enterprises Connectivity	0.272	99	A-

PANAMA CITY COMPETITIVENESS

Table A2.193 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10 000)	49.03
Area (Sq Km)	110.00
GDP per Capita (\$)	6485
GDP Growth Rate (%)	5.06

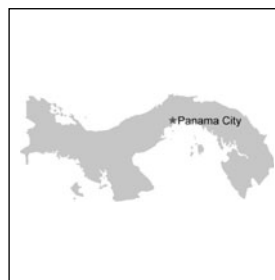


Table A2.194 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.226	264	B-	Z3.4 Status of Talent	0.348	103	A-
Nominal/Real Exchange Rate Ratio	0.075	291	B--	Z3.5 Education Development	0.404	107	A-
GDP	0.005	375	C	Z3.6 Cost of Labor Force	0.877	14	A++
GDP per Capita	0.101	272	B--	Z4 Hard Environment	0.531	132	A--
GDP per Square Kilometer	0.045	233	B	Z4.1 Basic Elements	0.761	90	A
Real Economic Growth Rate (5 Years)	0.282	224	B	Z4.2 Financial Market	0.598	57	A+
Employment Rate	0.883	361	C	Z4.3 The Ability for Innovation	0.358	125	A--
Labor Productivity	0.095	267	B-	Z4.4 Market Scale	0.095	149	A--
Number of International Patents	0.034	195	B+	Z5 Soft Environment	0.646	105	A-
Multinational Corporation Score	0.170	88	A	Z5.1 Market System	0.737	6	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.745	72	A
Z1 Enterprise Quality	0.538	129	A--	Z5.3 Social Management	0.400	144	A--
Z1.1 Corporate Culture	0.450	135	A--	Z5.4 Public Service	0.579	63	A
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.867	61	A	Z5.6 Paying Taxes	0.596	139	A--
Z1.4 Enterprise Operation	0.376	115	A-	Z6 Living Environment	0.849	39	A+
Z1.5 Brand	0.300	123	A--	Z6.1 Natural Environment	0.782	60	A+
Z1.6 Enterprise Performance	0.267	130	A--	Z6.2 Environmental Quality	0.935	65	A
Z2 Industry Structure	0.391	125	A--	Z6.3 Shopping Environment	0.682	121	A--
Z2.1 Manufacturing Development	0.518	122	A--	Z6.4 Dining & Restaurant	0.901	25	A++
Z2.2 Service Industry Development	0.444	105	A-	Z6.5 Housing	0.547	139	A--
Z2.3 Financial Sector Development	0.199	117	A-	Z6.6 Culture and Entertainment	0.464	53	A+
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.927	13	A++
Z3 Human Resource	0.708	111	A-	Z7 Global Connectivity	0.385	114	A-
Z3.1 Health	0.807	127	A--	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.603	111	A-	Z7.2 Land Transportation	0.300	149	A--
Z3.3 Status of the Labor Market	0.351	141	A--	Z7.3 Water Transportation	0.297	55	A+
				Z7.4 Air Transportation	0.035	120	A-
				Z7.5 Information Connectivity	0.312	116	A-
				Z7.6 Residents Connectivity	0.272	38	A+
				Z7.7 Enterprises Connectivity	0.255	108	A-

PARIS CITY COMPETITIVENESS

Table A2.195 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	977.29
Area (Sq Km)	2723.00
GDP per Capita (\$)	53725
GDP Growth Rate (%)	1.00



Table A2.196 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.759	4	A++	Z3.4 Status of Talent	0.957	3	A++
Nominal/Real Exchange Rate Ratio	0.022	434	C--	Z3.5 Education Development	1.000	1	A++
GDP	0.898	2	A++	Z3.6 Cost of Labor Force	0.434	139	A--
GDP per Capita	0.857	12	A++	Z4 Hard Environment	0.752	29	A++
GDP per Square Kilometer	0.300	34	A+	Z4.1 Basic Elements	0.492	149	A--
Real Economic Growth Rate (5 Years)	0.143	445	C--	Z4.2 Financial Market	0.504	89	A
Employment Rate	0.862	390	C	Z4.3 The Ability for Innovation	0.983	2	A++
Labor Productivity	0.585	47	A+	Z4.4 Market Scale	0.586	18	A++
Number of International Patents	0.695	3	A++	Z5 Soft Environment	0.838	40	A+
Multinational Corporation Score	0.652	4	A++	Z5.1 Market System	0.532	110	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.923	4	A++
Z1 Enterprise Quality	0.880	25	A++	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.900	14	A++	Z5.4 Public Service	0.592	57	A+
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	0.900	26	A++
Z1.3 Enterprise Management	0.900	48	A+	Z5.6 Paying Taxes	0.772	91	A-
Z1.4 Enterprise Operation	0.669	49	A+	Z6 Living Environment	1.000	1	A++
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.724	80	A
Z1.6 Enterprise Performance	0.667	43	A+	Z6.2 Environmental Quality	0.990	3	A++
Z2 Industry Structure	0.809	4	A++	Z6.3 Shopping Environment	0.978	5	A++
Z2.1 Manufacturing Development	0.955	4	A++	Z6.4 Dining & Restaurant	1.000	1	A++
Z2.2 Service Industry Development	0.952	4	A++	Z6.5 Housing	0.799	20	A++
Z2.3 Financial Sector Development	0.575	15	A++	Z6.6 Culture and Entertainment	1.000	1	A++
Z2.4 High-Tech Industry Development	0.724	6	A++	Z6.7 Social Security	0.677	119	A-
Z3 Human Resource	1.000	1	A++	Z7 Global Connectivity	0.804	4	A++
Z3.1 Health	0.969	17	A++	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.858	11	A++	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.569	28	A++	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.513	5	A++
				Z7.5 Information Connectivity	0.983	2	A++
				Z7.6 Residents Connectivity	0.503	13	A++
				Z7.7 Enterprises Connectivity	0.839	3	A++

PHILADELPHIA CITY COMPETITIVENESS

Table A2.197 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	145.63
Area (Sq Km)	352.20
GDP per Capita (\$)	47 707
GDP Growth Rate (%)	2.03



Table A2.198 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.565	19	A++	Z3.4 Status of Talent	0.438	57	A+
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.620	15	A++
GDP	0.119	28	A++	Z3.6 Cost of Labor Force	0.736	47	A+
GDP per Capita	0.760	31	A+	Z4 Hard Environment	0.823	8	A++
GDP per Square Kilometer	0.307	28	A++	Z4.1 Basic Elements	0.802	69	A
Real Economic Growth Rate (5 Years)	0.179	393	C-	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.842	411	C-	Z4.3 The Ability for Innovation	0.782	8	A++
Labor Productivity	0.775	5	A++	Z4.4 Market Scale	0.554	25	A++
Number of International Patents	0.339	39	A+	Z5 Soft Environment	0.871	25	A++
Multinational Corporation Score	0.149	99	A-	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.929	6	A++	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	1.000	1	A++	Z5.4 Public Service	0.780	22	A++
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	0.900	26	A++
Z1.3 Enterprise Management	0.967	12	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.672	48	A+	Z6 Living Environment	0.791	109	A-
Z1.5 Brand	1.000	1	A++	Z6.1 Natural Environment	0.664	97	A-
Z1.6 Enterprise Performance	0.567	62	A	Z6.2 Environmental Quality	0.959	33	A+
Z2 Industry Structure	0.529	63	A	Z6.3 Shopping Environment	0.720	95	A-
Z2.1 Manufacturing Development	0.758	27	A++	Z6.4 Dining & Restaurant	0.754	105	A-
Z2.2 Service Industry Development	0.493	91	A-	Z6.5 Housing	0.685	80	A
Z2.3 Financial Sector Development	0.322	62	A	Z6.6 Culture and Entertainment	0.369	126	A--
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.728	96	A-
Z3 Human Resource	0.773	45	A+	Z7 Global Connectivity	0.684	15	A++
Z3.1 Health	0.891	99	A-	Z7.1 Location Convenience	1.000	1	A++
Z3.2 Literacy Quality	0.649	92	A-	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.367	130	A--	Z7.3 Water Transportation	0.327	46	A+
				Z7.4 Air Transportation	0.351	13	A++
				Z7.5 Information Connectivity	0.513	27	A++
				Z7.6 Residents Connectivity	0.083	93	A-
				Z7.7 Enterprises Connectivity	0.424	31	A+

PHOENIX CITY COMPETITIVENESS

Table A2.199 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	146.98
Area (Sq Km)	971.30
GDP per Capita (\$)	40407
GDP Growth Rate (%)	3.73



Table A2.200 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.459	65	A	Z3.4 Status of Talent	0.343	105	A-
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.472	64	A
GDP	0.101	38	A+	Z3.6 Cost of Labor Force	0.673	62	A
GDP per Capita	0.644	88	A	Z4 Hard Environment	0.725	43	A+
GDP per Square Kilometer	0.095	162	B++	Z4.1 Basic Elements	0.783	78	A
Real Economic Growth Rate (5 Years)	0.237	292	B--	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.935	183	B+	Z4.3 The Ability for Innovation	0.539	60	A+
Labor Productivity	0.542	61	A	Z4.4 Market Scale	0.483	40	A+
Number of International Patents	0.223	80	A	Z5 Soft Environment	0.908	10	A++
Multinational Corporation Score	0.110	138	A--	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.693	86	A	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.650	85	A	Z5.4 Public Service	0.786	19	A++
Z1.2 Corporate System	0.850	41	A+	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.900	48	A+	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.475	97	A-	Z6 Living Environment	0.854	34	A+
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.835	39	A+
Z1.6 Enterprise Performance	0.533	70	A	Z6.2 Environmental Quality	0.959	33	A+
Z2 Industry Structure	0.493	87	A	Z6.3 Shopping Environment	0.666	124	A--
Z2.1 Manufacturing Development	0.627	92	A-	Z6.4 Dining & Restaurant	0.949	8	A++
Z2.2 Service Industry Development	0.530	77	A	Z6.5 Housing	0.696	68	A
Z2.3 Financial Sector Development	0.273	82	A	Z6.6 Culture and Entertainment	0.476	46	A+
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.690	111	A-
Z3 Human Resource	0.730	88	A	Z7 Global Connectivity	0.438	96	A-
Z3.1 Health	0.906	86	A	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.690	68	A	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.412	103	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.324	17	A++
				Z7.5 Information Connectivity	0.501	33	A+
				Z7.6 Residents Connectivity	0.159	72	A
				Z7.7 Enterprises Connectivity	0.419	34	A+

PITTSBURGH CITY COMPETITIVENESS

Table A2.201 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	31.63
Area (Sq Km)	142.80
GDP per Capita (\$)	34 195
GDP Growth Rate (%)	1.17



Table A2.202 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.388	108	A-	Z3.4 Status of Talent	0.337	106	A-
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.518	36	A+
GDP	0.018	243	B-	Z3.6 Cost of Labor Force	0.614	90	A
GDP per Capita	0.544	130	A--	Z4 Hard Environment	0.752	29	A++
GDP per Square Kilometer	0.118	134	A--	Z4.1 Basic Elements	0.853	36	A+
Real Economic Growth Rate (5 Years)	0.149	435	C--	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.868	382	C	Z4.3 The Ability for Innovation	0.607	37	A+
Labor Productivity	0.509	76	A	Z4.4 Market Scale	0.437	69	A
Number of International Patents	0.277	69	A	Z5 Soft Environment	0.820	49	A+
Multinational Corporation Score	0.104	143	A--	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.797	50	A+	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.750	52	A+	Z5.4 Public Service	0.801	13	A++
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	1.000	1	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.630	63	A	Z6 Living Environment	0.788	111	A-
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.557	132	A--
Z1.6 Enterprise Performance	0.300	123	A--	Z6.2 Environmental Quality	0.948	49	A+
Z2 Industry Structure	0.590	40	A+	Z6.3 Shopping Environment	0.720	95	A-
Z2.1 Manufacturing Development	0.846	7	A++	Z6.4 Dining & Restaurant	0.781	92	A-
Z2.2 Service Industry Development	0.536	70	A	Z6.5 Housing	0.703	61	A
Z2.3 Financial Sector Development	0.323	60	A+	Z6.6 Culture and Entertainment	0.429	82	A
Z2.4 High-Tech Industry Development	0.632	24	A++	Z6.7 Social Security	0.724	98	A-
Z3 Human Resource	0.717	99	A-	Z7 Global Connectivity	0.450	90	A
Z3.1 Health	0.891	99	A-	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.721	57	A+	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.353	140	A--	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.200	45	A+
				Z7.5 Information Connectivity	0.353	97	A-
				Z7.6 Residents Connectivity	0.062	105	A-
				Z7.7 Enterprises Connectivity	0.312	75	A

PORTLAND CITY COMPETITIVENESS

Table A2.203 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	53.35
Area (Sq Km)	295.00
GDP per Capita (\$)	42428
GDP Growth Rate (%)	3.60



Table A2.204 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.476	52	A+	Z3.4 Status of Talent	0.392	90	A
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.547	29	A++
GDP	0.038	130	A--	Z3.6 Cost of Labor Force	0.611	93	A-
GDP per Capita	0.676	71	A	Z4 Hard Environment	0.758	25	A++
GDP per Square Kilometer	0.119	130	A--	Z4.1 Basic Elements	0.861	31	A+
Real Economic Growth Rate (5 Years)	0.232	300	B--	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.903	298	B--	Z4.3 The Ability for Innovation	0.565	52	A+
Labor Productivity	0.532	64	A	Z4.4 Market Scale	0.493	35	A+
Number of International Patents	0.312	60	A+	Z5 Soft Environment	0.783	63	A
Multinational Corporation Score	0.128	118	A-	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.764	65	A	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.650	85	A	Z5.4 Public Service	0.695	36	A+
Z1.2 Corporate System	0.800	57	A+	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.614	67	A	Z6 Living Environment	0.817	77	A
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.695	86	A
Z1.6 Enterprise Performance	0.800	20	A++	Z6.2 Environmental Quality	0.974	20	A++
Z2 Industry Structure	0.505	78	A	Z6.3 Shopping Environment	0.720	95	A-
Z2.1 Manufacturing Development	0.662	74	A	Z6.4 Dining & Restaurant	0.803	87	A
Z2.2 Service Industry Development	0.553	65	A	Z6.5 Housing	0.717	51	A+
Z2.3 Financial Sector Development	0.263	88	A	Z6.6 Culture and Entertainment	0.452	64	A
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.675	121	A--
Z3 Human Resource	0.765	56	A+	Z7 Global Connectivity	0.539	48	A+
Z3.1 Health	0.922	71	A	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.774	42	A+	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.417	96	A-	Z7.3 Water Transportation	0.352	39	A+
				Z7.4 Air Transportation	0.048	111	A-
				Z7.5 Information Connectivity	0.513	27	A++
				Z7.6 Residents Connectivity	0.115	81	A
				Z7.7 Enterprises Connectivity	0.331	64	A

PRAGUE CITY COMPETITIVENESS

Table A2.205 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	117.31
Area (Sq Km)	496.00
GDP per Capita (\$)	19163
GDP Growth Rate (%)	3.79



Table A2.206 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.328	161	B++	Z3.4 Status of Talent	0.737	5	A++
Nominal/Real Exchange Rate Ratio	0.095	263	B-	Z3.5 Education Development	0.440	88	A
GDP	0.038	132	A--	Z3.6 Cost of Labor Force	0.730	49	A+
GDP per Capita	0.303	194	B+	Z4 Hard Environment	0.534	129	A--
GDP per Square Kilometer	0.070	190	B+	Z4.1 Basic Elements	0.675	124	A--
Real Economic Growth Rate (5 Years)	0.239	290	B--	Z4.2 Financial Market	0.440	113	A-
Employment Rate	0.963	65	A	Z4.3 The Ability for Innovation	0.442	98	A-
Labor Productivity	0.224	203	B+	Z4.4 Market Scale	0.264	115	A-
Number of International Patents	0.011	260	B-	Z5 Soft Environment	0.629	113	A-
Multinational Corporation Score	0.333	40	A+	Z5.1 Market System	0.490	115	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.586	106	A-
Z1 Enterprise Quality	0.708	82	A	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.585	58	A+
Z1.2 Corporate System	0.650	97	A-	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.633	118	A-	Z5.6 Paying Taxes	0.704	102	A-
Z1.4 Enterprise Operation	0.578	73	A	Z6 Living Environment	0.808	88	A
Z1.5 Brand	0.600	70	A	Z6.1 Natural Environment	0.613	119	A-
Z1.6 Enterprise Performance	0.633	48	A+	Z6.2 Environmental Quality	0.933	70	A
Z2 Industry Structure	0.544	53	A+	Z6.3 Shopping Environment	0.740	80	A
Z2.1 Manufacturing Development	0.651	81	A	Z6.4 Dining & Restaurant	0.702	126	A--
Z2.2 Service Industry Development	0.719	14	A++	Z6.5 Housing	0.822	17	A++
Z2.3 Financial Sector Development	0.264	87	A	Z6.6 Culture and Entertainment	0.369	126	A--
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.805	76	A
Z3 Human Resource	0.870	5	A++	Z7 Global Connectivity	0.460	82	A
Z3.1 Health	0.966	20	A++	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.847	15	A++	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.447	73	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.086	87	A
				Z7.5 Information Connectivity	0.418	64	A
				Z7.6 Residents Connectivity	0.366	23	A++
				Z7.7 Enterprises Connectivity	0.350	49	A+

PUEBLA CITY COMPETITIVENESS

Table A2.207 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	210.90
Area (Sq Km)	232.83
GDP per Capita (\$)	9548
GDP Growth Rate (%)	9.00



Table A2.208 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.262	226	B	Z3.4 Status of Talent	0.428	65	A
Nominal/Real Exchange Rate Ratio	0.081	270	B-	Z3.5 Education Development	0.495	47	A+
GDP	0.034	148	A--	Z3.6 Cost of Labor Force	0.853	20	A++
GDP per Capita	0.150	239	B	Z4 Hard Environment	0.554	116	A-
GDP per Square Kilometer	0.134	114	A-	Z4.1 Basic Elements	0.850	38	A+
Real Economic Growth Rate (5 Years)	0.417	126	A--	Z4.2 Financial Market	0.497	91	A-
Employment Rate	0.970	36	A+	Z4.3 The Ability for Innovation	0.356	126	A--
Labor Productivity	0.109	254	B-	Z4.4 Market Scale	0.187	137	A--
Number of International Patents	0.006	300	B--	Z5 Soft Environment	0.572	131	A--
Multinational Corporation Score	0.044	275	B--	Z5.1 Market System	0.466	125	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.664	92	A-
Z1 Enterprise Quality	0.457	143	A--	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.450	135	A--	Z5.4 Public Service	0.541	85	A
Z1.2 Corporate System	0.500	127	A--	Z5.5 Strategy and Experience	0.300	147	A--
Z1.3 Enterprise Management	0.700	98	A-	Z5.6 Paying Taxes	0.679	106	A-
Z1.4 Enterprise Operation	0.364	120	A-	Z6 Living Environment	0.780	117	A-
Z1.5 Brand	0.200	135	A--	Z6.1 Natural Environment	0.669	96	A-
Z1.6 Enterprise Performance	0.300	123	A--	Z6.2 Environmental Quality	0.723	117	A-
Z2 Industry Structure	0.396	123	A--	Z6.3 Shopping Environment	0.612	139	A--
Z2.1 Manufacturing Development	0.554	113	A-	Z6.4 Dining & Restaurant	0.835	68	A
Z2.2 Service Industry Development	0.420	113	A-	Z6.5 Housing	0.518	142	A--
Z2.3 Financial Sector Development	0.140	148	A--	Z6.6 Culture and Entertainment	0.512	32	A+
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.941	7	A++
Z3 Human Resource	0.772	47	A+	Z7 Global Connectivity	0.273	149	A--
Z3.1 Health	0.755	134	A--	Z7.1 Location Convenience	0.140	140	A--
Z3.2 Literacy Quality	0.590	119	A-	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.576	26	A++	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.002	140	A--
				Z7.5 Information Connectivity	0.366	91	A-
				Z7.6 Residents Connectivity	0.038	121	A--
				Z7.7 Enterprises Connectivity	0.233	129	A--

QINGDAO CITY COMPETITIVENESS

Table A2.209 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	265.00
Area (Sq Km)	1411.00
GDP per Capita (\$)	5759
GDP Growth Rate (%)	12.31

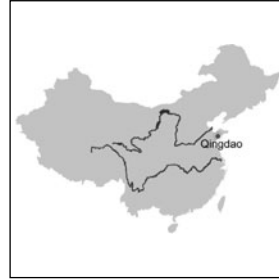


Table A2.210 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.240	252	B-	Z3.4 Status of Talent	0.073	139	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.410	103	A-
GDP	0.030	168	B++	Z3.6 Cost of Labor Force	0.824	30	A++
GDP per Capita	0.089	288	B--	Z4 Hard Environment	0.522	139	A--
GDP per Square Kilometer	0.020	298	B--	Z4.1 Basic Elements	0.809	64	A
Real Economic Growth Rate (5 Years)	0.530	70	A	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.924	226	B	Z4.3 The Ability for Innovation	0.330	139	A--
Labor Productivity	0.078	278	B--	Z4.4 Market Scale	0.215	130	A--
Number of International Patents	0.013	247	B-	Z5 Soft Environment	0.680	97	A-
Multinational Corporation Score	0.046	262	B-	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.478	141	A--	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.650	85	A	Z5.4 Public Service	0.431	134	A--
Z1.2 Corporate System	0.600	110	A-	Z5.5 Strategy and Experience	0.800	39	A+
Z1.3 Enterprise Management	0.600	124	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.377	114	A-	Z6 Living Environment	0.804	92	A-
Z1.5 Brand	0.300	123	A--	Z6.1 Natural Environment	0.750	67	A
Z1.6 Enterprise Performance	0.100	145	A--	Z6.2 Environmental Quality	0.599	130	A--
Z2 Industry Structure	0.345	140	A--	Z6.3 Shopping Environment	0.774	54	A+
Z2.1 Manufacturing Development	0.424	144	A--	Z6.4 Dining & Restaurant	0.847	53	A+
Z2.2 Service Industry Development	0.319	133	A--	Z6.5 Housing	0.676	86	A
Z2.3 Financial Sector Development	0.165	135	A--	Z6.6 Culture and Entertainment	0.476	46	A+
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.836	52	A+
Z3 Human Resource	0.679	128	A--	Z7 Global Connectivity	0.484	66	A
Z3.1 Health	0.930	58	A+	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.585	122	A--	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.428	88	A	Z7.3 Water Transportation	0.522	15	A++
				Z7.4 Air Transportation	0.034	122	A--
				Z7.5 Information Connectivity	0.320	110	A-
				Z7.6 Residents Connectivity	0.041	117	A-
				Z7.7 Enterprises Connectivity	0.241	119	A-

RIO DE JANEIRO CITY COMPETITIVENESS

Table A2.211 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	605.16
Area (Sq Km)	1250.00
GDP per Capita (\$)	5227
GDP Growth Rate (%)	6.13



Table A2.212 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.237	258	B-	Z3.4 Status of Talent	0.594	19	A++
Nominal/Real Exchange Rate Ratio	0.186	152	B++	Z3.5 Education Development	0.477	58	A+
GDP	0.054	82	A	Z3.6 Cost of Labor Force	0.786	39	A+
GDP per Capita	0.080	293	B--	Z4 Hard Environment	0.522	139	A--
GDP per Square Kilometer	0.039	244	B-	Z4.1 Basic Elements	0.730	103	A-
Real Economic Growth Rate (5 Years)	0.319	189	B+	Z4.2 Financial Market	0.242	149	A--
Employment Rate	0.834	419	C-	Z4.3 The Ability for Innovation	0.470	93	A-
Labor Productivity	0.045	358	C+	Z4.4 Market Scale	0.337	98	A-
Number of International Patents	0.040	181	B+	Z5 Soft Environment	0.502	147	A--
Multinational Corporation Score	0.172	87	A	Z5.1 Market System	0.472	119	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.580	109	A-
Z1 Enterprise Quality	0.790	56	A+	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.650	85	A	Z5.4 Public Service	0.143	149	A--
Z1.2 Corporate System	0.650	97	A-	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.700	98	A-	Z5.6 Paying Taxes	0.472	148	A--
Z1.4 Enterprise Operation	0.510	86	A	Z6 Living Environment	0.780	117	A-
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.767	65	A
Z1.6 Enterprise Performance	0.933	5	A++	Z6.2 Environmental Quality	0.831	101	A-
Z2 Industry Structure	0.500	80	A	Z6.3 Shopping Environment	0.666	124	A--
Z2.1 Manufacturing Development	0.701	49	A+	Z6.4 Dining & Restaurant	0.777	97	A-
Z2.2 Service Industry Development	0.570	57	A+	Z6.5 Housing	0.609	125	A--
Z2.3 Financial Sector Development	0.194	119	A-	Z6.6 Culture and Entertainment	0.417	93	A-
Z2.4 High-Tech Industry Development	0.520	102	A-	Z6.7 Social Security	0.744	90	A
Z3 Human Resource	0.809	19	A++	Z7 Global Connectivity	0.484	66	A
Z3.1 Health	0.678	140	A--	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.677	72	A	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.663	14	A++	Z7.3 Water Transportation	0.403	29	A++
				Z7.4 Air Transportation	0.071	95	A-
				Z7.5 Information Connectivity	0.427	60	A+
				Z7.6 Residents Connectivity	0.037	122	A--
				Z7.7 Enterprises Connectivity	0.272	99	A-

ROME CITY COMPETITIVENESS

Table A2.213 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	255.39
Area (Sq Km)	1500.00
GDP per Capita (\$)	35443
GDP Growth Rate (%)	0.75



Table A2.214 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.407	96	A-	Z3.4 Status of Talent	0.354	101	A-
Nominal/Real Exchange Rate Ratio	0.034	340	C+	Z3.5 Education Development	0.437	90	A
GDP	0.155	20	A++	Z3.6 Cost of Labor Force	0.534	115	A-
GDP per Capita	0.564	121	A--	Z4 Hard Environment	0.654	77	A
GDP per Square Kilometer	0.094	164	B++	Z4.1 Basic Elements	0.681	121	A--
Real Economic Growth Rate (5 Years)	0.135	462	D++	Z4.2 Financial Market	0.462	105	A-
Employment Rate	0.909	283	B--	Z4.3 The Ability for Innovation	0.636	28	A++
Labor Productivity	0.437	113	A-	Z4.4 Market Scale	0.451	56	A+
Number of International Patents	0.092	139	A--	Z5 Soft Environment	0.707	92	A-
Multinational Corporation Score	0.348	36	A+	Z5.1 Market System	0.368	140	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.569	114	A-
Z1 Enterprise Quality	0.646	97	A-	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.600	100	A-	Z5.4 Public Service	0.540	86	A
Z1.2 Corporate System	0.600	110	A-	Z5.5 Strategy and Experience	0.800	39	A+
Z1.3 Enterprise Management	0.867	61	A	Z5.6 Paying Taxes	0.719	98	A-
Z1.4 Enterprise Operation	0.720	31	A+	Z6 Living Environment	0.948	6	A++
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.883	16	A++
Z1.6 Enterprise Performance	0.367	109	A-	Z6.2 Environmental Quality	0.922	77	A
Z2 Industry Structure	0.591	38	A+	Z6.3 Shopping Environment	0.989	2	A++
Z2.1 Manufacturing Development	0.785	15	A++	Z6.4 Dining & Restaurant	0.705	125	A--
Z2.2 Service Industry Development	0.585	50	A+	Z6.5 Housing	0.672	88	A
Z2.3 Financial Sector Development	0.386	49	A+	Z6.6 Culture and Entertainment	0.869	2	A++
Z2.4 High-Tech Industry Development	0.586	40	A+	Z6.7 Social Security	0.808	75	A
Z3 Human Resource	0.758	62	A	Z7 Global Connectivity	0.564	35	A+
Z3.1 Health	0.953	28	A++	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.854	13	A++	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.498	47	A+	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.385	11	A++
				Z7.5 Information Connectivity	0.609	17	A++
				Z7.6 Residents Connectivity	0.374	21	A++
				Z7.7 Enterprises Connectivity	0.371	45	A+

ROTTERDAM CITY COMPETITIVENESS

Table A2.215 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	59.64
Area (Sq Km)	319.35
GDP per Capita (\$)	42027
GDP Growth Rate (%)	0.83



Table A2.216 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.428	81	A	Z3.4 Status of Talent	0.491	32	A+
Nominal/Real Exchange Rate Ratio	0.021	442	C--	Z3.5 Education Development	0.358	137	A--
GDP	0.043	119	A-	Z3.6 Cost of Labor Force	0.559	107	A-
GDP per Capita	0.669	74	A	Z4 Hard Environment	0.685	59	A+
GDP per Square Kilometer	0.122	126	A--	Z4.1 Basic Elements	0.709	111	A-
Real Economic Growth Rate (5 Years)	0.138	455	D++	Z4.2 Financial Market	0.641	51	A+
Employment Rate	0.877	368	C	Z4.3 The Ability for Innovation	0.550	56	A+
Labor Productivity	0.652	24	A++	Z4.4 Market Scale	0.436	71	A
Number of International Patents	0.326	50	A+	Z5 Soft Environment	0.748	77	A
Multinational Corporation Score	0.116	129	A--	Z5.1 Market System	0.563	98	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.724	84	A
Z1 Enterprise Quality	0.681	90	A	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.577	67	A
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.767	87	A	Z5.6 Paying Taxes	0.854	21	A++
Z1.4 Enterprise Operation	0.709	34	A+	Z6 Living Environment	0.863	26	A++
Z1.5 Brand	0.600	70	A	Z6.1 Natural Environment	0.690	88	A
Z1.6 Enterprise Performance	0.167	139	A--	Z6.2 Environmental Quality	0.919	80	A
Z2 Industry Structure	0.477	96	A-	Z6.3 Shopping Environment	0.913	12	A++
Z2.1 Manufacturing Development	0.659	77	A	Z6.4 Dining & Restaurant	0.825	74	A
Z2.2 Service Industry Development	0.534	72	A	Z6.5 Housing	0.817	18	A++
Z2.3 Financial Sector Development	0.174	131	A--	Z6.6 Culture and Entertainment	0.548	21	A++
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.611	137	A--
Z3 Human Resource	0.727	89	A	Z7 Global Connectivity	0.757	7	A++
Z3.1 Health	0.946	38	A+	Z7.1 Location Convenience	1.000	1	A++
Z3.2 Literacy Quality	0.780	40	A+	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.346	143	A--	Z7.3 Water Transportation	0.815	3	A++
				Z7.4 Air Transportation	0.011	136	A--
				Z7.5 Information Connectivity	0.410	66	A
				Z7.6 Residents Connectivity	0.581	7	A++
				Z7.7 Enterprises Connectivity	0.277	94	A-

SACRAMENTO CITY COMPETITIVENESS

Table A2.217 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	45.17
Area (Sq Km)	252.00
GDP per Capita (\$)	45 368
GDP Growth Rate (%)	4.68



Table A2.218 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.414	91	A-	Z3.4 Status of Talent	0.350	102	A-
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.428	94	A-
GDP	0.035	147	A--	Z3.6 Cost of Labor Force	0.545	112	A-
GDP per Capita	0.723	43	A+	Z4 Hard Environment	0.733	38	A+
GDP per Square Kilometer	0.126	121	A--	Z4.1 Basic Elements	0.774	82	A
Real Economic Growth Rate (5 Years)	0.269	242	B-	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.911	275	B--	Z4.3 The Ability for Innovation	0.502	78	A
Labor Productivity	0.619	36	A+	Z4.4 Market Scale	0.559	22	A++
Number of International Patents	0.069	157	B++	Z5 Soft Environment	0.809	54	A+
Multinational Corporation Score	0.081	180	B++	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.627	100	A-	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.450	135	A--	Z5.4 Public Service	0.843	8	A++
Z1.2 Corporate System	0.800	57	A+	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.598	69	A	Z6 Living Environment	0.884	18	A++
Z1.5 Brand	0.600	70	A	Z6.1 Natural Environment	0.770	64	A
Z1.6 Enterprise Performance	0.067	149	A--	Z6.2 Environmental Quality	1.000	1	A++
Z2 Industry Structure	0.512	75	A	Z6.3 Shopping Environment	0.709	102	A-
Z2.1 Manufacturing Development	0.718	45	A+	Z6.4 Dining & Restaurant	0.907	21	A++
Z2.2 Service Industry Development	0.522	82	A	Z6.5 Housing	0.837	15	A++
Z2.3 Financial Sector Development	0.203	115	A-	Z6.6 Culture and Entertainment	0.536	24	A++
Z2.4 High-Tech Industry Development	0.586	40	A+	Z6.7 Social Security	0.696	107	A-
Z3 Human Resource	0.694	118	A-	Z7 Global Connectivity	0.411	107	A-
Z3.1 Health	0.929	60	A+	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.695	66	A	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.378	123	A--	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.100	81	A
				Z7.5 Information Connectivity	0.265	131	A--
				Z7.6 Residents Connectivity	0.179	64	A
				Z7.7 Enterprises Connectivity	0.315	72	A

ST LOUIS CITY COMPETITIVENESS

Table A2.219 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	35.26
Area (Sq Km)	159.00
GDP per Capita (\$)	39292
GDP Growth Rate (%)	1.53



Table A2.220 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.427	82	A	Z3.4 Status of Talent	0.410	82	A
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.498	44	A+
GDP	0.023	210	B+	Z3.6 Cost of Labor Force	0.622	85	A
GDP per Capita	0.626	95	A-	Z4 Hard Environment	0.789	16	A++
GDP per Square Kilometer	0.135	110	A-	Z4.1 Basic Elements	0.877	19	A++
Real Economic Growth Rate (5 Years)	0.161	413	C-	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.850	406	C-	Z4.3 The Ability for Innovation	0.711	14	A++
Labor Productivity	0.589	46	A+	Z4.4 Market Scale	0.438	68	A
Number of International Patents	0.338	40	A+	Z5 Soft Environment	0.815	53	A+
Multinational Corporation Score	0.097	159	B++	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.888	22	A++	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.900	14	A++	Z5.4 Public Service	0.776	26	A++
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.967	12	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.813	15	A++	Z6 Living Environment	0.784	116	A-
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.579	130	A--
Z1.6 Enterprise Performance	0.500	81	A	Z6.2 Environmental Quality	0.975	18	A++
Z2 Industry Structure	0.487	90	A	Z6.3 Shopping Environment	0.709	102	A-
Z2.1 Manufacturing Development	0.590	105	A-	Z6.4 Dining & Restaurant	0.859	47	A+
Z2.2 Service Industry Development	0.502	90	A	Z6.5 Housing	0.707	57	A+
Z2.3 Financial Sector Development	0.248	96	A-	Z6.6 Culture and Entertainment	0.476	46	A+
Z2.4 High-Tech Industry Development	0.591	34	A+	Z6.7 Social Security	0.531	142	A--
Z3 Human Resource	0.716	103	A-	Z7 Global Connectivity	0.400	111	A-
Z3.1 Health	0.880	115	A-	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.661	82	A	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.358	137	A--	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.265	28	A++
				Z7.5 Information Connectivity	0.363	92	A-
				Z7.6 Residents Connectivity	0.028	128	A--
				Z7.7 Enterprises Connectivity	0.293	83	A

ST PETERSBURG CITY COMPETITIVENESS

Table A2.221 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	460.00
Area (Sq Km)	606.00
GDP per Capita (\$)	5672
GDP Growth Rate (%)	10.53



Table A2.222 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.331	154	B++	Z3.4 Status of Talent	0.568	24	A++
Nominal/Real Exchange Rate Ratio	0.148	189	B+	Z3.5 Education Development	0.439	89	A
GDP	0.044	114	A-	Z3.6 Cost of Labor Force	0.679	59	A+
GDP per Capita	0.087	289	B--	Z4 Hard Environment	0.469	149	A--
GDP per Square Kilometer	0.067	196	B+	Z4.1 Basic Elements	0.695	116	A-
Real Economic Growth Rate (5 Years)	0.469	90	A	Z4.2 Financial Market	0.282	146	A--
Employment Rate	0.981	16	A++	Z4.3 The Ability for Innovation	0.406	111	A-
Labor Productivity	0.059	320	C++	Z4.4 Market Scale	0.217	127	A--
Number of International Patents	0.173	96	A-	Z5 Soft Environment	0.519	146	A--
Multinational Corporation Score	0.139	106	A-	Z5.1 Market System	0.380	137	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.618	100	A-
Z1 Enterprise Quality	0.627	100	A-	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.500	126	A--	Z5.4 Public Service	0.244	148	A--
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	0.400	142	A--
Z1.3 Enterprise Management	0.867	61	A	Z5.6 Paying Taxes	0.617	137	A--
Z1.4 Enterprise Operation	0.311	130	A--	Z6 Living Environment	0.694	142	A--
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.426	144	A--
Z1.6 Enterprise Performance	0.567	62	A	Z6.2 Environmental Quality	0.858	98	A-
Z2 Industry Structure	0.453	109	A-	Z6.3 Shopping Environment	0.639	136	A--
Z2.1 Manufacturing Development	0.590	105	A-	Z6.4 Dining & Restaurant	0.694	130	A--
Z2.2 Service Industry Development	0.507	86	A	Z6.5 Housing	0.573	133	A--
Z2.3 Financial Sector Development	0.240	98	A-	Z6.6 Culture and Entertainment	0.726	7	A++
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.362	150	A--
Z3 Human Resource	0.766	54	A+	Z7 Global Connectivity	0.425	100	A-
Z3.1 Health	0.842	125	A--	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.520	142	A--	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.618	20	A++	Z7.3 Water Transportation	0.347	43	A+
				Z7.4 Air Transportation	0.021	129	A--
				Z7.5 Information Connectivity	0.355	95	A-
				Z7.6 Residents Connectivity	0.072	96	A-
				Z7.7 Enterprises Connectivity	0.292	85	A

SAN ANTONIO CITY COMPETITIVENESS

Table A2.223 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	126.36
Area (Sq Km)	788.70
GDP per Capita (\$)	40427
GDP Growth Rate (%)	2.55



Table A2.224 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.422	86	A	Z3.4 Status of Talent	0.266	115	A-
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.457	79	A
GDP	0.087	49	A+	Z3.6 Cost of Labor Force	0.687	56	A+
GDP per Capita	0.644	86	A	Z4 Hard Environment	0.749	33	A+
GDP per Square Kilometer	0.101	154	B++	Z4.1 Basic Elements	0.863	30	A++
Real Economic Growth Rate (5 Years)	0.196	361	C	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.917	252	B-	Z4.3 The Ability for Innovation	0.598	39	A+
Labor Productivity	0.591	43	A+	Z4.4 Market Scale	0.427	75	A
Number of International Patents	0.255	76	A	Z5 Soft Environment	0.818	50	A+
Multinational Corporation Score	0.054	237	B	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.882	24	A++	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.750	52	A+	Z5.4 Public Service	0.788	17	A++
Z1.2 Corporate System	0.850	41	A+	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.814	14	A++	Z6 Living Environment	0.845	45	A+
Z1.5 Brand	1.000	1	A++	Z6.1 Natural Environment	0.857	28	A++
Z1.6 Enterprise Performance	0.500	81	A	Z6.2 Environmental Quality	0.962	32	A+
Z2 Industry Structure	0.474	99	A-	Z6.3 Shopping Environment	0.666	124	A--
Z2.1 Manufacturing Development	0.670	69	A	Z6.4 Dining & Restaurant	0.919	17	A++
Z2.2 Service Industry Development	0.422	112	A-	Z6.5 Housing	0.736	36	A+
Z2.3 Financial Sector Development	0.263	88	A	Z6.6 Culture and Entertainment	0.381	120	A-
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.691	109	A-
Z3 Human Resource	0.703	113	A-	Z7 Global Connectivity	0.473	72	A
Z3.1 Health	0.904	89	A	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.675	74	A	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.377	124	A--	Z7.3 Water Transportation	0.284	61	A
				Z7.4 Air Transportation	0.230	38	A+
				Z7.5 Information Connectivity	0.303	118	A-
				Z7.6 Residents Connectivity	0.092	88	A
				Z7.7 Enterprises Connectivity	0.383	42	A+

SAN DIEGO CITY COMPETITIVENESS

Table A2.225 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	125.73
Area (Sq Km)	521.80
GDP per Capita (\$)	49 165
GDP Growth Rate (%)	3.64



Table A2.226 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.588	14	A++	Z3.4 Status of Talent	0.372	97	A-
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.455	82	A
GDP	0.105	34	A+	Z3.6 Cost of Labor Force	0.619	87	A
GDP per Capita	0.784	25	A++	Z4 Hard Environment	0.787	17	A++
GDP per Square Kilometer	0.184	73	A	Z4.1 Basic Elements	0.723	106	A-
Real Economic Growth Rate (5 Years)	0.234	298	B--	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.931	197	B+	Z4.3 The Ability for Innovation	0.742	12	A++
Labor Productivity	0.660	21	A++	Z4.4 Market Scale	0.551	26	A++
Number of International Patents	0.569	8	A++	Z5 Soft Environment	0.834	42	A+
Multinational Corporation Score	0.128	118	A-	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.894	17	A++	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.778	25	A++
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	0.800	39	A+
Z1.3 Enterprise Management	0.967	12	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.849	9	A++	Z6 Living Environment	0.797	102	A-
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.836	38	A+
Z1.6 Enterprise Performance	0.700	35	A+	Z6.2 Environmental Quality	0.966	31	A+
Z2 Industry Structure	0.521	70	A	Z6.3 Shopping Environment	0.677	122	A--
Z2.1 Manufacturing Development	0.670	69	A	Z6.4 Dining & Restaurant	0.716	120	A-
Z2.2 Service Industry Development	0.488	93	A-	Z6.5 Housing	0.621	121	A--
Z2.3 Financial Sector Development	0.317	65	A	Z6.6 Culture and Entertainment	0.333	135	A--
Z2.4 High-Tech Industry Development	0.591	34	A+	Z6.7 Social Security	0.764	89	A
Z3 Human Resource	0.746	72	A	Z7 Global Connectivity	0.513	58	A+
Z3.1 Health	0.929	60	A+	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.791	37	A+	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.406	108	A-	Z7.3 Water Transportation	0.295	58	A+
				Z7.4 Air Transportation	0.134	63	A
				Z7.5 Information Connectivity	0.475	43	A+
				Z7.6 Residents Connectivity	0.234	48	A+
				Z7.7 Enterprises Connectivity	0.425	30	A++

SAN FRANCISCO CITY COMPETITIVENESS

Table A2.227 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	74.10
Area (Sq Km)	120.20
GDP per Capita (\$)	52905
GDP Growth Rate (%)	1.33



Table A2.228 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.642	9	A++	Z3.4 Status of Talent	0.446	49	A+
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.555	24	A++
GDP	0.067	63	A	Z3.6 Cost of Labor Force	0.415	143	A--
GDP per Capita	0.844	15	A++	Z4 Hard Environment	0.873	4	A++
GDP per Square Kilometer	0.507	6	A++	Z4.1 Basic Elements	0.736	100	A-
Real Economic Growth Rate (5 Years)	0.155	428	C--	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.920	244	B-	Z4.3 The Ability for Innovation	0.855	6	A++
Labor Productivity	0.620	35	A+	Z4.4 Market Scale	0.720	4	A++
Number of International Patents	0.449	17	A++	Z5 Soft Environment	0.924	5	A++
Multinational Corporation Score	0.344	38	A+	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.940	3	A++	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	1.000	1	A++	Z5.4 Public Service	0.775	27	A++
Z1.2 Corporate System	0.950	8	A++	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	1.000	1	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.752	26	A++	Z6 Living Environment	0.826	68	A
Z1.5 Brand	1.000	1	A++	Z6.1 Natural Environment	0.772	63	A
Z1.6 Enterprise Performance	0.467	94	A-	Z6.2 Environmental Quality	0.993	2	A++
Z2 Industry Structure	0.627	25	A++	Z6.3 Shopping Environment	0.764	65	A
Z2.1 Manufacturing Development	0.698	52	A+	Z6.4 Dining & Restaurant	0.726	116	A-
Z2.2 Service Industry Development	0.633	36	A+	Z6.5 Housing	0.655	102	A-
Z2.3 Financial Sector Development	0.563	18	A++	Z6.6 Culture and Entertainment	0.452	64	A
Z2.4 High-Tech Industry Development	0.591	34	A+	Z6.7 Social Security	0.733	92	A-
Z3 Human Resource	0.766	54	A+	Z7 Global Connectivity	0.601	30	A++
Z3.1 Health	0.929	60	A+	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.875	8	A++	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.449	69	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.283	24	A++
				Z7.5 Information Connectivity	0.585	19	A++
				Z7.6 Residents Connectivity	0.507	12	A++
				Z7.7 Enterprises Connectivity	0.516	13	A++

SAN JOSE CITY COMPETITIVENESS

Table A2.229 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	91.57
Area (Sq Km)	438.20
GDP per Capita (\$)	52991
GDP Growth Rate (%)	0.91



Table A2.230 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.489	46	A+	Z3.4 Status of Talent	0.990	2	A++
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.379	122	A--
GDP	0.083	52	A+	Z3.6 Cost of Labor Force	0.432	140	A--
GDP per Capita	0.845	14	A++	Z4 Hard Environment	0.819	9	A++
GDP per Square Kilometer	0.172	83	A	Z4.1 Basic Elements	0.749	96	A-
Real Economic Growth Rate (5 Years)	0.140	450	C--	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.911	275	B--	Z4.3 The Ability for Innovation	0.713	13	A++
Labor Productivity	0.721	9	A++	Z4.4 Market Scale	0.665	7	A++
Number of International Patents	0.524	9	A++	Z5 Soft Environment	0.894	15	A++
Multinational Corporation Score	0.064	211	B	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.923	9	A++	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.807	12	A++
Z1.2 Corporate System	0.950	8	A++	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.822	13	A++	Z6 Living Environment	0.836	53	A+
Z1.5 Brand	1.000	1	A++	Z6.1 Natural Environment	0.747	71	A
Z1.6 Enterprise Performance	0.567	62	A	Z6.2 Environmental Quality	0.980	11	A++
Z2 Industry Structure	0.526	67	A	Z6.3 Shopping Environment	0.709	102	A-
Z2.1 Manufacturing Development	0.675	65	A	Z6.4 Dining & Restaurant	0.910	20	A++
Z2.2 Service Industry Development	0.488	93	A-	Z6.5 Housing	0.595	131	A--
Z2.3 Financial Sector Development	0.190	122	A--	Z6.6 Culture and Entertainment	0.417	93	A-
Z2.4 High-Tech Industry Development	0.730	5	A++	Z6.7 Social Security	0.795	80	A
Z3 Human Resource	0.811	17	A++	Z7 Global Connectivity	0.539	48	A+
Z3.1 Health	0.929	60	A+	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.760	43	A+	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.395	115	A-	Z7.3 Water Transportation	0.251	68	A
				Z7.4 Air Transportation	0.328	16	A++
				Z7.5 Information Connectivity	0.320	110	A-
				Z7.6 Residents Connectivity	0.311	31	A+
				Z7.7 Enterprises Connectivity	0.341	57	A+

SANTIAGO CITY COMPETITIVENESS

Table A2.231 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	652.79
Area (Sq Km)	15403.20
GDP per Capita (\$)	7494
GDP Growth Rate (%)	5.53



Table A2.232 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.337	150	A--	Z3.4 Status of Talent	0.408	84	A
Nominal/Real Exchange Rate Ratio	0.124	242	B-	Z3.5 Education Development	0.525	32	A+
GDP	0.083	51	A+	Z3.6 Cost of Labor Force	0.817	32	A+
GDP per Capita	0.117	254	B-	Z4 Hard Environment	0.694	56	A+
GDP per Square Kilometer	0.118	131	A--	Z4.1 Basic Elements	0.819	56	A+
Real Economic Growth Rate (5 Years)	0.298	202	B+	Z4.2 Financial Market	0.544	71	A
Employment Rate	0.902	302	C++	Z4.3 The Ability for Innovation	0.615	34	A+
Labor Productivity	0.110	252	B-	Z4.4 Market Scale	0.391	86	A
Number of International Patents	0.064	161	B++	Z5 Soft Environment	0.724	85	A
Multinational Corporation Score	0.292	49	A+	Z5.1 Market System	0.584	94	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.743	73	A
Z1 Enterprise Quality	0.561	122	A--	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.600	100	A-	Z5.4 Public Service	0.536	90	A
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.700	98	A-	Z5.6 Paying Taxes	0.825	28	A++
Z1.4 Enterprise Operation	0.516	83	A	Z6 Living Environment	0.816	80	A
Z1.5 Brand	0.200	135	A--	Z6.1 Natural Environment	0.709	83	A
Z1.6 Enterprise Performance	0.367	109	A-	Z6.2 Environmental Quality	0.753	112	A-
Z2 Industry Structure	0.539	59	A+	Z6.3 Shopping Environment	0.720	95	A-
Z2.1 Manufacturing Development	0.598	101	A-	Z6.4 Dining & Restaurant	0.830	70	A
Z2.2 Service Industry Development	0.682	23	A++	Z6.5 Housing	0.701	65	A
Z2.3 Financial Sector Development	0.467	32	A+	Z6.6 Culture and Entertainment	0.464	53	A+
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.856	36	A+
Z3 Human Resource	0.782	37	A+	Z7 Global Connectivity	0.406	109	A-
Z3.1 Health	0.889	102	A-	Z7.1 Location Convenience	0.288	123	A--
Z3.2 Literacy Quality	0.588	120	A-	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.516	41	A+	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.050	109	A-
				Z7.5 Information Connectivity	0.491	38	A+
				Z7.6 Residents Connectivity	0.176	65	A
				Z7.7 Enterprises Connectivity	0.293	83	A

SAO PAULO CITY COMPETITIVENESS

Table A2.233 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10 000)	1083.85
Area (Sq Km)	1493.00
GDP per Capita (\$)	6338
GDP Growth Rate (%)	5.17



Table A2.234 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.287	201	B+	Z3.4 Status of Talent	0.574	21	A++
Nominal/Real Exchange Rate Ratio	0.186	152	B++	Z3.5 Education Development	0.506	42	A+
GDP	0.117	29	A++	Z3.6 Cost of Labor Force	0.775	40	A+
GDP per Capita	0.098	276	B--	Z4 Hard Environment	0.486	148	A--
GDP per Square Kilometer	0.071	188	B+	Z4.1 Basic Elements	0.687	117	A-
Real Economic Growth Rate (5 Years)	0.286	217	B	Z4.2 Financial Market	0.244	148	A--
Employment Rate	0.798	441	C--	Z4.3 The Ability for Innovation	0.409	108	A-
Labor Productivity	0.045	355	C+	Z4.4 Market Scale	0.317	103	A-
Number of International Patents	0.030	202	B+	Z5 Soft Environment	0.501	148	A--
Multinational Corporation Score	0.412	25	A++	Z5.1 Market System	0.472	119	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.580	109	A-
Z1 Enterprise Quality	0.572	119	A-	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.650	85	A	Z5.4 Public Service	0.134	150	A--
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.867	61	A	Z5.6 Paying Taxes	0.472	148	A--
Z1.4 Enterprise Operation	0.429	108	A-	Z6 Living Environment	0.810	86	A
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.860	25	A++
Z1.6 Enterprise Performance	0.100	145	A--	Z6.2 Environmental Quality	0.777	106	A-
Z2 Industry Structure	0.563	45	A+	Z6.3 Shopping Environment	0.656	131	A--
Z2.1 Manufacturing Development	0.595	103	A-	Z6.4 Dining & Restaurant	0.893	32	A+
Z2.2 Service Industry Development	0.673	27	A++	Z6.5 Housing	0.552	138	A--
Z2.3 Financial Sector Development	0.439	38	A+	Z6.6 Culture and Entertainment	0.464	53	A+
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.794	81	A
Z3 Human Resource	0.885	3	A++	Z7 Global Connectivity	0.356	126	A--
Z3.1 Health	0.745	135	A--	Z7.1 Location Convenience	0.140	140	A--
Z3.2 Literacy Quality	0.636	97	A-	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	1.000	1	A++	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.153	58	A+
				Z7.5 Information Connectivity	0.381	86	A
				Z7.6 Residents Connectivity	0.029	127	A--
				Z7.7 Enterprises Connectivity	0.419	34	A+

SAPPORO CITY COMPETITIVENESS

Table A2.235 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	186.92
Area (Sq Km)	1121.12
GDP per Capita (\$)	30987
GDP Growth Rate (%)	0.36



Table A2.236 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.309	171	B++	Z3.4 Status of Talent	0.426	69	A
Nominal/Real Exchange Rate Ratio	0.017	448	C--	Z3.5 Education Development	0.344	144	A--
GDP	0.099	40	A+	Z3.6 Cost of Labor Force	0.533	118	A-
GDP per Capita	0.493	158	B++	Z4 Hard Environment	0.666	68	A
GDP per Square Kilometer	0.080	177	B++	Z4.1 Basic Elements	0.775	81	A
Real Economic Growth Rate (5 Years)	0.121	491	D+	Z4.2 Financial Market	0.704	8	A++
Employment Rate	0.934	187	B+	Z4.3 The Ability for Innovation	0.472	92	A-
Labor Productivity	0.352	167	B++	Z4.4 Market Scale	0.320	100	A-
Number of International Patents	0.106	131	A--	Z5 Soft Environment	0.715	88	A
Multinational Corporation Score	0.093	162	B++	Z5.1 Market System	0.589	85	A
Subentry Competitiveness				Z5.2 Market Regulation	0.736	74	A
Z1 Enterprise Quality	0.574	118	A-	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.550	110	A-	Z5.4 Public Service	0.525	100	A-
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.633	118	A-	Z5.6 Paying Taxes	0.785	79	A
Z1.4 Enterprise Operation	0.440	106	A-	Z6 Living Environment	0.843	46	A+
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.606	121	A--
Z1.6 Enterprise Performance	0.333	116	A-	Z6.2 Environmental Quality	0.932	71	A
Z2 Industry Structure	0.497	81	A	Z6.3 Shopping Environment	0.735	82	A
Z2.1 Manufacturing Development	0.644	86	A	Z6.4 Dining & Restaurant	0.861	46	A+
Z2.2 Service Industry Development	0.547	67	A	Z6.5 Housing	0.735	39	A+
Z2.3 Financial Sector Development	0.254	95	A-	Z6.6 Culture and Entertainment	0.464	53	A+
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.864	31	A+
Z3 Human Resource	0.749	69	A	Z7 Global Connectivity	0.372	119	A-
Z3.1 Health	0.981	8	A++	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.803	26	A++	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.502	46	A+	Z7.3 Water Transportation	0.236	69	A
				Z7.4 Air Transportation	0.123	69	A
				Z7.5 Information Connectivity	0.292	121	A--
				Z7.6 Residents Connectivity	0.020	131	A--
				Z7.7 Enterprises Connectivity	0.231	135	A--

SEATTLE CITY COMPETITIVENESS

Table A2.237 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	57.59
Area (Sq Km)	216.50
GDP per Capita (\$)	49887
GDP Growth Rate (%)	1.45



Table A2.238 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.508	37	A+	Z3.4 Status of Talent	0.429	62	A
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.479	51	A+
GDP	0.049	96	A-	Z3.6 Cost of Labor Force	0.562	106	A-
GDP per Capita	0.795	23	A++	Z4 Hard Environment	0.814	10	A++
GDP per Square Kilometer	0.206	63	A	Z4.1 Basic Elements	0.842	45	A+
Real Economic Growth Rate (5 Years)	0.159	415	C-	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.924	227	B	Z4.3 The Ability for Innovation	0.644	27	A++
Labor Productivity	0.574	51	A+	Z4.4 Market Scale	0.623	14	A++
Number of International Patents	0.350	35	A+	Z5 Soft Environment	0.909	9	A++
Multinational Corporation Score	0.178	82	A	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	1.000	1	A++	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	1.000	1	A++	Z5.4 Public Service	0.790	16	A++
Z1.2 Corporate System	1.000	1	A++	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.831	12	A++	Z6 Living Environment	0.799	98	A-
Z1.5 Brand	1.000	1	A++	Z6.1 Natural Environment	0.679	93	A-
Z1.6 Enterprise Performance	0.733	29	A++	Z6.2 Environmental Quality	0.976	17	A++
Z2 Industry Structure	0.598	35	A+	Z6.3 Shopping Environment	0.731	86	A
Z2.1 Manufacturing Development	0.759	26	A++	Z6.4 Dining & Restaurant	0.710	122	A--
Z2.2 Service Industry Development	0.599	47	A+	Z6.5 Housing	0.763	25	A++
Z2.3 Financial Sector Development	0.359	53	A+	Z6.6 Culture and Entertainment	0.405	106	A-
Z2.4 High-Tech Industry Development	0.653	14	A++	Z6.7 Social Security	0.662	126	A--
Z3 Human Resource	0.782	37	A+	Z7 Global Connectivity	0.642	23	A++
Z3.1 Health	0.928	65	A	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.898	5	A++	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.449	69	A	Z7.3 Water Transportation	0.636	8	A++
				Z7.4 Air Transportation	0.241	36	A+
				Z7.5 Information Connectivity	0.501	33	A+
				Z7.6 Residents Connectivity	0.172	66	A
				Z7.7 Enterprises Connectivity	0.411	37	A+

SENDAI CITY COMPETITIVENESS

Table A2.239 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	102.51
Area (Sq Km)	788.09
GDP per Capita (\$)	31408
GDP Growth Rate (%)	1.37



Table A2.240 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.305	179	B++	Z3.4 Status of Talent	0.426	69	A
Nominal/Real Exchange Rate Ratio	0.017	448	C--	Z3.5 Education Development	0.358	137	A--
GDP	0.055	78	A	Z3.6 Cost of Labor Force	0.524	121	A--
GDP per Capita	0.499	152	B++	Z4 Hard Environment	0.681	62	A
GDP per Square Kilometer	0.063	203	B+	Z4.1 Basic Elements	0.816	57	A+
Real Economic Growth Rate (5 Years)	0.156	426	C--	Z4.2 Financial Market	0.704	8	A++
Employment Rate	0.937	173	B++	Z4.3 The Ability for Innovation	0.485	88	A
Labor Productivity	0.356	165	B++	Z4.4 Market Scale	0.319	102	A-
Number of International Patents	0.175	95	A-	Z5 Soft Environment	0.713	91	A-
Multinational Corporation Score	0.035	299	B--	Z5.1 Market System	0.589	85	A
Subentry Competitiveness				Z5.2 Market Regulation	0.736	74	A
Z1 Enterprise Quality	0.634	98	A-	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.600	100	A-	Z5.4 Public Service	0.519	104	A-
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	1.000	1	A++	Z5.6 Paying Taxes	0.785	79	A
Z1.4 Enterprise Operation	0.485	95	A-	Z6 Living Environment	0.847	41	A+
Z1.5 Brand	0.600	70	A	Z6.1 Natural Environment	0.643	107	A-
Z1.6 Enterprise Performance	0.100	145	A--	Z6.2 Environmental Quality	0.950	45	A+
Z2 Industry Structure	0.480	93	A-	Z6.3 Shopping Environment	0.735	82	A
Z2.1 Manufacturing Development	0.644	86	A	Z6.4 Dining & Restaurant	0.881	39	A+
Z2.2 Service Industry Development	0.514	84	A	Z6.5 Housing	0.717	51	A+
Z2.3 Financial Sector Development	0.222	108	A-	Z6.6 Culture and Entertainment	0.429	82	A
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.868	28	A++
Z3 Human Resource	0.743	75	A	Z7 Global Connectivity	0.452	86	A
Z3.1 Health	0.981	8	A++	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.803	26	A++	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.468	59	A+	Z7.3 Water Transportation	0.314	52	A+
				Z7.4 Air Transportation	0.022	128	A--
				Z7.5 Information Connectivity	0.253	135	A--
				Z7.6 Residents Connectivity	0.070	97	A-
				Z7.7 Enterprises Connectivity	0.229	139	A--

SEOUL CITY COMPETITIVENESS

Table A2.241 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	1029.70
Area (Sq Km)	605.40
GDP per Capita (\$)	17150
GDP Growth Rate (%)	2.55



Table A2.242 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.617	12	A++	Z3.4 Status of Talent	0.472	39	A+
Nominal/Real Exchange Rate Ratio	0.068	293	B--	Z3.5 Education Development	0.707	7	A++
GDP	0.302	8	A++	Z3.6 Cost of Labor Force	0.432	140	A--
GDP per Capita	0.271	196	B+	Z4 Hard Environment	0.726	42	A+
GDP per Square Kilometer	0.453	11	A++	Z4.1 Basic Elements	0.787	77	A
Real Economic Growth Rate (5 Years)	0.196	359	C+	Z4.2 Financial Market	0.476	102	A-
Employment Rate	0.946	143	A--	Z4.3 The Ability for Innovation	0.610	35	A+
Labor Productivity	0.222	206	B+	Z4.4 Market Scale	0.602	16	A++
Number of International Patents	0.620	6	A++	Z5 Soft Environment	0.800	56	A+
Multinational Corporation Score	0.478	18	A++	Z5.1 Market System	0.558	104	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.633	97	A-
Z1 Enterprise Quality	0.889	21	A++	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.681	37	A+
Z1.2 Corporate System	0.800	57	A+	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	1.000	1	A++	Z5.6 Paying Taxes	0.634	134	A--
Z1.4 Enterprise Operation	0.652	57	A+	Z6 Living Environment	0.786	112	A-
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.671	95	A-
Z1.6 Enterprise Performance	0.733	29	A++	Z6.2 Environmental Quality	0.655	124	A--
Z2 Industry Structure	0.654	16	A++	Z6.3 Shopping Environment	0.749	74	A
Z2.1 Manufacturing Development	0.696	53	A+	Z6.4 Dining & Restaurant	0.742	108	A-
Z2.2 Service Industry Development	0.718	15	A++	Z6.5 Housing	0.666	91	A-
Z2.3 Financial Sector Development	0.480	29	A++	Z6.6 Culture and Entertainment	0.464	53	A+
Z2.4 High-Tech Industry Development	0.698	8	A++	Z6.7 Social Security	0.901	21	A++
Z3 Human Resource	0.837	9	A++	Z7 Global Connectivity	0.488	62	A
Z3.1 Health	0.953	28	A++	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.710	63	A	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.734	8	A++	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.248	35	A+
				Z7.5 Information Connectivity	0.383	82	A
				Z7.6 Residents Connectivity	0.062	105	A-
				Z7.7 Enterprises Connectivity	0.391	41	A+

SHANGHAI CITY COMPETITIVENESS

Table A2.243 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	1778.42
Area (Sq Km)	6543.00
GDP per Capita (\$)	6849
GDP Growth Rate (%)	11.90



Table A2.244 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.492	41	A+	Z3.4 Status of Talent	0.079	137	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.643	11	A++
GDP	0.189	12	A++	Z3.6 Cost of Labor Force	0.747	45	A+
GDP per Capita	0.106	265	B-	Z4 Hard Environment	0.714	48	A+
GDP per Square Kilometer	0.026	276	B--	Z4.1 Basic Elements	0.792	75	A
Real Economic Growth Rate (5 Years)	0.516	74	A	Z4.2 Financial Market	0.430	115	A-
Employment Rate	0.927	221	B	Z4.3 The Ability for Innovation	0.559	54	A+
Labor Productivity	0.091	268	B-	Z4.4 Market Scale	0.655	11	A++
Number of International Patents	0.326	47	A+	Z5 Soft Environment	0.718	87	A
Multinational Corporation Score	0.561	8	A++	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.683	89	A	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.650	85	A	Z5.4 Public Service	0.440	124	A--
Z1.2 Corporate System	0.500	127	A--	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.633	118	A-	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.507	89	A	Z6 Living Environment	0.842	48	A+
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.835	39	A+
Z1.6 Enterprise Performance	0.667	43	A+	Z6.2 Environmental Quality	0.685	120	A-
Z2 Industry Structure	0.608	29	A++	Z6.3 Shopping Environment	0.785	50	A+
Z2.1 Manufacturing Development	0.643	89	A	Z6.4 Dining & Restaurant	0.983	4	A++
Z2.2 Service Industry Development	0.677	25	A++	Z6.5 Housing	0.662	97	A-
Z2.3 Financial Sector Development	0.505	26	A++	Z6.6 Culture and Entertainment	0.405	106	A-
Z2.4 High-Tech Industry Development	0.586	40	A+	Z6.7 Social Security	0.838	48	A+
Z3 Human Resource	0.785	36	A+	Z7 Global Connectivity	0.686	14	A++
Z3.1 Health	0.961	23	A++	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.619	102	A-	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.707	11	A++	Z7.3 Water Transportation	0.728	5	A++
				Z7.4 Air Transportation	0.221	39	A+
				Z7.5 Information Connectivity	0.509	29	A++
				Z7.6 Residents Connectivity	0.032	125	A--
				Z7.7 Enterprises Connectivity	0.461	22	A++

SHENYANG CITY COMPETITIVENESS

Table A2.245 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10 000)	495.89
Area (Sq Km)	3495.00
GDP per Capita (\$)	4287
GDP Growth Rate (%)	14.68

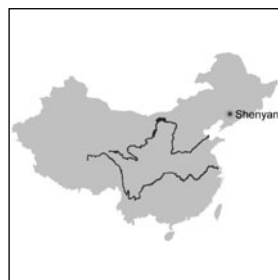


Table A2.246 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.237	257	B-	Z3.4 Status of Talent	0.043	150	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.423	96	A-
GDP	0.038	133	A--	Z3.6 Cost of Labor Force	0.897	10	A++
GDP per Capita	0.065	321	C++	Z4 Hard Environment	0.530	133	A--
GDP per Square Kilometer	0.010	374	C	Z4.1 Basic Elements	0.804	68	A
Real Economic Growth Rate (5 Years)	0.611	34	A+	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.875	376	C	Z4.3 The Ability for Innovation	0.336	135	A--
Labor Productivity	0.069	294	B--	Z4.4 Market Scale	0.242	122	A--
Number of International Patents	0.014	243	B-	Z5 Soft Environment	0.572	131	A--
Multinational Corporation Score	0.054	237	B	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.622	104	A-	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.500	126	A--	Z5.4 Public Service	0.439	127	A--
Z1.2 Corporate System	0.600	110	A-	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.633	118	A-	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.517	82	A	Z6 Living Environment	0.682	144	A--
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.547	135	A--
Z1.6 Enterprise Performance	0.667	43	A+	Z6.2 Environmental Quality	0.536	140	A--
Z2 Industry Structure	0.360	137	A--	Z6.3 Shopping Environment	0.774	54	A+
Z2.1 Manufacturing Development	0.527	120	A-	Z6.4 Dining & Restaurant	0.670	133	A--
Z2.2 Service Industry Development	0.306	138	A--	Z6.5 Housing	0.653	106	A-
Z2.3 Financial Sector Development	0.203	115	A-	Z6.6 Culture and Entertainment	0.190	150	A--
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.834	56	A+
Z3 Human Resource	0.683	126	A--	Z7 Global Connectivity	0.303	141	A--
Z3.1 Health	0.856	124	A--	Z7.1 Location Convenience	0.216	128	A--
Z3.2 Literacy Quality	0.602	112	A-	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.449	69	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.028	125	A--
				Z7.5 Information Connectivity	0.255	133	A--
				Z7.6 Residents Connectivity	0.007	145	A--
				Z7.7 Enterprises Connectivity	0.233	129	A--

SHENZHEN CITY COMPETITIVENESS

Table A2.247 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	827.75
Area (Sq Km)	1952.00
GDP per Capita (\$)	7312
GDP Growth Rate (%)	16.64



Table A2.248 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.460	64	A	Z3.4 Status of Talent	0.106	123	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.385	114	A-
GDP	0.103	36	A+	Z3.6 Cost of Labor Force	0.803	36	A+
GDP per Capita	0.114	261	B-	Z4 Hard Environment	0.624	91	A-
GDP per Square Kilometer	0.048	227	B	Z4.1 Basic Elements	0.878	18	A++
Real Economic Growth Rate (5 Years)	0.678	19	A++	Z4.2 Financial Market	0.429	117	A-
Employment Rate	0.989	9	A++	Z4.3 The Ability for Innovation	0.410	107	A-
Labor Productivity	0.084	273	B--	Z4.4 Market Scale	0.411	81	A
Number of International Patents	0.356	33	A+	Z5 Soft Environment	0.661	103	A-
Multinational Corporation Score	0.145	102	A-	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.781	59	A+	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.850	23	A++	Z5.4 Public Service	0.426	136	A--
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.667	106	A-	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.674	46	A+	Z6 Living Environment	0.806	91	A-
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.834	43	A+
Z1.6 Enterprise Performance	0.700	35	A+	Z6.2 Environmental Quality	0.510	143	A--
Z2 Industry Structure	0.392	124	A--	Z6.3 Shopping Environment	0.807	37	A+
Z2.1 Manufacturing Development	0.445	142	A--	Z6.4 Dining & Restaurant	0.895	31	A+
Z2.2 Service Industry Development	0.427	109	A-	Z6.5 Housing	0.665	92	A-
Z2.3 Financial Sector Development	0.223	106	A-	Z6.6 Culture and Entertainment	0.429	82	A
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.832	61	A
Z3 Human Resource	0.694	118	A-	Z7 Global Connectivity	0.527	53	A+
Z3.1 Health	0.916	76	A	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.592	117	A-	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.519	40	A+	Z7.3 Water Transportation	0.772	4	A++
				Z7.4 Air Transportation	0.093	85	A
				Z7.5 Information Connectivity	0.428	59	A+
				Z7.6 Residents Connectivity	0.073	95	A-
				Z7.7 Enterprises Connectivity	0.274	96	A-

SINGAPORE CITY COMPETITIVENESS

Table A2.249 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	434.18
Area (Sq Km)	699.40
GDP per Capita (\$)	25 176
GDP Growth Rate (%)	7.02



Table A2.250 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.646	8	A++	Z3.4 Status of Talent	0.846	4	A++
Nominal/Real Exchange Rate Ratio	0.037	331	C+	Z3.5 Education Development	0.390	112	A-
GDP	0.187	14	A++	Z3.6 Cost of Labor Force	0.625	83	A
GDP per Capita	0.400	183	B+	Z4 Hard Environment	0.719	45	A+
GDP per Square Kilometer	0.243	52	A+	Z4.1 Basic Elements	0.847	40	A+
Real Economic Growth Rate (5 Years)	0.349	168	B++	Z4.2 Financial Market	0.583	66	A
Employment Rate	0.969	40	A+	Z4.3 The Ability for Innovation	0.656	26	A++
Labor Productivity	0.297	189	B+	Z4.4 Market Scale	0.367	91	A-
Number of International Patents	0.338	41	A+	Z5 Soft Environment	1.000	1	A++
Multinational Corporation Score	0.603	6	A++	Z5.1 Market System	1.000	1	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.877	8	A++
Z1 Enterprise Quality	0.752	67	A	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	0.750	52	A+	Z5.4 Public Service	0.631	48	A+
Z1.2 Corporate System	0.850	41	A+	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.867	61	A	Z5.6 Paying Taxes	1.000	1	A++
Z1.4 Enterprise Operation	0.666	50	A+	Z6 Living Environment	0.860	28	A++
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.744	74	A
Z1.6 Enterprise Performance	0.200	134	A--	Z6.2 Environmental Quality	0.910	85	A
Z2 Industry Structure	0.694	10	A++	Z6.3 Shopping Environment	0.762	68	A
Z2.1 Manufacturing Development	0.660	76	A	Z6.4 Dining & Restaurant	0.827	72	A
Z2.2 Service Industry Development	0.697	20	A++	Z6.5 Housing	0.695	70	A
Z2.3 Financial Sector Development	0.870	5	A++	Z6.6 Culture and Entertainment	0.417	93	A-
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.950	6	A++
Z3 Human Resource	0.881	4	A++	Z7 Global Connectivity	0.798	5	A++
Z3.1 Health	0.977	12	A++	Z7.1 Location Convenience	1.000	1	A++
Z3.2 Literacy Quality	0.818	22	A++	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.565	29	A++	Z7.3 Water Transportation	1.000	1	A++
				Z7.4 Air Transportation	0.209	42	A+
				Z7.5 Information Connectivity	0.774	4	A++
				Z7.6 Residents Connectivity	0.317	30	A++
				Z7.7 Enterprises Connectivity	0.416	36	A+

STOCKHOLM CITY COMPETITIVENESS

Table A2.251 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	76.50
Area (Sq Km)	209.00
GDP per Capita (\$)	52813
GDP Growth Rate (%)	2.43



Table A2.252 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.648	7	A++	Z3.4 Status of Talent	0.542	27	A++
Nominal/Real Exchange Rate Ratio	0.014	488	D+	Z3.5 Education Development	0.479	51	A+
GDP	0.069	60	A+	Z3.6 Cost of Labor Force	0.538	114	A-
GDP per Capita	0.842	16	A++	Z4 Hard Environment	0.711	49	A+
GDP per Square Kilometer	0.300	33	A+	Z4.1 Basic Elements	0.666	127	A--
Real Economic Growth Rate (5 Years)	0.192	369	C	Z4.2 Financial Market	0.553	68	A
Employment Rate	0.939	167	B++	Z4.3 The Ability for Innovation	0.769	11	A++
Labor Productivity	0.697	11	A++	Z4.4 Market Scale	0.436	71	A
Number of International Patents	0.512	10	A++	Z5 Soft Environment	0.882	18	A++
Multinational Corporation Score	0.366	32	A+	Z5.1 Market System	0.584	94	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.810	60	A+
Z1 Enterprise Quality	0.823	41	A+	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.602	54	A+
Z1.2 Corporate System	0.800	57	A+	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.862	19	A++
Z1.4 Enterprise Operation	0.789	17	A++	Z6 Living Environment	0.816	80	A
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.580	129	A--
Z1.6 Enterprise Performance	0.400	106	A-	Z6.2 Environmental Quality	0.935	65	A
Z2 Industry Structure	0.653	17	A++	Z6.3 Shopping Environment	0.870	20	A++
Z2.1 Manufacturing Development	0.758	27	A++	Z6.4 Dining & Restaurant	0.925	16	A++
Z2.2 Service Industry Development	0.671	28	A++	Z6.5 Housing	0.635	111	A-
Z2.3 Financial Sector Development	0.569	17	A++	Z6.6 Culture and Entertainment	0.571	17	A++
Z2.4 High-Tech Industry Development	0.591	34	A+	Z6.7 Social Security	0.515	144	A--
Z3 Human Resource	0.820	15	A++	Z7 Global Connectivity	0.563	36	A+
Z3.1 Health	0.974	15	A++	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	1.000	1	A++	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.394	116	A-	Z7.3 Water Transportation	0.297	55	A+
				Z7.4 Air Transportation	0.185	50	A+
				Z7.5 Information Connectivity	0.497	36	A+
				Z7.6 Residents Connectivity	0.265	42	A+
				Z7.7 Enterprises Connectivity	0.343	52	A+

SUZHOU CITY COMPETITIVENESS

Table A2.253 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	225.11
Area (Sq Km)	1650.00
GDP per Capita (\$)	6495
GDP Growth Rate (%)	16.44



Table A2.254 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.271	218	B	Z3.4 Status of Talent	0.083	135	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.356	141	A--
GDP	0.034	151	B++	Z3.6 Cost of Labor Force	0.862	16	A++
GDP per Capita	0.101	271	B--	Z4 Hard Environment	0.532	131	A--
GDP per Square Kilometer	0.019	302	C++	Z4.1 Basic Elements	0.833	49	A+
Real Economic Growth Rate (5 Years)	0.671	20	A++	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.910	280	B--	Z4.3 The Ability for Innovation	0.330	139	A--
Labor Productivity	0.090	269	B-	Z4.4 Market Scale	0.225	125	A--
Number of International Patents	0.017	232	B	Z5 Soft Environment	0.715	88	A
Multinational Corporation Score	0.046	262	B-	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.403	148	A--	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.400	144	A--	Z5.4 Public Service	0.424	138	A--
Z1.2 Corporate System	0.500	127	A--	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.600	124	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.316	129	A--	Z6 Living Environment	0.838	52	A+
Z1.5 Brand	0.200	135	A--	Z6.1 Natural Environment	0.887	13	A++
Z1.6 Enterprise Performance	0.200	134	A--	Z6.2 Environmental Quality	0.432	146	A--
Z2 Industry Structure	0.302	150	A--	Z6.3 Shopping Environment	0.807	37	A+
Z2.1 Manufacturing Development	0.359	147	A--	Z6.4 Dining & Restaurant	0.926	15	A++
Z2.2 Service Industry Development	0.260	147	A--	Z6.5 Housing	0.727	46	A+
Z2.3 Financial Sector Development	0.188	124	A--	Z6.6 Culture and Entertainment	0.548	21	A++
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.842	44	A+
Z3 Human Resource	0.673	133	A--	Z7 Global Connectivity	0.286	147	A--
Z3.1 Health	0.935	54	A+	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.577	125	A--	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.411	104	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.000	141	A--
				Z7.5 Information Connectivity	0.281	126	A--
				Z7.6 Residents Connectivity	0.067	100	A-
				Z7.7 Enterprises Connectivity	0.235	126	A--

SYDNEY CITY COMPETITIVENESS

Table A2.255 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	425.56
Area (Sq Km)	2400.00
GDP per Capita (\$)	40 346
GDP Growth Rate (%)	1.40



Table A2.256 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.520	31	A+	Z3.4 Status of Talent	0.423	76	A
Nominal/Real Exchange Rate Ratio	0.036	333	C+	Z3.5 Education Development	0.470	70	A
GDP	0.293	9	A++	Z3.6 Cost of Labor Force	0.502	123	A--
GDP per Capita	0.643	90	A	Z4 Hard Environment	0.710	50	A+
GDP per Square Kilometer	0.111	139	A--	Z4.1 Basic Elements	0.814	61	A
Real Economic Growth Rate (5 Years)	0.157	418	C-	Z4.2 Financial Market	0.497	91	A-
Employment Rate	0.950	132	A--	Z4.3 The Ability for Innovation	0.619	33	A+
Labor Productivity	0.503	82	A	Z4.4 Market Scale	0.492	36	A+
Number of International Patents	0.153	102	A-	Z5 Soft Environment	0.879	19	A++
Multinational Corporation Score	0.549	9	A++	Z5.1 Market System	0.639	50	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.812	57	A+
Z1 Enterprise Quality	0.806	46	A+	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	0.750	52	A+	Z5.4 Public Service	0.576	70	A
Z1.2 Corporate System	0.850	41	A+	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.800	79	A	Z5.6 Paying Taxes	0.818	35	A+
Z1.4 Enterprise Operation	0.763	23	A++	Z6 Living Environment	0.975	2	A++
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.976	2	A++
Z1.6 Enterprise Performance	0.367	109	A-	Z6.2 Environmental Quality	0.832	100	A-
Z2 Industry Structure	0.669	13	A++	Z6.3 Shopping Environment	0.905	15	A++
Z2.1 Manufacturing Development	0.618	94	A-	Z6.4 Dining & Restaurant	0.928	13	A++
Z2.2 Service Industry Development	0.731	12	A++	Z6.5 Housing	0.945	4	A++
Z2.3 Financial Sector Development	0.776	6	A++	Z6.6 Culture and Entertainment	0.512	32	A+
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.918	14	A++
Z3 Human Resource	0.777	43	A+	Z7 Global Connectivity	0.657	20	A++
Z3.1 Health	0.955	26	A++	Z7.1 Location Convenience	0.532	74	A
Z3.2 Literacy Quality	0.830	18	A++	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.541	33	A+	Z7.3 Water Transportation	0.430	23	A++
				Z7.4 Air Transportation	0.180	54	A+
				Z7.5 Information Connectivity	0.677	8	A++
				Z7.6 Residents Connectivity	0.268	41	A+
				Z7.7 Enterprises Connectivity	0.462	21	A++

TAIPEI CITY COMPETITIVENESS

Table A2.257 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	261.64
Area (Sq Km)	271.80
GDP per Capita (\$)	14212
GDP Growth Rate (%)	0.35



Table A2.258 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.381	112	A-	Z3.4 Status of Talent	0.158	122	A--
Nominal/Real Exchange Rate Ratio	0.118	247	B-	Z3.5 Education Development	0.620	15	A++
GDP	0.066	65	A	Z3.6 Cost of Labor Force	0.611	93	A-
GDP per Capita	0.224	207	B+	Z4 Hard Environment	0.671	66	A
GDP per Square Kilometer	0.223	57	A+	Z4.1 Basic Elements	0.898	12	A++
Real Economic Growth Rate (5 Years)	0.121	492	D+	Z4.2 Financial Market	0.522	82	A
Employment Rate	0.960	76	A	Z4.3 The Ability for Innovation	0.524	67	A
Labor Productivity	0.211	211	B	Z4.4 Market Scale	0.346	96	A-
Number of International Patents	0.107	129	A--	Z5 Soft Environment	0.699	94	A-
Multinational Corporation Score	0.485	17	A++	Z5.1 Market System	0.467	122	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.572	111	A-
Z1 Enterprise Quality	0.714	78	A	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.850	23	A++	Z5.4 Public Service	0.491	112	A-
Z1.2 Corporate System	0.650	97	A-	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.733	93	A-	Z5.6 Paying Taxes	0.818	35	A+
Z1.4 Enterprise Operation	0.626	64	A	Z6 Living Environment	0.846	44	A+
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.863	23	A++
Z1.6 Enterprise Performance	0.667	43	A+	Z6.2 Environmental Quality	0.890	93	A-
Z2 Industry Structure	0.703	8	A++	Z6.3 Shopping Environment	0.746	75	A
Z2.1 Manufacturing Development	0.905	5	A++	Z6.4 Dining & Restaurant	0.755	103	A-
Z2.2 Service Industry Development	0.795	6	A++	Z6.5 Housing	0.605	126	A--
Z2.3 Financial Sector Development	0.562	19	A++	Z6.6 Culture and Entertainment	0.417	93	A-
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.941	7	A++
Z3 Human Resource	0.726	90	A	Z7 Global Connectivity	0.424	101	A-
Z3.1 Health	0.950	32	A+	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.720	58	A+	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.417	96	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.131	65	A
				Z7.5 Information Connectivity	0.382	84	A
				Z7.6 Residents Connectivity	0.155	74	A
				Z7.7 Enterprises Connectivity	0.313	73	A

TEL AVIV CITY COMPETITIVENESS

Table A2.259 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	37.89
Area (Sq Km)	171.00
GDP per Capita (\$)	23054
GDP Growth Rate (%)	4.75



Table A2.260 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.517	33	A+	Z3.4 Status of Talent	0.453	47	A+
Nominal/Real Exchange Rate Ratio	0.062	302	C++	Z3.5 Education Development	0.385	114	A-
GDP	0.049	99	A-	Z3.6 Cost of Labor Force	0.730	49	A+
GDP per Capita	0.366	189	B+	Z4 Hard Environment	0.642	85	A
GDP per Square Kilometer	0.260	41	A+	Z4.1 Basic Elements	0.704	114	A-
Real Economic Growth Rate (5 Years)	0.272	239	B	Z4.2 Financial Market	0.680	16	A++
Employment Rate	0.903	298	B--	Z4.3 The Ability for Innovation	0.525	66	A
Labor Productivity	0.320	178	B++	Z4.4 Market Scale	0.280	113	A-
Number of International Patents	0.319	55	A+	Z5 Soft Environment	0.667	99	A-
Multinational Corporation Score	0.242	59	A+	Z5.1 Market System	0.429	133	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.582	107	A-
Z1 Enterprise Quality	0.696	85	A	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.500	126	A--	Z5.4 Public Service	0.477	115	A-
Z1.2 Corporate System	0.850	41	A+	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.833	75	A	Z5.6 Paying Taxes	0.785	79	A
Z1.4 Enterprise Operation	0.677	44	A+	Z6 Living Environment	0.755	133	A--
Z1.5 Brand	0.600	70	A	Z6.1 Natural Environment	0.870	21	A++
Z1.6 Enterprise Performance	0.367	109	A-	Z6.2 Environmental Quality	0.755	111	A-
Z2 Industry Structure	0.544	53	A+	Z6.3 Shopping Environment	0.709	102	A-
Z2.1 Manufacturing Development	0.682	62	A	Z6.4 Dining & Restaurant	0.730	113	A-
Z2.2 Service Industry Development	0.608	42	A+	Z6.5 Housing	0.457	143	A--
Z2.3 Financial Sector Development	0.407	46	A+	Z6.6 Culture and Entertainment	0.405	106	A-
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.730	93	A-
Z3 Human Resource	0.718	96	A-	Z7 Global Connectivity	0.414	105	A-
Z3.1 Health	0.961	23	A++	Z7.1 Location Convenience	0.216	128	A--
Z3.2 Literacy Quality	0.509	144	A--	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.399	112	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.017	132	A--
				Z7.5 Information Connectivity	0.347	100	A-
				Z7.6 Residents Connectivity	0.577	8	A++
				Z7.7 Enterprises Connectivity	0.283	90	A

THE HAGUE CITY COMPETITIVENESS

Table A2.261 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	47.21
Area (Sq Km)	98.20
GDP per Capita (\$)	44711
GDP Growth Rate (%)	0.83



Table A2.262 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.441	76	A	Z3.4 Status of Talent	1.000	1	A++
Nominal/Real Exchange Rate Ratio	0.021	442	C--	Z3.5 Education Development	0.344	144	A--
GDP	0.036	139	A--	Z3.6 Cost of Labor Force	0.528	119	A-
GDP per Capita	0.712	44	A+	Z4 Hard Environment	0.688	58	A+
GDP per Square Kilometer	0.334	26	A++	Z4.1 Basic Elements	0.708	112	A-
Real Economic Growth Rate (5 Years)	0.138	455	D++	Z4.2 Financial Market	0.641	51	A+
Employment Rate	0.925	223	B	Z4.3 The Ability for Innovation	0.553	55	A+
Labor Productivity	0.627	32	A+	Z4.4 Market Scale	0.446	59	A+
Number of International Patents	0.293	68	A	Z5 Soft Environment	0.774	65	A
Multinational Corporation Score	0.046	262	B-	Z5.1 Market System	0.563	98	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.724	84	A
Z1 Enterprise Quality	0.925	8	A++	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.624	51	A+
Z1.2 Corporate System	0.950	8	A++	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.867	61	A	Z5.6 Paying Taxes	0.854	21	A++
Z1.4 Enterprise Operation	1.000	1	A++	Z6 Living Environment	0.830	59	A+
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.647	105	A-
Z1.6 Enterprise Performance	0.567	62	A	Z6.2 Environmental Quality	0.934	69	A
Z2 Industry Structure	0.444	111	A-	Z6.3 Shopping Environment	0.859	23	A++
Z2.1 Manufacturing Development	0.587	107	A-	Z6.4 Dining & Restaurant	0.853	49	A+
Z2.2 Service Industry Development	0.352	126	A--	Z6.5 Housing	0.649	109	A-
Z2.3 Financial Sector Development	0.296	72	A	Z6.6 Culture and Entertainment	0.536	24	A++
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.641	134	A--
Z3 Human Resource	0.835	10	A++	Z7 Global Connectivity	0.455	84	A
Z3.1 Health	0.925	67	A	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.837	17	A++	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.364	133	A--	Z7.3 Water Transportation	0.139	73	A
				Z7.4 Air Transportation	0.000	141	A--
				Z7.5 Information Connectivity	0.266	130	A--
				Z7.6 Residents Connectivity	0.552	9	A++
				Z7.7 Enterprises Connectivity	0.291	86	A

TIANJIN CITY COMPETITIVENESS

Table A2.263 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	640.50
Area (Sq Km)	7418.00
GDP per Capita (\$)	5004
GDP Growth Rate (%)	14.63



Table A2.264 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.265	223	B	Z3.4 Status of Talent	0.098	124	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.510	39	A+
GDP	0.071	59	A+	Z3.6 Cost of Labor Force	0.838	25	A++
GDP per Capita	0.077	299	B--	Z4 Hard Environment	0.558	113	A-
GDP per Square Kilometer	0.009	389	C	Z4.1 Basic Elements	0.816	57	A+
Real Economic Growth Rate (5 Years)	0.609	37	A+	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.930	200	B+	Z4.3 The Ability for Innovation	0.359	123	A--
Labor Productivity	0.068	296	B--	Z4.4 Market Scale	0.300	108	A-
Number of International Patents	0.024	210	B+	Z5 Soft Environment	0.571	135	A--
Multinational Corporation Score	0.075	191	B+	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.426	145	A--	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.550	110	A-	Z5.4 Public Service	0.432	132	A--
Z1.2 Corporate System	0.500	127	A--	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.533	143	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.226	149	A--	Z6 Living Environment	0.741	135	A--
Z1.5 Brand	0.200	135	A--	Z6.1 Natural Environment	0.592	126	A--
Z1.6 Enterprise Performance	0.333	116	A-	Z6.2 Environmental Quality	0.476	144	A--
Z2 Industry Structure	0.362	134	A--	Z6.3 Shopping Environment	0.698	109	A-
Z2.1 Manufacturing Development	0.467	136	A--	Z6.4 Dining & Restaurant	0.906	22	A++
Z2.2 Service Industry Development	0.303	140	A--	Z6.5 Housing	0.614	123	A--
Z2.3 Financial Sector Development	0.208	114	A-	Z6.6 Culture and Entertainment	0.452	64	A
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.833	58	A+
Z3 Human Resource	0.718	96	A-	Z7 Global Connectivity	0.468	77	A
Z3.1 Health	0.920	73	A	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.565	129	A--	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.505	45	A+	Z7.3 Water Transportation	0.523	14	A++
				Z7.4 Air Transportation	0.024	127	A--
				Z7.5 Information Connectivity	0.319	112	A-
				Z7.6 Residents Connectivity	0.012	139	A--
				Z7.7 Enterprises Connectivity	0.245	116	A-

TOKYO CITY COMPETITIVENESS

Table A2.265 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10 000)	1257.09
Area (Sq Km)	621.49
GDP per Capita (\$)	46 510
GDP Growth Rate (%)	0.56



Table A2.266 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.790	3	A++	Z3.4 Status of Talent	0.604	16	A++
Nominal/Real Exchange Rate Ratio	0.017	448	C--	Z3.5 Education Development	1.000	1	A++
GDP	1.000	1	A++	Z3.6 Cost of Labor Force	0.238	149	A--
GDP per Capita	0.741	39	A+	Z4 Hard Environment	1.000	1	A++
GDP per Square Kilometer	0.416	15	A++	Z4.1 Basic Elements	0.654	128	A--
Real Economic Growth Rate (5 Years)	0.128	480	D++	Z4.2 Financial Market	0.757	4	A++
Employment Rate	0.952	122	A--	Z4.3 The Ability for Innovation	1.000	1	A++
Labor Productivity	0.522	69	A	Z4.4 Market Scale	1.000	1	A++
Number of International Patents	1.000	1	A++	Z5 Soft Environment	0.809	54	A+
Multinational Corporation Score	0.632	5	A++	Z5.1 Market System	0.589	85	A
Subentry Competitiveness				Z5.2 Market Regulation	0.736	74	A
Z1 Enterprise Quality	0.914	12	A++	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	0.900	14	A++	Z5.4 Public Service	0.544	83	A
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	0.800	39	A+
Z1.3 Enterprise Management	0.967	12	A++	Z5.6 Paying Taxes	0.785	79	A
Z1.4 Enterprise Operation	0.889	6	A++	Z6 Living Environment	0.808	88	A
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.773	62	A
Z1.6 Enterprise Performance	0.467	94	A-	Z6.2 Environmental Quality	0.908	87	A
Z2 Industry Structure	1.000	1	A++	Z6.3 Shopping Environment	0.724	91	A-
Z2.1 Manufacturing Development	1.000	1	A++	Z6.4 Dining & Restaurant	0.742	108	A-
Z2.2 Service Industry Development	1.000	1	A++	Z6.5 Housing	0.689	76	A
Z2.3 Financial Sector Development	0.965	4	A++	Z6.6 Culture and Entertainment	0.321	139	A--
Z2.4 High-Tech Industry Development	1.000	1	A++	Z6.7 Social Security	0.827	68	A
Z3 Human Resource	0.954	2	A++	Z7 Global Connectivity	0.741	8	A++
Z3.1 Health	0.980	10	A++	Z7.1 Location Convenience	1.000	1	A++
Z3.2 Literacy Quality	0.803	26	A++	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.941	3	A++	Z7.3 Water Transportation	0.380	31	A+
				Z7.4 Air Transportation	0.354	12	A++
				Z7.5 Information Connectivity	0.681	7	A++
				Z7.6 Residents Connectivity	0.050	114	A-
				Z7.7 Enterprises Connectivity	0.540	9	A++

TORONTO CITY COMPETITIVENESS

Table A2.267 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	249.89
Area (Sq Km)	630.18
GDP per Capita (\$)	40956
GDP Growth Rate (%)	2.55



Table A2.268 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.618	11	A++	Z3.4 Status of Talent	0.467	40	A+
Nominal/Real Exchange Rate Ratio	0.043	315	C++	Z3.5 Education Development	0.520	35	A+
GDP	0.175	16	A++	Z3.6 Cost of Labor Force	0.601	97	A-
GDP per Capita	0.652	79	A	Z4 Hard Environment	0.716	46	A++
GDP per Square Kilometer	0.252	45	A+	Z4.1 Basic Elements	0.736	100	A-
Real Economic Growth Rate (5 Years)	0.196	360	C+	Z4.2 Financial Market	0.540	74	A
Employment Rate	0.902	303	C++	Z4.3 The Ability for Innovation	0.703	15	A++
Labor Productivity	0.483	94	A-	Z4.4 Market Scale	0.464	50	A+
Number of International Patents	0.326	48	A+	Z5 Soft Environment	0.873	23	A++
Multinational Corporation Score	0.495	16	A++	Z5.1 Market System	0.644	43	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.869	14	A++
Z1 Enterprise Quality	0.831	39	A+	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.630	49	A+
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.865	12	A++
Z1.4 Enterprise Operation	0.768	20	A++	Z6 Living Environment	0.828	63	A
Z1.5 Brand	1.000	1	A++	Z6.1 Natural Environment	0.555	133	A--
Z1.6 Enterprise Performance	0.267	130	A--	Z6.2 Environmental Quality	0.957	35	A+
Z2 Industry Structure	0.707	7	A++	Z6.3 Shopping Environment	0.758	70	A
Z2.1 Manufacturing Development	0.804	12	A++	Z6.4 Dining & Restaurant	0.845	54	A+
Z2.2 Service Industry Development	0.697	20	A++	Z6.5 Housing	0.770	24	A++
Z2.3 Financial Sector Development	0.640	10	A++	Z6.6 Culture and Entertainment	0.429	82	A
Z2.4 High-Tech Industry Development	0.663	11	A++	Z6.7 Social Security	0.792	83	A
Z3 Human Resource	0.787	35	A+	Z7 Global Connectivity	0.618	29	A++
Z3.1 Health	0.922	71	A	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.737	50	A+	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.523	39	A+	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.272	27	A++
				Z7.5 Information Connectivity	0.701	6	A++
				Z7.6 Residents Connectivity	0.463	15	A++
				Z7.7 Enterprises Connectivity	0.596	7	A++

TURIN CITY COMPETITIVENESS

Table A2.269 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	90.23
Area (Sq Km)	130.00
GDP per Capita (\$)	27097
GDP Growth Rate (%)	0.75



Table A2.270 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.297	190	B+	Z3.4 Status of Talent	0.395	87	A
Nominal/Real Exchange Rate Ratio	0.034	340	C+	Z3.5 Education Development	0.358	137	A--
GDP	0.042	124	A--	Z3.6 Cost of Labor Force	0.509	122	A--
GDP per Capita	0.430	174	B++	Z4 Hard Environment	0.558	113	A-
GDP per Square Kilometer	0.341	24	A++	Z4.1 Basic Elements	0.682	120	A-
Real Economic Growth Rate (5 Years)	0.135	462	D++	Z4.2 Financial Market	0.462	105	A-
Employment Rate	0.935	183	B+	Z4.3 The Ability for Innovation	0.401	113	A-
Labor Productivity	0.380	151	B++	Z4.4 Market Scale	0.356	93	A-
Number of International Patents	0.005	309	C++	Z5 Soft Environment	0.633	109	A-
Multinational Corporation Score	0.062	212	B	Z5.1 Market System	0.368	140	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.569	114	A-
Z1 Enterprise Quality	0.795	52	A+	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.550	110	A-	Z5.4 Public Service	0.532	95	A-
Z1.2 Corporate System	0.900	23	A++	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.767	87	A	Z5.6 Paying Taxes	0.719	98	A-
Z1.4 Enterprise Operation	0.984	2	A++	Z6 Living Environment	0.828	63	A
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.548	134	A--
Z1.6 Enterprise Performance	0.467	94	A-	Z6.2 Environmental Quality	0.936	62	A
Z2 Industry Structure	0.488	89	A	Z6.3 Shopping Environment	0.935	8	A++
Z2.1 Manufacturing Development	0.683	61	A	Z6.4 Dining & Restaurant	0.697	129	A--
Z2.2 Service Industry Development	0.386	121	A--	Z6.5 Housing	0.627	117	A-
Z2.3 Financial Sector Development	0.340	56	A+	Z6.6 Culture and Entertainment	0.571	17	A++
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.790	85	A
Z3 Human Resource	0.710	108	A-	Z7 Global Connectivity	0.376	118	A-
Z3.1 Health	0.965	22	A++	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.799	35	A+	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.375	127	A--	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.058	104	A-
				Z7.5 Information Connectivity	0.334	106	A-
				Z7.6 Residents Connectivity	0.223	50	A+
				Z7.7 Enterprises Connectivity	0.253	112	A-

ULSAN CITY COMPETITIVENESS

Table A2.271 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	109.51
Area (Sq Km)	1057.10
GDP per Capita (\$)	35414
GDP Growth Rate (%)	6.39



Table A2.272 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.323	162	B++	Z3.4 Status of Talent	0.386	93	A-
Nominal/Real Exchange Rate Ratio	0.068	293	B--	Z3.5 Education Development	0.390	112	A-
GDP	0.066	66	A	Z3.6 Cost of Labor Force	0.327	147	A--
GDP per Capita	0.564	122	A--	Z4 Hard Environment	0.663	72	A
GDP per Square Kilometer	0.057	212	B	Z4.1 Basic Elements	0.871	28	A++
Real Economic Growth Rate (5 Years)	0.328	184	B+	Z4.2 Financial Market	0.476	102	A-
Employment Rate	0.963	69	A	Z4.3 The Ability for Innovation	0.440	99	A-
Labor Productivity	0.487	91	A-	Z4.4 Market Scale	0.474	45	A+
Number of International Patents	0.031	201	B+	Z5 Soft Environment	0.664	101	A-
Multinational Corporation Score	0.000	478	D++	Z5.1 Market System	0.558	104	A-
Subentry Competitiveness				Z5.2 Market Regulation	0.633	97	A-
Z1 Enterprise Quality	0.684	88	A	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.550	110	A-	Z5.4 Public Service	0.634	47	A+
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.833	75	A	Z5.6 Paying Taxes	0.634	134	A--
Z1.4 Enterprise Operation	0.508	87	A	Z6 Living Environment	0.815	83	A
Z1.5 Brand	0.300	123	A--	Z6.1 Natural Environment	0.660	100	A-
Z1.6 Enterprise Performance	0.867	12	A++	Z6.2 Environmental Quality	0.567	137	A--
Z2 Industry Structure	0.324	144	A--	Z6.3 Shopping Environment	0.727	88	A
Z2.1 Manufacturing Development	0.414	146	A--	Z6.4 Dining & Restaurant	0.841	60	A+
Z2.2 Service Industry Development	0.267	145	A--	Z6.5 Housing	0.900	6	A++
Z2.3 Financial Sector Development	0.145	145	A--	Z6.6 Culture and Entertainment	0.429	82	A
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.902	20	A++
Z3 Human Resource	0.634	148	A--	Z7 Global Connectivity	0.362	123	A--
Z3.1 Health	0.933	55	A+	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.606	108	A-	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.397	114	A-	Z7.3 Water Transportation	0.321	50	A+
				Z7.4 Air Transportation	0.008	138	A--
				Z7.5 Information Connectivity	0.225	145	A--
				Z7.6 Residents Connectivity	0.065	102	A-
				Z7.7 Enterprises Connectivity	0.223	148	A--

VANCOUVER CITY COMPETITIVENESS

Table A2.273 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	57.80
Area (Sq Km)	114.67
GDP per Capita (\$)	33882
GDP Growth Rate (%)	2.42



Table A2.274 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.488	47	A+	Z3.4 Status of Talent	0.407	85	A
Nominal/Real Exchange Rate Ratio	0.043	315	C++	Z3.5 Education Development	0.418	100	A-
GDP	0.033	157	B++	Z3.6 Cost of Labor Force	0.654	71	A
GDP per Capita	0.539	133	A--	Z4 Hard Environment	0.642	85	A
GDP per Square Kilometer	0.265	37	A+	Z4.1 Basic Elements	0.723	106	A-
Real Economic Growth Rate (5 Years)	0.192	372	C	Z4.2 Financial Market	0.529	75	A
Employment Rate	0.955	97	A-	Z4.3 The Ability for Innovation	0.582	49	A+
Labor Productivity	0.392	145	A--	Z4.4 Market Scale	0.357	92	A-
Number of International Patents	0.317	58	A+	Z5 Soft Environment	0.823	48	A+
Multinational Corporation Score	0.176	84	A	Z5.1 Market System	0.644	43	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.869	14	A++
Z1 Enterprise Quality	0.719	76	A	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.654	44	A+
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	0.700	53	A+
Z1.3 Enterprise Management	0.900	48	A+	Z5.6 Paying Taxes	0.865	12	A++
Z1.4 Enterprise Operation	0.551	77	A	Z6 Living Environment	0.798	101	A-
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.517	139	A--
Z1.6 Enterprise Performance	0.700	35	A+	Z6.2 Environmental Quality	0.984	7	A++
Z2 Industry Structure	0.546	50	A+	Z6.3 Shopping Environment	0.790	49	A+
Z2.1 Manufacturing Development	0.746	35	A+	Z6.4 Dining & Restaurant	0.805	84	A
Z2.2 Service Industry Development	0.507	86	A	Z6.5 Housing	0.709	56	A+
Z2.3 Financial Sector Development	0.299	70	A	Z6.6 Culture and Entertainment	0.429	82	A
Z2.4 High-Tech Industry Development	0.614	26	A++	Z6.7 Social Security	0.687	113	A-
Z3 Human Resource	0.754	65	A	Z7 Global Connectivity	0.635	25	A++
Z3.1 Health	0.985	6	A++	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.710	63	A	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.435	85	A	Z7.3 Water Transportation	0.447	20	A++
				Z7.4 Air Transportation	0.184	51	A+
				Z7.5 Information Connectivity	0.550	20	A++
				Z7.6 Residents Connectivity	0.711	4	A++
				Z7.7 Enterprises Connectivity	0.332	61	A

VIENNA CITY COMPETITIVENESS

Table A2.275 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	165.14
Area (Sq Km)	414.90
GDP per Capita (\$)	47780
GDP Growth Rate (%)	2.24



Table A2.276 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.569	18	A++	Z3.4 Status of Talent	0.573	22	A++
Nominal/Real Exchange Rate Ratio	0.026	414	C-	Z3.5 Education Development	0.477	58	A+
GDP	0.135	26	A++	Z3.6 Cost of Labor Force	0.557	108	A-
GDP per Capita	0.762	29	A++	Z4 Hard Environment	0.695	55	A+
GDP per Square Kilometer	0.295	35	A+	Z4.1 Basic Elements	0.669	125	A--
Real Economic Growth Rate (5 Years)	0.186	378	C	Z4.2 Financial Market	0.616	54	A+
Employment Rate	0.879	366	C	Z4.3 The Ability for Innovation	0.592	44	A+
Labor Productivity	0.426	122	A--	Z4.4 Market Scale	0.494	33	A+
Number of International Patents	0.301	64	A	Z5 Soft Environment	0.834	42	A+
Multinational Corporation Score	0.319	42	A+	Z5.1 Market System	0.633	53	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.618	100	A-
Z1 Enterprise Quality	0.726	74	A	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	0.750	52	A+	Z5.4 Public Service	0.535	92	A-
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	1.000	1	A++
Z1.3 Enterprise Management	0.867	61	A	Z5.6 Paying Taxes	0.809	41	A+
Z1.4 Enterprise Operation	0.475	97	A-	Z6 Living Environment	0.941	7	A++
Z1.5 Brand	0.700	51	A+	Z6.1 Natural Environment	0.750	67	A
Z1.6 Enterprise Performance	0.500	81	A	Z6.2 Environmental Quality	0.912	83	A
Z2 Industry Structure	0.604	31	A+	Z6.3 Shopping Environment	1.000	1	A++
Z2.1 Manufacturing Development	0.740	39	A+	Z6.4 Dining & Restaurant	0.866	45	A+
Z2.2 Service Industry Development	0.623	37	A+	Z6.5 Housing	0.898	7	A++
Z2.3 Financial Sector Development	0.506	25	A++	Z6.6 Culture and Entertainment	0.667	11	A++
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.714	101	A-
Z3 Human Resource	0.779	42	A+	Z7 Global Connectivity	0.545	44	A+
Z3.1 Health	0.918	74	A	Z7.1 Location Convenience	0.608	43	A+
Z3.2 Literacy Quality	0.671	76	A	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.534	35	A+	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.146	60	A+
				Z7.5 Information Connectivity	0.473	44	A+
				Z7.6 Residents Connectivity	0.376	20	A++
				Z7.7 Enterprises Connectivity	0.344	51	A+

WARSAW CITY COMPETITIVENESS

Table A2.277 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	167.99
Area (Sq Km)	517.00
GDP per Capita (\$)	14848
GDP Growth Rate (%)	3.50



Table A2.278 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.360	134	A--	Z3.4 Status of Talent	0.473	38	A+
Nominal/Real Exchange Rate Ratio	0.124	242	B-	Z3.5 Education Development	0.479	51	A+
GDP	0.042	121	A--	Z3.6 Cost of Labor Force	0.713	52	A+
GDP per Capita	0.234	205	B+	Z4 Hard Environment	0.509	145	A--
GDP per Square Kilometer	0.075	178	B++	Z4.1 Basic Elements	0.595	141	A--
Real Economic Growth Rate (5 Years)	0.229	309	C++	Z4.2 Financial Market	0.405	140	A--
Employment Rate	0.911	275	B--	Z4.3 The Ability for Innovation	0.464	94	A-
Labor Productivity	0.205	212	B	Z4.4 Market Scale	0.274	114	A-
Number of International Patents	0.060	165	B++	Z5 Soft Environment	0.584	128	A--
Multinational Corporation Score	0.443	19	A++	Z5.1 Market System	0.440	132	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.507	119	A-
Z1 Enterprise Quality	0.571	120	A-	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.450	135	A--	Z5.4 Public Service	0.470	117	A-
Z1.2 Corporate System	0.450	138	A--	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.633	118	A-	Z5.6 Paying Taxes	0.703	103	A-
Z1.4 Enterprise Operation	0.506	90	A	Z6 Living Environment	0.853	36	A+
Z1.5 Brand	0.600	70	A	Z6.1 Natural Environment	0.626	111	A-
Z1.6 Enterprise Performance	0.500	81	A	Z6.2 Environmental Quality	0.924	74	A
Z2 Industry Structure	0.553	49	A+	Z6.3 Shopping Environment	0.691	115	A-
Z2.1 Manufacturing Development	0.645	85	A	Z6.4 Dining & Restaurant	0.842	59	A+
Z2.2 Service Industry Development	0.506	89	A	Z6.5 Housing	0.586	132	A--
Z2.3 Financial Sector Development	0.450	35	A+	Z6.6 Culture and Entertainment	0.798	3	A++
Z2.4 High-Tech Industry Development	0.591	34	A+	Z6.7 Social Security	0.792	83	A
Z3 Human Resource	0.808	20	A++	Z7 Global Connectivity	0.412	106	A-
Z3.1 Health	0.930	58	A+	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.864	10	A++	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.411	104	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.068	99	A-
				Z7.5 Information Connectivity	0.384	80	A
				Z7.6 Residents Connectivity	0.289	35	A+
				Z7.7 Enterprises Connectivity	0.321	70	A

WASHINGTON CITY COMPETITIVENESS

Table A2.279 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	58.20
Area (Sq Km)	162.40
GDP per Capita (\$)	58 549
GDP Growth Rate (%)	3.70



Table A2.280 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.696	5	A++	Z3.4 Status of Talent	0.547	25	A++
Nominal/Real Exchange Rate Ratio	0.031	356	C+	Z3.5 Education Development	0.645	10	A++
GDP	0.058	74	A	Z3.6 Cost of Labor Force	0.587	99	A-
GDP per Capita	0.934	5	A++	Z4 Hard Environment	0.834	7	A++
GDP per Square Kilometer	0.326	27	A++	Z4.1 Basic Elements	0.829	50	A+
Real Economic Growth Rate (5 Years)	0.236	293	B--	Z4.2 Financial Market	0.667	18	A++
Employment Rate	0.913	269	B-	Z4.3 The Ability for Innovation	0.703	15	A++
Labor Productivity	0.629	29	A++	Z4.4 Market Scale	0.645	12	A++
Number of International Patents	0.477	14	A++	Z5 Soft Environment	0.869	26	A++
Multinational Corporation Score	0.443	19	A++	Z5.1 Market System	0.695	7	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.819	23	A++
Z1 Enterprise Quality	0.962	2	A++	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.900	14	A++	Z5.4 Public Service	0.772	29	A++
Z1.2 Corporate System	1.000	1	A++	Z5.5 Strategy and Experience	0.800	39	A+
Z1.3 Enterprise Management	1.000	1	A++	Z5.6 Paying Taxes	0.803	42	A+
Z1.4 Enterprise Operation	0.720	31	A+	Z6 Living Environment	0.864	23	A++
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.787	58	A+
Z1.6 Enterprise Performance	0.767	23	A++	Z6.2 Environmental Quality	0.977	16	A++
Z2 Industry Structure	0.663	14	A++	Z6.3 Shopping Environment	0.785	50	A+
Z2.1 Manufacturing Development	0.801	13	A++	Z6.4 Dining & Restaurant	0.916	19	A++
Z2.2 Service Industry Development	0.669	29	A++	Z6.5 Housing	0.678	85	A
Z2.3 Financial Sector Development	0.507	24	A++	Z6.6 Culture and Entertainment	0.464	53	A+
Z2.4 High-Tech Industry Development	0.653	14	A++	Z6.7 Social Security	0.718	100	A-
Z3 Human Resource	0.843	8	A++	Z7 Global Connectivity	0.630	26	A++
Z3.1 Health	0.947	37	A+	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.826	21	A++	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.485	55	A+	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.308	20	A++
				Z7.5 Information Connectivity	0.636	12	A++
				Z7.6 Residents Connectivity	0.251	43	A+
				Z7.7 Enterprises Connectivity	0.652	5	A++

WELLINGTON CITY COMPETITIVENESS

Table A2.281 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	34.07
Area (Sq Km)	266.25
GDP per Capita (\$)	45 722
GDP Growth Rate (%)	2.86



Table A2.282 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.447	75	A	Z3.4 Status of Talent	0.478	35	A+
Nominal/Real Exchange Rate Ratio	0.033	352	C+	Z3.5 Education Development	0.385	114	A-
GDP	0.035	145	A--	Z3.6 Cost of Labor Force	0.759	42	A+
GDP per Capita	0.729	42	A+	Z4 Hard Environment	0.628	90	A
GDP per Square Kilometer	0.120	128	A--	Z4.1 Basic Elements	0.752	93	A-
Real Economic Growth Rate (5 Years)	0.207	344	C+	Z4.2 Financial Market	0.480	98	A-
Employment Rate	0.959	84	A	Z4.3 The Ability for Innovation	0.487	84	A
Labor Productivity	0.430	118	A-	Z4.4 Market Scale	0.423	77	A
Number of International Patents	0.223	80	A	Z5 Soft Environment	0.912	7	A++
Multinational Corporation Score	0.149	99	A-	Z5.1 Market System	0.649	41	A+
Subentry Competitiveness				Z5.2 Market Regulation	1.000	1	A++
Z1 Enterprise Quality	0.631	99	A-	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.800	32	A+	Z5.4 Public Service	0.704	34	A+
Z1.2 Corporate System	0.500	127	A--	Z5.5 Strategy and Experience	0.900	26	A++
Z1.3 Enterprise Management	0.733	93	A-	Z5.6 Paying Taxes	0.870	10	A++
Z1.4 Enterprise Operation	0.334	126	A--	Z6 Living Environment	0.892	14	A++
Z1.5 Brand	0.800	30	A++	Z6.1 Natural Environment	0.750	67	A
Z1.6 Enterprise Performance	0.300	123	A--	Z6.2 Environmental Quality	0.935	65	A
Z2 Industry Structure	0.480	93	A-	Z6.3 Shopping Environment	0.834	26	A++
Z2.1 Manufacturing Development	0.644	86	A	Z6.4 Dining & Restaurant	0.891	33	A+
Z2.2 Service Industry Development	0.512	85	A	Z6.5 Housing	0.740	35	A+
Z2.3 Financial Sector Development	0.222	108	A-	Z6.6 Culture and Entertainment	0.488	40	A+
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.861	33	A+
Z3 Human Resource	0.782	37	A+	Z7 Global Connectivity	0.550	39	A+
Z3.1 Health	0.946	38	A+	Z7.1 Location Convenience	0.532	74	A
Z3.2 Literacy Quality	0.651	90	A	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.527	37	A+	Z7.3 Water Transportation	0.348	41	A+
				Z7.4 Air Transportation	0.081	90	A
				Z7.5 Information Connectivity	0.405	69	A
				Z7.6 Residents Connectivity	0.353	25	A++
				Z7.7 Enterprises Connectivity	0.256	107	A-

WENZHOU CITY COMPETITIVENESS

Table A2.283 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	96.00
Area (Sq Km)	1187.00
GDP per Capita (\$)	3291
GDP Growth Rate (%)	14.67



Table A2.284 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.182	338	C+	Z3.4 Status of Talent	0.091	127	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.344	144	A--
GDP	0.014	279	B--	Z3.6 Cost of Labor Force	0.835	27	A++
GDP per Capita	0.049	365	C	Z4 Hard Environment	0.524	137	A--
GDP per Square Kilometer	0.011	352	C+	Z4.1 Basic Elements	0.925	8	A++
Real Economic Growth Rate (5 Years)	0.611	35	A+	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.976	26	A++	Z4.3 The Ability for Innovation	0.315	144	A--
Labor Productivity	0.031	395	C-	Z4.4 Market Scale	0.120	147	A--
Number of International Patents	0.006	296	B--	Z5 Soft Environment	0.586	127	A--
Multinational Corporation Score	0.008	406	C-	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.556	124	A--	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.650	85	A	Z5.4 Public Service	0.413	143	A--
Z1.2 Corporate System	0.650	97	A-	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.467	147	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.289	139	A--	Z6 Living Environment	0.800	96	A-
Z1.5 Brand	0.200	135	A--	Z6.1 Natural Environment	0.884	15	A++
Z1.6 Enterprise Performance	0.800	20	A++	Z6.2 Environmental Quality	0.528	141	A--
Z2 Industry Structure	0.306	149	A--	Z6.3 Shopping Environment	0.796	46	A+
Z2.1 Manufacturing Development	0.422	145	A--	Z6.4 Dining & Restaurant	0.810	82	A
Z2.2 Service Industry Development	0.241	150	A--	Z6.5 Housing	0.688	77	A
Z2.3 Financial Sector Development	0.157	143	A--	Z6.6 Culture and Entertainment	0.393	112	A-
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.837	49	A+
Z3 Human Resource	0.668	134	A--	Z7 Global Connectivity	0.322	137	A--
Z3.1 Health	0.889	102	A-	Z7.1 Location Convenience	0.512	84	A
Z3.2 Literacy Quality	0.551	135	A--	Z7.2 Land Transportation	0.500	142	A--
Z3.3 Status of the Labor Market	0.488	51	A+	Z7.3 Water Transportation	0.187	71	A
				Z7.4 Air Transportation	0.015	133	A--
				Z7.5 Information Connectivity	0.272	127	A--
				Z7.6 Residents Connectivity	0.030	126	A--
				Z7.7 Enterprises Connectivity	0.225	145	A--

WINNIPEG CITY COMPETITIVENESS

Table A2.285 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	63.07
Area (Sq Km)	464.01
GDP per Capita (\$)	42 592
GDP Growth Rate (%)	2.57



Table A2.286 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.347	142	A--	Z3.4 Status of Talent	0.357	100	A-
Nominal/Real Exchange Rate Ratio	0.043	315	C++	Z3.5 Education Development	0.379	122	A--
GDP	0.046	109	A-	Z3.6 Cost of Labor Force	0.659	69	A
GDP per Capita	0.678	69	A	Z4 Hard Environment	0.664	70	A
GDP per Square Kilometer	0.090	167	B++	Z4.1 Basic Elements	0.802	69	A
Real Economic Growth Rate (5 Years)	0.197	357	C+	Z4.2 Financial Market	0.529	75	A
Employment Rate	0.944	150	A--	Z4.3 The Ability for Innovation	0.477	90	A
Labor Productivity	0.511	74	A	Z4.4 Market Scale	0.456	54	A+
Number of International Patents	0.047	176	B++	Z5 Soft Environment	0.787	61	A
Multinational Corporation Score	0.068	201	B+	Z5.1 Market System	0.644	43	A+
Subentry Competitiveness				Z5.2 Market Regulation	0.869	14	A++
Z1 Enterprise Quality	0.715	77	A	Z5.3 Social Management	0.700	70	A
Z1.1 Corporate Culture	0.600	100	A-	Z5.4 Public Service	0.658	43	A+
Z1.2 Corporate System	0.750	70	A	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.867	61	A	Z5.6 Paying Taxes	0.865	12	A++
Z1.4 Enterprise Operation	0.578	73	A	Z6 Living Environment	0.769	125	A--
Z1.5 Brand	0.400	104	A-	Z6.1 Natural Environment	0.470	141	A--
Z1.6 Enterprise Performance	0.733	29	A++	Z6.2 Environmental Quality	0.978	14	A++
Z2 Industry Structure	0.459	107	A-	Z6.3 Shopping Environment	0.725	89	A
Z2.1 Manufacturing Development	0.692	55	A+	Z6.4 Dining & Restaurant	0.779	95	A-
Z2.2 Service Industry Development	0.376	123	A--	Z6.5 Housing	0.624	118	A-
Z2.3 Financial Sector Development	0.228	104	A-	Z6.6 Culture and Entertainment	0.476	46	A+
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.689	112	A-
Z3 Human Resource	0.714	104	A-	Z7 Global Connectivity	0.344	129	A--
Z3.1 Health	0.915	77	A	Z7.1 Location Convenience	0.216	128	A--
Z3.2 Literacy Quality	0.684	70	A	Z7.2 Land Transportation	0.800	67	A
Z3.3 Status of the Labor Market	0.425	91	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.047	113	A-
				Z7.5 Information Connectivity	0.378	88	A
				Z7.6 Residents Connectivity	0.172	66	A
				Z7.7 Enterprises Connectivity	0.246	115	A-

WUHAN CITY COMPETITIVENESS

Table A2.287 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	445.39
Area (Sq Km)	8494.00
GDP per Capita (\$)	3309
GDP Growth Rate (%)	13.25



Table A2.288 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.218	277	B--	Z3.4 Status of Talent	0.046	147	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.615	18	A++
GDP	0.046	102	A-	Z3.6 Cost of Labor Force	0.882	13	A++
GDP per Capita	0.050	363	C	Z4 Hard Environment	0.564	109	A-
GDP per Square Kilometer	0.005	429	C--	Z4.1 Basic Elements	0.902	10	A++
Real Economic Growth Rate (5 Years)	0.562	55	A+	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.908	289	B--	Z4.3 The Ability for Innovation	0.388	115	A-
Labor Productivity	0.049	346	C+	Z4.4 Market Scale	0.206	133	A--
Number of International Patents	0.022	216	B	Z5 Soft Environment	0.571	135	A--
Multinational Corporation Score	0.046	262	B-	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.604	108	A-	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.500	126	A--	Z5.4 Public Service	0.435	131	A--
Z1.2 Corporate System	0.650	97	A-	Z5.5 Strategy and Experience	0.500	120	A-
Z1.3 Enterprise Management	0.667	106	A-	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.306	133	A--	Z6 Living Environment	0.829	62	A
Z1.5 Brand	0.300	123	A--	Z6.1 Natural Environment	0.886	14	A++
Z1.6 Enterprise Performance	0.900	7	A++	Z6.2 Environmental Quality	0.584	135	A--
Z2 Industry Structure	0.364	131	A--	Z6.3 Shopping Environment	0.818	31	A+
Z2.1 Manufacturing Development	0.506	127	A--	Z6.4 Dining & Restaurant	0.836	64	A
Z2.2 Service Industry Development	0.306	138	A--	Z6.5 Housing	0.695	70	A
Z2.3 Financial Sector Development	0.171	133	A--	Z6.6 Culture and Entertainment	0.464	53	A+
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.832	61	A
Z3 Human Resource	0.740	79	A	Z7 Global Connectivity	0.340	132	A--
Z3.1 Health	0.923	70	A	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.615	103	A-	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.463	63	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.039	117	A-
				Z7.5 Information Connectivity	0.295	119	A-
				Z7.6 Residents Connectivity	0.009	142	A--
				Z7.7 Enterprises Connectivity	0.234	127	A--

XIAMEN CITY COMPETITIVENESS

Table A2.289 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	96.18
Area (Sq Km)	1569.00
GDP per Capita (\$)	6441
GDP Growth Rate (%)	16.15



Table A2.290 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.254	237	B	Z3.4 Status of Talent	0.068	142	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.379	122	A--
GDP	0.021	226	B	Z3.6 Cost of Labor Force	0.883	12	A++
GDP per Capita	0.100	274	B--	Z4 Hard Environment	0.535	128	A--
GDP per Square Kilometer	0.012	340	C+	Z4.1 Basic Elements	0.875	21	A++
Real Economic Growth Rate (5 Years)	0.661	23	A++	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.971	34	A+	Z4.3 The Ability for Innovation	0.335	138	A--
Labor Productivity	0.082	274	B--	Z4.4 Market Scale	0.189	136	A--
Number of International Patents	0.007	292	B--	Z5 Soft Environment	0.549	142	A--
Multinational Corporation Score	0.050	253	B-	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.529	132	A--	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.750	52	A+	Z5.4 Public Service	0.412	144	A--
Z1.2 Corporate System	0.250	147	A--	Z5.5 Strategy and Experience	0.400	142	A--
Z1.3 Enterprise Management	0.533	143	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.276	140	A--	Z6 Living Environment	0.855	31	A+
Z1.5 Brand	0.200	135	A--	Z6.1 Natural Environment	0.964	3	A++
Z1.6 Enterprise Performance	0.900	7	A++	Z6.2 Environmental Quality	0.517	142	A--
Z2 Industry Structure	0.310	147	A--	Z6.3 Shopping Environment	0.785	50	A+
Z2.1 Manufacturing Development	0.340	148	A--	Z6.4 Dining & Restaurant	0.930	12	A++
Z2.2 Service Industry Development	0.270	144	A--	Z6.5 Housing	0.727	46	A+
Z2.3 Financial Sector Development	0.160	141	A--	Z6.6 Culture and Entertainment	0.512	32	A+
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.835	54	A+
Z3 Human Resource	0.666	137	A--	Z7 Global Connectivity	0.343	130	A--
Z3.1 Health	0.873	119	A-	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.569	128	A--	Z7.2 Land Transportation	0.400	147	A--
Z3.3 Status of the Labor Market	0.420	95	A-	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.049	110	A-
				Z7.5 Information Connectivity	0.347	100	A-
				Z7.6 Residents Connectivity	0.067	100	A-
				Z7.7 Enterprises Connectivity	0.236	123	A--

XI'AN CITY COMPETITIVENESS

Table A2.291 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	372.55
Area (Sq Km)	3582.00
GDP per Capita (\$)	2491
GDP Growth Rate (%)	13.40

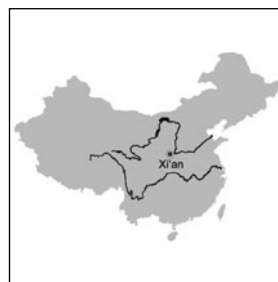


Table A2.292 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.188	330	C++	Z3.4 Status of Talent	0.052	143	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.553	26	A++
GDP	0.024	208	B+	Z3.6 Cost of Labor Force	0.841	22	A++
GDP per Capita	0.037	385	C	Z4 Hard Environment	0.512	144	A--
GDP per Square Kilometer	0.006	412	C-	Z4.1 Basic Elements	0.816	57	A+
Real Economic Growth Rate (5 Years)	0.567	52	A+	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.913	267	B-	Z4.3 The Ability for Innovation	0.336	135	A--
Labor Productivity	0.035	381	C	Z4.4 Market Scale	0.167	140	A--
Number of International Patents	0.011	264	B-	Z5 Soft Environment	0.557	138	A--
Multinational Corporation Score	0.033	311	C++	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.358	149	A--	Z5.3 Social Management	0.500	124	A--
Z1.1 Corporate Culture	0.400	144	A--	Z5.4 Public Service	0.453	121	A--
Z1.2 Corporate System	0.300	145	A--	Z5.5 Strategy and Experience	0.400	142	A--
Z1.3 Enterprise Management	0.567	133	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.335	125	A--	Z6 Living Environment	0.793	106	A-
Z1.5 Brand	0.200	135	A--	Z6.1 Natural Environment	0.775	61	A
Z1.6 Enterprise Performance	0.167	139	A--	Z6.2 Environmental Quality	0.446	145	A--
Z2 Industry Structure	0.361	135	A--	Z6.3 Shopping Environment	0.829	27	A++
Z2.1 Manufacturing Development	0.495	133	A--	Z6.4 Dining & Restaurant	0.982	5	A++
Z2.2 Service Industry Development	0.317	134	A--	Z6.5 Housing	0.633	113	A-
Z2.3 Financial Sector Development	0.162	139	A--	Z6.6 Culture and Entertainment	0.393	112	A-
Z2.4 High-Tech Industry Development	0.458	103	A-	Z6.7 Social Security	0.833	58	A+
Z3 Human Resource	0.702	116	A-	Z7 Global Connectivity	0.318	139	A--
Z3.1 Health	0.889	102	A-	Z7.1 Location Convenience	0.288	123	A--
Z3.2 Literacy Quality	0.587	121	A--	Z7.2 Land Transportation	0.900	38	A+
Z3.3 Status of the Labor Market	0.439	80	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.053	107	A-
				Z7.5 Information Connectivity	0.234	141	A--
				Z7.6 Residents Connectivity	0.017	136	A--
				Z7.7 Enterprises Connectivity	0.229	139	A--

YANGZHOU CITY COMPETITIVENESS

Table A2.293 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	115.65
Area (Sq Km)	980.00
GDP per Capita (\$)	3697
GDP Growth Rate (%)	13.40



Table A2.294 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.176	346	C+	Z3.4 Status of Talent	0.046	147	A--
Nominal/Real Exchange Rate Ratio	0.355	59	A+	Z3.5 Education Development	0.331	147	A--
GDP	0.007	356	C+	Z3.6 Cost of Labor Force	0.888	11	A++
GDP per Capita	0.056	341	C+	Z4 Hard Environment	0.504	147	A--
GDP per Square Kilometer	0.007	400	C-	Z4.1 Basic Elements	0.855	33	A+
Real Economic Growth Rate (5 Years)	0.568	51	A+	Z4.2 Financial Market	0.427	118	A-
Employment Rate	0.907	291	B--	Z4.3 The Ability for Innovation	0.304	147	A--
Labor Productivity	0.052	334	C+	Z4.4 Market Scale	0.135	146	A--
Number of International Patents	0.002	347	C+	Z5 Soft Environment	0.641	108	A-
Multinational Corporation Score	0.004	433	C--	Z5.1 Market System	0.592	62	A
Subentry Competitiveness				Z5.2 Market Regulation	0.485	120	A-
Z1 Enterprise Quality	0.413	147	A--	Z5.3 Social Management	0.600	103	A-
Z1.1 Corporate Culture	0.700	68	A	Z5.4 Public Service	0.418	141	A--
Z1.2 Corporate System	0.300	145	A--	Z5.5 Strategy and Experience	0.800	39	A+
Z1.3 Enterprise Management	0.600	124	A--	Z5.6 Paying Taxes	0.636	111	A-
Z1.4 Enterprise Operation	0.234	147	A--	Z6 Living Environment	0.799	98	A-
Z1.5 Brand	0.200	135	A--	Z6.1 Natural Environment	0.858	26	A++
Z1.6 Enterprise Performance	0.233	132	A--	Z6.2 Environmental Quality	0.723	117	A-
Z2 Industry Structure	0.310	147	A--	Z6.3 Shopping Environment	0.774	54	A+
Z2.1 Manufacturing Development	0.439	143	A--	Z6.4 Dining & Restaurant	0.717	119	A-
Z2.2 Service Industry Development	0.249	149	A--	Z6.5 Housing	0.673	87	A
Z2.3 Financial Sector Development	0.148	144	A--	Z6.6 Culture and Entertainment	0.321	139	A--
Z2.4 High-Tech Industry Development	0.391	131	A--	Z6.7 Social Security	0.862	32	A+
Z3 Human Resource	0.658	141	A--	Z7 Global Connectivity	0.235	150	A--
Z3.1 Health	0.940	46	A+	Z7.1 Location Convenience	0.216	128	A--
Z3.2 Literacy Quality	0.573	126	A--	Z7.2 Land Transportation	0.600	123	A--
Z3.3 Status of the Labor Market	0.375	127	A--	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.000	141	A--
				Z7.5 Information Connectivity	0.209	147	A--
				Z7.6 Residents Connectivity	0.018	132	A--
				Z7.7 Enterprises Connectivity	0.226	144	A--

YERUSHALAYIM CITY COMPETITIVENESS

Table A2.295 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	71.99
Area (Sq Km)	652.00
GDP per Capita (\$)	22561
GDP Growth Rate (%)	4.58

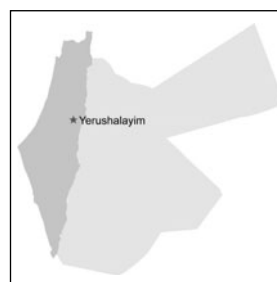


Table A2.296 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.222	272	B--	Z3.4 Status of Talent	0.294	111	A-
Nominal/Real Exchange Rate Ratio	0.062	302	C++	Z3.5 Education Development	0.331	147	A--
GDP	0.027	183	B+	Z3.6 Cost of Labor Force	0.653	73	A
GDP per Capita	0.358	190	B+	Z4 Hard Environment	0.621	92	A-
GDP per Square Kilometer	0.039	246	B-	Z4.1 Basic Elements	0.744	98	A-
Real Economic Growth Rate (5 Years)	0.266	243	B-	Z4.2 Financial Market	0.680	16	A++
Employment Rate	0.899	315	C++	Z4.3 The Ability for Innovation	0.413	105	A-
Labor Productivity	0.314	181	B+	Z4.4 Market Scale	0.283	112	A-
Number of International Patents	0.001	392	C-	Z5 Soft Environment	0.663	102	A-
Multinational Corporation Score	0.000	478	D++	Z5.1 Market System	0.429	133	A--
Subentry Competitiveness				Z5.2 Market Regulation	0.582	107	A-
Z1 Enterprise Quality	0.491	139	A--	Z5.3 Social Management	0.800	42	A+
Z1.1 Corporate Culture	0.400	144	A--	Z5.4 Public Service	0.457	118	A-
Z1.2 Corporate System	0.700	78	A	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.467	147	A--	Z5.6 Paying Taxes	0.785	79	A
Z1.4 Enterprise Operation	0.231	148	A--	Z6 Living Environment	0.786	112	A-
Z1.5 Brand	0.600	70	A	Z6.1 Natural Environment	0.867	22	A++
Z1.6 Enterprise Performance	0.300	123	A--	Z6.2 Environmental Quality	0.791	104	A-
Z2 Industry Structure	0.408	121	A--	Z6.3 Shopping Environment	0.720	95	A-
Z2.1 Manufacturing Development	0.674	66	A	Z6.4 Dining & Restaurant	0.727	114	A-
Z2.2 Service Industry Development	0.282	142	A--	Z6.5 Housing	0.696	68	A
Z2.3 Financial Sector Development	0.137	150	A--	Z6.6 Culture and Entertainment	0.393	112	A-
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.655	129	A--
Z3 Human Resource	0.650	142	A--	Z7 Global Connectivity	0.331	134	A--
Z3.1 Health	0.944	42	A+	Z7.1 Location Convenience	0.364	102	A-
Z3.2 Literacy Quality	0.508	145	A--	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.381	121	A--	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.000	141	A--
				Z7.5 Information Connectivity	0.194	149	A--
				Z7.6 Residents Connectivity	0.308	32	A+
				Z7.7 Enterprises Connectivity	0.221	150	A--

YOKOHAMA CITY COMPETITIVENESS

Table A2.297 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	357.96
Area (Sq Km)	434.98
GDP per Capita (\$)	30818
GDP Growth Rate (%)	1.91



Table A2.298 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.470	57	A+	Z3.4 Status of Talent	0.426	69	A
Nominal/Real Exchange Rate Ratio	0.017	448	C--	Z3.5 Education Development	0.373	127	A--
GDP	0.188	13	A++	Z3.6 Cost of Labor Force	0.473	129	A--
GDP per Capita	0.490	160	B++	Z4 Hard Environment	0.792	14	A++
GDP per Square Kilometer	0.394	17	A++	Z4.1 Basic Elements	0.755	92	A-
Real Economic Growth Rate (5 Years)	0.174	397	C-	Z4.2 Financial Market	0.704	8	A++
Employment Rate	0.954	102	A-	Z4.3 The Ability for Innovation	0.549	57	A+
Labor Productivity	0.344	170	B++	Z4.4 Market Scale	0.695	5	A++
Number of International Patents	0.478	13	A++	Z5 Soft Environment	0.750	75	A
Multinational Corporation Score	0.035	299	B--	Z5.1 Market System	0.589	85	A
Subentry Competitiveness				Z5.2 Market Regulation	0.736	74	A
Z1 Enterprise Quality	0.679	91	A-	Z5.3 Social Management	0.900	19	A++
Z1.1 Corporate Culture	0.650	85	A	Z5.4 Public Service	0.520	103	A-
Z1.2 Corporate System	0.850	41	A+	Z5.5 Strategy and Experience	0.600	88	A
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.785	79	A
Z1.4 Enterprise Operation	0.597	71	A	Z6 Living Environment	0.834	55	A+
Z1.5 Brand	0.500	86	A	Z6.1 Natural Environment	0.747	71	A
Z1.6 Enterprise Performance	0.200	134	A--	Z6.2 Environmental Quality	0.770	110	A-
Z2 Industry Structure	0.442	112	A-	Z6.3 Shopping Environment	0.746	75	A
Z2.1 Manufacturing Development	0.600	100	A-	Z6.4 Dining & Restaurant	0.883	38	A+
Z2.2 Service Industry Development	0.461	101	A-	Z6.5 Housing	0.704	59	A+
Z2.3 Financial Sector Development	0.164	136	A--	Z6.6 Culture and Entertainment	0.417	93	A-
Z2.4 High-Tech Industry Development	0.525	50	A+	Z6.7 Social Security	0.880	26	A++
Z3 Human Resource	0.762	59	A+	Z7 Global Connectivity	0.533	51	A+
Z3.1 Health	1.000	1	A++	Z7.1 Location Convenience	0.756	15	A++
Z3.2 Literacy Quality	0.803	26	A++	Z7.2 Land Transportation	1.000	1	A++
Z3.3 Status of the Labor Market	0.572	27	A++	Z7.3 Water Transportation	0.526	13	A++
				Z7.4 Air Transportation	0.000	141	A--
				Z7.5 Information Connectivity	0.341	105	A-
				Z7.6 Residents Connectivity	0.024	130	A--
				Z7.7 Enterprises Connectivity	0.236	123	A--

ZURICH CITY COMPETITIVENESS

Table A2.299 Basic facts

Basic Facts (Unit)	Numerical Value
Population (10000)	36.68
Area (Sq Km)	91.88
GDP per Capita (\$)	54056
GDP Growth Rate (%)	3.58



Table A2.300 Competitiveness index

Name	Score	Rank	Level	Name	Score	Rank	Level
Comprehensive Competitiveness	0.553	21	A++	Z3.4 Status of Talent	0.670	11	A++
Nominal/Real Exchange Rate Ratio	0.000	497	D+	Z3.5 Education Development	0.358	137	A--
GDP	0.034	154	B++	Z3.6 Cost of Labor Force	0.400	145	A--
GDP per Capita	0.862	10	A++	Z4 Hard Environment	0.649	81	A
GDP per Square Kilometer	0.335	25	A++	Z4.1 Basic Elements	0.621	136	A--
Real Economic Growth Rate (5 Years)	0.232	304	C++	Z4.2 Financial Market	0.585	61	A
Employment Rate	0.952	116	A-	Z4.3 The Ability for Innovation	0.536	62	A
Labor Productivity	0.604	39	A+	Z4.4 Market Scale	0.474	45	A+
Number of International Patents	0.128	116	A-	Z5 Soft Environment	0.903	13	A++
Multinational Corporation Score	0.360	33	A+	Z5.1 Market System	0.777	4	A++
Subentry Competitiveness				Z5.2 Market Regulation	0.890	6	A++
Z1 Enterprise Quality	0.940	3	A++	Z5.3 Social Management	1.000	1	A++
Z1.1 Corporate Culture	0.900	14	A++	Z5.4 Public Service	0.557	77	A
Z1.2 Corporate System	0.850	41	A+	Z5.5 Strategy and Experience	0.900	26	A++
Z1.3 Enterprise Management	0.933	21	A++	Z5.6 Paying Taxes	0.851	24	A++
Z1.4 Enterprise Operation	0.685	43	A+	Z6 Living Environment	0.827	66	A
Z1.5 Brand	0.900	12	A++	Z6.1 Natural Environment	0.633	109	A-
Z1.6 Enterprise Performance	0.900	7	A++	Z6.2 Environmental Quality	0.969	28	A++
Z2 Industry Structure	0.698	9	A++	Z6.3 Shopping Environment	0.740	80	A
Z2.1 Manufacturing Development	0.750	30	A++	Z6.4 Dining & Restaurant	0.646	139	A--
Z2.2 Service Industry Development	0.656	30	A++	Z6.5 Housing	0.812	19	A++
Z2.3 Financial Sector Development	0.708	9	A++	Z6.6 Culture and Entertainment	0.488	40	A+
Z2.4 High-Tech Industry Development	0.653	14	A++	Z6.7 Social Security	0.812	73	A
Z3 Human Resource	0.732	87	A	Z7 Global Connectivity	0.456	83	A
Z3.1 Health	0.901	93	A-	Z7.1 Location Convenience	0.532	74	A
Z3.2 Literacy Quality	0.734	52	A+	Z7.2 Land Transportation	0.700	99	A-
Z3.3 Status of the Labor Market	0.444	79	A	Z7.3 Water Transportation	0.000	74	A
				Z7.4 Air Transportation	0.201	44	A+
				Z7.5 Information Connectivity	0.383	82	A
				Z7.6 Residents Connectivity	0.217	54	A+
				Z7.7 Enterprises Connectivity	0.435	28	A++

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