

# Contents

## Part I General Analysis

<b>1</b>	<b>Global Urban Competitiveness Index: Annual Ranking</b>	<b>3</b>
<b>2</b>	<b>Global Urban Competitiveness: Theoretical Framework</b>	<b>15</b>
2.1	Introduction	15
2.2	Determining Mechanism	16
2.2.1	Determining the Competitiveness of a Single City	17
2.2.2	Global Comparison of Urban Competitiveness	18
2.2.3	Changes in Global Competitiveness and Patterns	18
2.3	Conceptual Framework	19
2.4	Indicator System	20
2.5	Research Methodology	20
2.5.1	Definition of a City	20
2.5.2	Sample Cities	22
2.5.3	Data Sources	23
2.6	Evaluation Method	24
2.7	Special Notes	26
	References	27
<b>3</b>	<b>Global Urban Competitiveness: General Analysis</b>	<b>31</b>
3.1	Overall Situation: Rapid Rise of Asian Cities and a Tripod Pattern of Europe, America and Asia	31
3.1.1	Asia: Most Cities are Low in Ranking, with a Small Number Among the Top in the World	35
3.1.2	Europe: Small Gap Between Advanced Cities, with Russian Cities Lagging far Behind	37

3.1.3	North America: US Cities Clearly in the Lead, with Small Gaps Within the Region . . . . .	40
3.1.4	Oceania, South America and Africa: Oceania Ahead of the Pack in Southern Hemisphere and South American Cities Fare Slightly Better than African Cities . . . . .	43
3.2	Relationship Between Economic Development and Urban Competitiveness . . . . .	45
3.3	Urban Competitiveness is a Composite of Economic Scale and Density . . . . .	48
<b>4</b>	<b>Global Urban Competitiveness: Comparative Analysis from Different Perspectives . . . . .</b>	<b>51</b>
4.1	Comparison of the Top 100 . . . . .	51
4.2	Regional Perspective: Top 20 Cities in Asia . . . . .	54
4.3	China versus the United States: Top 10 Cities . . . . .	56
4.4	Political Centers: Competitiveness of Capital Cities . . . . .	60
<b>5</b>	<b>Global Urban Competitiveness: Comparative Analysis of Level-2 Indicators . . . . .</b>	<b>65</b>
5.1	Company Strength . . . . .	65
5.1.1	Summary of Company Strength Index . . . . .	65
5.1.2	Forbes Global 2000 . . . . .	69
5.2	Local Demand . . . . .	73
5.2.1	Summary of Local Demand Index . . . . .	73
5.2.2	Economic Scale . . . . .	77
5.3	Local Elements . . . . .	81
5.3.1	Summary of Local Elements Index . . . . .	82
5.3.2	Patent Index . . . . .	83
5.4	Hardware Environment . . . . .	88
5.4.1	Summary of Hardware Environment Index . . . . .	89
5.4.2	PM2.5 Index . . . . .	91
5.5	Software Environment . . . . .	97
5.5.1	Summary of Software Environment Index . . . . .	97
5.5.2	Crime Rate Index . . . . .	99
5.6	Global Connection . . . . .	103
5.6.1	Summary of Global Connection Index . . . . .	103
5.6.2	Airline Index . . . . .	106
 <b>Part II Topic Report Cities Network Along the Silk Road</b>		
<b>6</b>	<b>Analytical Framework . . . . .</b>	<b>113</b>
6.1	Defining the Silk Road . . . . .	113
6.2	Analytical Framework . . . . .	116
6.2.1	Dimensional Analysis: Cities Network . . . . .	116
6.2.2	Supporting Factors: Hardware and Software . . . . .	118

<b>7</b>	<b>Historical Evolution of the Ancient Silk Road</b>	121
7.1	Development of the Ancient Silk Road	121
7.2	Factors Influencing the Development of the Ancient Silk Road	122
7.3	Development of Major Cities Along the Ancient Silk Road	123
7.3.1	Silk Road on Land: Kashgar, Tehran and Istanbul	124
7.3.2	Silk Road by Sea: Fuzhou, Nairobi and Athens	124
7.4	Influence of the Ancient Silk Road	125
<b>8</b>	<b>Current Development of Silk Road Cities: An Emerging Irregular Cities Network</b>	127
8.1	Development of Cities Along the Silk Road	127
8.1.1	A Visual Presentation: Findings from Night Lights	127
8.1.2	Long-Term Development: Growth and Changes in City Population	128
8.1.3	Patterns and Characteristics of Silk Road City Development	131
8.2	Connections Between Silk Road Cities	135
8.2.1	“Over Head” Connection Is the Main Form of Connection Between Silk Road Cities	135
8.2.2	High Level of Connection Between Major Cities in Sub-Regions and Unbalanced Local Connection	138
8.2.3	Significant Inadequacies in the Breadth and Depth of External Connection of Local Cities	140
8.3	Relationship Between Centrality and Connection of the Silk Road Cities Network	140
8.3.1	Positive Correlation Between Connection and Income Level	141
8.3.2	Economic Density Is the Key Support for Connections	142
8.3.3	Tiered Difference in the Global Connection Between Cities of Different Sizes	142
8.4	Pattern and Characteristics of Silk Road Cities Network	143
8.4.1	Emerging Irregular Network	143
8.4.2	The Middle Section Is Marginalized and the Two Ends Centralized	145
8.4.3	Networks at the Two Ends and Axial Form in the Middle	146
8.5	An Interpretation of the Silk Road Cities Network	147
8.5.1	Impact of Hardware Factors	148
8.5.2	Impact of Software Factors	150

<b>9</b>	<b>Prospects of the Silk Road Cities Network</b>	153
9.1	Opportunities and Challenges	153
9.1.1	Infrastructure Connection	153
9.1.2	Institutional Environment	154
9.1.3	Trade in Goods and Services	155
9.1.4	Flow of Production Factors	156
9.1.5	Development of Industrial Network	157
9.2	Trends and Outlook of the Silk Road Cities Network	158
9.2.1	Development Trends	158
9.2.2	The Changing Landscape: “Three Networks and Four Belts”	160
9.2.3	Global Economic Structure Supported by Silk Road Cities Network	162
	References	164

### Part III Specialized Analysis

<b>10</b>	<b>Global Connection and Technological Innovation</b>	167
10.1	Spatial Distribution and Trends of Innovation Worldwide	167
10.1.1	North America and Western Europe Dominate Global Technological Innovation	167
10.1.2	Clustering Features of Technological Innovation	169
10.1.3	Technological Innovation is Becoming the Benchmark Function of the World Cities	169
10.1.4	Growing Technological Innovation Capability of Hub/Node Cities	170
10.2	Global Connection and Technological Innovation	171
10.3	Global Connection, Creativity Factors and Technological Innovation	172
10.3.1	Global Connection, Creativity Factors, and Technological Innovation	173
10.3.2	Global Connection, Cultural Diversity and Technological Innovation	174
10.4	Global Connection, Market Size and Technological Innovation	175
10.4.1	External Connection Reduces Constraints on Technological Innovation due to Insufficient Market Demand	175
10.4.2	Threshold Feature of Global Connection on Innovation Transformation	177
10.5	Conclusion	179
	References	179

<b>11 Urban Characteristics, National Characteristics and Global Connection of Primate Cities</b>	181
11.1 Introduction	181
11.2 Literature Review	182
11.3 Characteristics of Global Connection Demonstrated by Primate Cities Worldwide	183
11.3.1 Primate Cities with the Best Global Connection at the National Level	183
11.3.2 Economic Scale is a Determinant of Global Connection of a City	184
11.4 Global Connection of Primate Cities of Major Countries	185
11.5 National Characteristics and Global Connection of the Primate Cities	189
11.5.1 Selection and Calculation for Interaction Between Cities: Introduction to Revised Gravity Model	189
11.5.2 Characteristics of Connections Between the Primate Cities of Major Countries	189
11.5.3 Characteristics of Connection Between Primate Cities of Major Economies: King, the Declining Giant, and the Challenger	194
<b>12 Global Connection and Doing Business</b>	197
12.1 Introduction	197
12.2 Comparison of Primate Cities in Doing Business	198
12.2.1 Comparison Based on the Economic Development at Regional Level: The Developed Regions Perform Better than the Developing Regions	199
12.2.2 Comparison Based Urban Development Level: High-Income Cities Outperform Low-Income Cities	201
12.2.3 A Comparison Based on City Size: City Size and the Ease of Doing Business are not Correlated	203
12.2.4 New Findings	204
12.3 Doing Business and Global Connection of Primate Cities	206
12.3.1 Relationship Between Doing Business and Multinational Global Connection of Primate Cities	206
12.3.2 Doing Business and Infrastructure Global Network of the Primate City	210
12.3.3 Comparison of the Relations Between Two Types of Global Connection and Doing Business: There is a High Correlation	213

12.4	Analysis on Reasons . . . . .	214
12.4.1	Reasons for the Weak Correlation Between the Two Types of Global Connection and the Doing Business Index Might have to do with City Characteristics . . . . .	214
12.4.2	Contributor to the Strong Correlation Between Multinational Connection and Infrastructure Connection . . . . .	216
12.4.3	Influential Factors for Doing Business and Global Connection: An Empirical Analysis Based on Multiple Regressions . . . . .	217
12.5	Conclusions . . . . .	218
	References . . . . .	219
<b>13</b>	<b>Large Enterprises in North America: Where They Locate and Why . . . . .</b>	<b>221</b>
13.1	The Setting: The Earlier Period . . . . .	221
13.2	The Setting: The Contemporary Period . . . . .	224
13.3	Decision-Making <i>re</i> Location Today . . . . .	226
13.4	Final Thoughts . . . . .	231
	References . . . . .	233
<b>14</b>	<b>The Conjunction of Networked Agglomeration and Location Factor in Chinese Cities: Taking FDI and Domestic Investment as an Example . . . . .</b>	<b>235</b>
14.1	Introduction . . . . .	235
14.2	Explaining the Urban Agglomeration Process: Location or Network? . . . . .	237
14.3	Data and Methodology . . . . .	240
14.4	Results: Agglomerated Network Patterns and Significant Factors . . . . .	241
14.5	Conclusions and Recommendations . . . . .	260
	References . . . . .	265
<b>15</b>	<b>Competitiveness of the Metropolis in the Global North and South: Economics, Planning, Financing and Governance. . . . .</b>	<b>269</b>
15.1	Intro: Economics and Political Economy . . . . .	269
15.2	Features of an Efficient and Competitive Metropolis . . . . .	271
15.2.1	Physical Characteristics . . . . .	271
15.2.2	Governance Mechanisms . . . . .	273
15.2.3	Metropolitan Governance . . . . .	273
15.2.4	National Governments Taxonomy . . . . .	274
15.2.5	Decentralization and Devolution in a National Unitary System . . . . .	276

15.3	Economics and Political Economy . . . . .	277
15.3.1	Metropolitan Urban Economy . . . . .	278
15.4	Planning and Budgeting Mechanisms . . . . .	280
15.4.1	Strategic Structural and Master Planning . . . . .	280
15.4.2	Institutional Arrangements . . . . .	281
15.4.3	Planning Tools for the Emerging Metropolis . . . . .	282
15.5	Finance Mechanisms . . . . .	283
15.5.1	Metropolitan Finance Arrangements . . . . .	283
15.5.2	Sources of Metropolitan Finance . . . . .	285
15.5.3	Other Financial Management Considerations . . . . .	287
	References . . . . .	289
	<b>Appendix.</b> . . . . .	<b>291</b>

<http://www.springer.com/978-981-10-4833-3>

Cities Network Along the Silk Road

The Global Urban Competitiveness Report 2017

Ni, P.; Kamiya, M.; Ding, R.

2017, XXV, 302 p. 133 illus., 89 illus. in color.,

Hardcover

ISBN: 978-981-10-4833-3