## Best-Performing Cities CHINA 2015

The Nation's Most Successful Economies

Perry Wong and Michael C.Y. Lin



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The Milken Institute Asia Center analyzes the demographic trends, trade relationships, and capital flows that will define the region's future.

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### CONTENTS

Executive Summary1
Introduction5
Overview: China's Economic Development7
Urban strategy for success9
Bigger roles for smaller cities10
Methodology13
Report Findings14
Top 10 Best-Performing Cities China (First- and second-tier cities)
Complete results: First- and second-tier cities
Top 10 Best-Performing Cities China (Third-tier cities)27
Complete results: Third-tier cities
Appendix: Data and Methodology45
Classification and designation of cities45
Data and variables
Methodology in detail46
Endnotes
About the Authors56



## **Executive Summary**

The Milken Institute's inaugural Best-Performing Cities China report delivers a comprehensive and effective data-driven framework for highlighting the economic performance of Chinese cities at prefecture level and above. Our ranking index also traces the detailed factors that contribute to these cities' exceptional economic success in a crowded list of highly competitive cities.

The Institute has long recognized cities and urban regions as an engine of growth for national economies. In 1999, the Institute launched one of its most recognized publications, the annual U.S. Best-Performing Cities ranking, providing an objective measurement of regional economic performance. In 2014, following the establishment of the Singapore-based Milken Institute Asia Center, the Institute developed the first Best-Performing Cities Asia index. This year, we expand the Best-Performing Cities series with this report centered on China. These two regionally focused reports reflect the Institute's belief that Asia and its largest nation will contribute an ever-greater portion of growth to global prosperity in the 21st century.

Over the past 30 years, the Chinese central government's policies have pragmatically guided economic development. Urbanization, industrial clustering, and infrastructure investment have bolstered regional economies and shaped city development into the way it is in China today. As well, these newly formed clusters of cities and regions have become global trading nodes and production centers. They are comparable to and as competitive as any other metropolis in the world. Their performance is relevant not only to the citizens of China but to global economic growth. The recent slowdown of China's economy suggests that a new approach centering on technology, private investment, and consumption (proposed by the World Bank in conjunction with the Development Research Center of the State Council of China) will replace the aforementioned strategy.<sup>1</sup>

Indeed, we release this report against a backdrop of economic volatility in China—with its financial markets in turmoil and its currency devalued. As events continue to unfold, it remains to be seen what the long-term effects and challenges will be. What is certain, however, is that China's economic outlook will continue to be tied closely to the success of its cities. This report, which provides an objective measurement of city/region performance, can highlight the growth opportunities ahead.

For the Best-Performing Cities China rankings, we cast our index based on actual economic performance, rather than projected success. The index considers job and income growth, gross regional product (GRP), and foreign direct investment (FDI), as well as the strength of high value-added industries in each city. Furthermore, recognizing the distinctive characteristics of China's administrative structure as well as other key factors in Chinese urban development, the index provides two categories of rankings: One category comprises first- and second-tier cities, and the other ranks third-tier cities only. This approach provides a more detailed assessment, particularly of the third-tier cities, and sheds light on the factors behind their remarkable growth. These smaller cities' economic success can provide valuable data for academics, policymakers, and businesses to understand the economic growth in China.

### **KEY FINDINGS**

Our analysis reveals that cities with the most dynamic economies have these factors in common: diversified industries, a focus on high-tech, improved transportation networks, continued efforts to develop infrastructure and the talent pool, and the ability to attract foreign investment. Highlights of the report:

- » Chengdu is a strong No. 1 among first- and second-tier cities. Its outstanding performance is unrivaled: The capital of Sichuan Province secured Top 10 positions in seven of the index's nine components, more than any other city. What drives Chengdu's recent success? In a nutshell, human capital, central government support, established industries in high-end aerospace and aircraft design, and a more recently developed electronics manufacturing sector.
- » With the exception of Chengdu and nearby Chongqinq (No. 9), the Top 10 in the large-cities group are located on or near the east coast, with easy access to global markets. Many are part of the urban clusters of the Yangtze River Delta, the Pearl River Delta, and the Jing-Jin-Tang. China's development has largely been driven by government policy and urbanization, but the future will depend on the development of urban clusters and small and medium-sized cíties. Thus far, wealth is concentrated in the coastal regions, while inland China still possesses great potential for growth.
- » Jiangsu Province dominates in the Top 10 third-tier cities, with Suzhou at No. 1. Seven of the Top 10 best-performing third-tier cities are in this coastal province, and all part of the Yangtze River Delta economic zone. They have benefited from Shanghai's proximity, as well as an influx of talent and technologies.
- » The remaining three cities in the Top 10 third-tier cities—Qingyang, Ji'an, and Yichang—are inland but all serve as transition points between western and coastal China. The majority of the Top 10 cities in this group fared well in our index components for recent job and wage growth. This indicates that their lower business costs, larger market potential, and strategic locations may all together explain their recent economic success.

Table 1. Best-Performing Cities China 2015			
Rank	First- and second-tier cities	Rank	Third-tier cities
1	Chengdu, Sichuan (四川省, 成都市)	1	Suzhou, Jiangsu (江苏省, 苏州市)
2	Shanghai (上海市)	2	Nantong, Jiangsu (江苏省, 南通市)
3	Tianjin (天津市)	3	Yangzhou, Jiangsu (江苏省, 扬州市)
4	Dalian, Liaoning (辽宁省, 大连市)	4	Suqian, Jiangsu (江苏省, 宿迁市)
5	Nanjing, Jiangsu (江苏省, 南京市)	5	Taizhou, Jiangsu (江苏省, 泰州市)
6	Hefei, Anhui (安徽省, 合肥市)	6	Qingyang, Gansu (甘肃省, 庆阳市)
7	Xiamen, Fujian (福建省, 厦门市)	7	Changzhou, Jiangsu (江苏省, 常州市)
8	Changchun, Jilin (吉林省, 长春市)	8	Wuxi, Jiangsu (江苏省, 无锡市)
9	Chongqing (重庆市)	9	Ji'an, Jiangxi (江西省, 吉安市)
10	Shenzhen, Guangdong (广东省, 深圳市)	10	Yichang, Hubei (湖北省, 宜昌市)







## Introduction

Recognizing cities as the growth engine of regional economy, the Milken Institute has published an annual ranking for Best-Performing Cities in the United States since 1999. In 2014, the Institute initiated a ranking for Best-Performing Cities Asia. With China's profound economic transformation and surging urbanization process over the past few decades, we now introduce the Best-Performing Cities China index to capture the economic dynamics of Chinese cities.

The goal of this ranking index is threefold. First, it can help businesses, investors, industry associations, government officials, development agencies, academics, and public-policy groups monitor and evaluate the economic performance of cities where they work and do business. Second, it suggests approaches to improving cities' performance. Third, the index provides a venue to explore relatively untapped markets and business opportunities.

Although many comparative analytical studies and ranking reports have evaluated the economic growth and competitiveness of Chinese cities, most thus far have lumped the cities together in conventional rankings, regardless of distinctive characteristics such as size, geography, administrative level, and municipal hierarchy. In China, these key factors present a need to differentiate cities to measure economic performance more accurately. In particular, the country's first- and second-tier cities are typically more populous than others, have advantageous locations, and receive various supports from the central government.

Our report captures the economic performance of Chinese cities in several distinctive ways. First, it emphasizes the combined effect of short (one-year) and intermediate (five-year) terms of job, wage, and gross regional product (GRP) variables. Second, it focuses mainly on outcome measures, rather than input growth factor analytics. Third, it takes into account foreign direct investment as well as a location quotient (LQ) for "high value-added" industries, measuring skilled and educated employment that would help promote sustainable economic development over time. A city's LQ compares its share of industrial specialization relative to that of all cities included in our report. Fourth, it categorizes the cities into groups that reflect China's administrative efforts and pragmatism in the process of economic development.

By ranking the third-tier cities separately, the index recognizes that this group of cities tends to have lower business operating costs, a lower status of economic development, and untapped business opportunities. We believe that the regional development policies and efforts under China's "new normal" will address these regional imbalances in the future. "New normal" describes the new economic conditions and growth orientation in development. Specifically: rate of growth is moderate at 7 percent; market forces (rather than policy) determine growth, while policy enhances performance; the service sector and consumption will be the growth engine. The magnitude of economic performance will depend on the expansion of consumption and the service sector—a component of "high value-added." What the high value-added component as an indicator represents is a measure of cities' pace of expansion in the future.

The report's ranking reflects our belief that sustainable social and economic development relies fundamentally on three pillars: human capital, job creation, and access to capital. Our ranking focuses on knowledge-based economic growth that requires the build up of human capital, the creation of jobs with longevity, and investments that best elevate regional development and living standards. We believe that the next stage of economic development in China under the new strategies and policies will bring rapid changes to the regional landscapes to which people in China and the rest of the world are accustomed. In contrast to the export-driven model, the next generation of China's regional development will have an emphasis on the environment, domestic market development (including financial markets), and high technologies.



## **Overview: China's Economic Development**

After more than three decades of high growth at approximately 10 percent per decade, China's economic expansion has moderated in the last three years, decelerating substantially to 7.4 percent in 2014. It was the slowest growth period since 1990. As shown in Figure 2, the growth momentum had been trending downward since 2010 as the effects of the financial crisis and economic stimulus package began to wind down. Key "conventional" economic growth drivers that powered China's miracle growth since the nation's opening in 1981—such as heavy reliance on exports of manufactured commodities, massive government-driven fixed investment, and rapid housing construction—have lost some of their luster.



Sources: World Bank's World Development Indicators for China; Milken Institute.

According to the National Bureau of Statistics of China, in 2014, property investment growth increased only 10.5 percent on a year-over-year basis and continued to slide in the first half of 2015 to 6 percent. Another key contributor of growth, exports of manufactured goods, grew only 6.1 percent in 2014, substantially below the average annual growth of 9.8 percent from 2008 to 2014. Government-led investment has been the most significant driver of growth, contributing 48 percent of GDP growth in 2014. While long considered a reliable and convenient policy tool to boost the economy when needed, such investment is no longer a clear option as local governments face fiscal constraints. Hence, despite its sheer size, its efficacy has been deteriorating and overinvestments also have resulted in overcapacity in the economy.<sup>2</sup>

What has weakened these pillars of economic growth? Primarily, it has been a combination of lackluster global markets, the softening of Chinese competitiveness in the manufacturing sector, and apparent changes in China's economic and development policies in the last three years. As the current leadership in Beijing declared in 2014, China's economic growth and social development will operate under a "new normal" in the future, in contrast to the "conventional or normal" approach in the past. Although the government has not definitively laid out the details of the new normal, such a policy calls for lower economic growth targets with more emphasis on the quality of growth. This would mean greener and fairer social policies; government-led investment paving the way for market-driven private investments; consumption as the driver of future growth; and developing and reinforcing the domestic growth of service sector, high technology, and environment-friendly industries.

Clearly, the Chinese economy is in transition, migrating from the government-led "high input" and "high output" industrialization and urbanization stage to a "smarter input" and "moderate highquality output" environment whereby knowledge-based economic development, policy flexibility, and high-technology contents are the core. Under this emerging model, the Chinese economy will be closer to the market economy than it has been. It is in this context that the Milken Institute initiates the Best-Performing Cities China index.

Human capital, job creation, and access to capital are the key components for sustaining long-term growth among economies globally. In the new normal, as market forces in China drive investment and growth, Chinese cities will need to rely more on local endowments to attract growth opportunities and compete with one another. Geography (i.e., the location of a city) is an important factor that influences growth; however, factors that can spur and sustain entrepreneurial growth—such as abundant skilled labor, a robust job market, and the availability of capital—are universally proven to be critical in developing a knowledge-based, innovation-driven, and high-tech economy.

China's development to date has largely been driven by government policy and urbanization, but the future will depend on the development of urban clusters and small and medium-sized cities. Thus far, wealth in China is concentrated in the coastal regions, while inland China still possesses great potential for growth (Figure 3). How will the new normal alter China's urbanization patterns and industry cluster building in the future? What will the cities' economic performance be like under the new conditions? How will different tiers of cities drive China's regional economy?





### **URBAN STRATEGY FOR SUCCESS**

In the last three decades, urbanization and industry clustering have driven China's storied economic performance. These key drivers altered the economic future of 1.3 billion people and fundamentally shaped China's industrial capability amid changing global and domestic conditions. Under the new normal, urbanization and industrialization will continue. In fact, they are part of the plans of the 17th National Party Congress and the 12th National People's Congress as a means to cultivate economic growth. However, the government can still change the organization and the resource allocation of large cities and small, prefecture-level cities within an urban cluster to align with new development guidelines and requirements.

The planning for the development of urban special activities and industry building has been an iterative process since the founding of the People's Republic of China through its numerous sequential five-year plans. The power of regional planned growth has been astounding. In the last three decades, China has nurtured, enhanced, and built three urban clusters: the Yangtze River Delta, the Pearl River Delta, and the Jing-Jin-Tang. All three are along the east coast of China, with easy access to the global market. As such, these three urban clusters combined make up only 3.3 percent of the land mass and 15 percent of total population of China but contributed more than 40 percent of the nation's GDP in 2006.<sup>3</sup> In each of these clusters, many third-tier cities fall within the sphere of the largest central cities. In the Pearl River Delta, for example, Guangzhou, Shenzhen, and Hong Kong are the three hubs, but their sphere of influence covers at least nine other small cities, including Dongguan and Foshan.

Further inland, Chengdu—the No. 1 top-tier city in our index—is the lead city of the central government's Go West development initiative, which aims to bring new infrastructure, high-tech jobs, and higher growth to the Greater Western region of China. Chengdu is the co-axis of the Chengdu-Chongqing urban cluster (Chongqing ranks No. 9 in our index). If development in the Greater Western follows as planned, Chengdu would serve as the hub, with radial growth extending to medium and smaller cities alike in the region.



Sources: 2007 and 2014 Jiangxi Statistical Yearbook; Milken Institute.

As reform deepens in China, rapid and cumulative wealth building and domestic consumption are expected to lead a new stage of growth in the country. The new normal calls for future development to be less export-dependent. Hence, domestic-focused development will enable the Chinese government to redirect resources to encourage or revive old industrial bases that have fallen behind in the last 30 years. The city of Changchun in the northeast, for instance, was once the most important industrial base before China's opening and the state-owned-enterprise reform in 1990s. Its economic performance was shattered for almost 20 years as China directed resources to develop export-oriented regions along the east coast. The city has since come back, and it ranks among the Top 10 in our index. Along similar lines of planning, the new normal will also try to develop the Chinese economy more equitably among regions. Typically, the coastal regions enjoy more economic benefits than do the inland regions, and their income differential has increased in the past few decades. For instance, the income gap between inland Jiangxi Province and coastal Shanghai City has widened in the past decade or so (Figure 4). The existing regional imbalances in quality of living, job opportunities, and income will be addressed, which imply that inland regions will likely have resource and preferential policies for urban clustering in the near future.

### **BIGGER ROLES FOR SMALLER CITIES**

After three decades of reform and rapid economic expansion, China has moved more than 500 million people into urban settings, and urbanization itself increased in the nation from below 20 percent in the 1970s to 54 percent in 2014.<sup>4</sup> The pace of urbanization has been about 0.9 percent per year. In the last few decades, this process has resulted in a vast migrant-labor population. About 260 million such migrants now live and work in urban centers but without proper resident permits.<sup>5</sup> Many face tremendous social and economic challenges. Chief among them are the lack of proper housing and limited access to homeownership and even education.

According to the World Bank, only 10 percent of migrants have secured homeownership in the cities.<sup>6</sup> Prohibitive city ordinances and unaffordable dwelling units prevent most from attaining quality urban living. Hence the *hukou* reform, which as part of the new policy directives will address both social and economic needs of many urban communities. Decades have passed since the first wave of migrants into the large cities in the early 1980s. It is difficult to assess whether these migrants will call the large cities they helped build "home" or move to smaller cities near their hometowns. In any event, such a large population at over 200 million strong can have a significant economic impact on health, education, housing, and professional services in large cities and small towns in China.

The new normal does offer a glimpse of what city and regional development will look like in the future. According to the report "Urban China" by the World Bank and the Development Research Center of the State Council of China, city and regional building must be efficient, inclusive, and sustainable.<sup>7</sup> That is, urbanization and clustering should be economically efficient in use of resources; specialization will overtake the integrated approach of "having it all" under one city sky, which is still a prevailing development method in the largest cities in China. This conceptual change will help guide and promote the small and medium-sized cities to develop according to their endowment of resources. The third-tier cities in China will be able to specialize in ways that either compete with or complement their nearest larger city. In our ranking, several third-tier cities in the three large urban clusters in China performed exceptionally well. Suzhou, for instance, is ranked at the top.

Currently, China's urbanization policy and existing development modes favor the largest cities' agglomeration and growth. The development gaps between large central cities and smaller thirdtier cities are wide. For cheaper locations, enterprises that require large parcels of land tend to relocate to small cities close to the larger central cities. This hierarchy usually develops over time, but governments in China expedite the process by administratively relocating enterprises away

10

from central-city locations. As a result, the third-tier cities with closer linkages will experience faster growth than the central largest cities.

While this report focuses on those "best" performers, it also reveals the commonality among bottom-ranked cities. By and large, regardless of the tiers of cities, the weakest performers in the index are located in the north and west parts of the country. Most fared poorly in the index's nine indicators: The majority ranked in the bottom 25-percent to 50-percent quartile range, particularly in the indicators for five-year job growth, five-year wage growth, and the location quotient (LQ) for high value-added industry jobs (2013). The three-year growth in foreign direct investment (FDI) is the only indicator in which these cities performed relatively well, probably owing to their market potential. It should be noted, however, that this growth could be accounted for by their low base in this indicator.



## Methodology

The Milken Institute Best-Performing Cities China index sorts 266 Chinese cities into two groups: the largest-cities group, with 34 first- and second-tier cities; and the small- and medium-sized group, with 232 third-tier cities. The two groups are ranked separately based on economic performance. The index measures growth in jobs, wages, and per-capita gross regional product (GRP) over one-year (2012-2013) and five-year (2008-2013) periods. The one-year measurement is intended to capture the most recent economic dynamics, while the five-year measurement attempts to adjust for extreme variations in the recent business cycle. Moreover, this index takes into account the actual use of foreign direct investment (FDI) during the 2010-2013 period and its share over GRP. In addition, it incorporates the location quotient (LQ) for high value-added industry employment in 2013. High value-added industry is typically considered a major driving force for the future growth of a local economy and is defined as the sectors of manufacturing; transport, storage and post; information transmission, computer services and software; financial intermediation; real estate; and leasing and business services. Table 2 lists the nine indicators used to construct the index and their respective weights. Recent theoretical and empirical work suggests that both FDI and high value-added industries play critical roles in bolstering China's economy, and hence these indicators are more heavily weighted in this index.

Table 2. Components of the Best-Performing Cities China Index		
Indicator	Weight	
1-year job growth (2012-2013)	0.100	
5-year job growth (2008-2013)	0.100	
1-year wage growth (2012-2013)	0.100	
5-year wage growth (2008-2013)	0.100	
1-year GRP per-capita growth (2012-2013)	0.100	
5-year GRP per-capita growth (2008-2013)	0.100	
3-year FDI growth (2010-2013)	0.125	
FDI/GRP (2013)	0.125	
LQ for high value-added industry employment (2013)	0.150	

For some cities, there were discrepancies and abnormalities in the 2013 data, particularly in Guangdong Province. Some abnormalities are due to the change of counting methods or reclassification resulting from policy changes, while the cause of others cannot be identified. To better reflect the current urban developmental status and economic trends, some data adjustments were made in order to construct the index in a consistent way. The Milken Institute adopts a method (based on weighted z-scores) that differs from the method used for our Best-Performing Cities series for the United States and Asia given that the alternative method yields more consistent ranking results that better describe the economic development of Chinese cities for our study periods. For more details regarding data and methodology, see the Appendix on page 45.

## **Report Findings**

# Top 10 Best-Performing Cities China (First- and second-tier cities)

117

## Chengdu, Sichuan

1-year job growth (2012-2013)	<b>1</b> ST
5-year job growth (2008-2013)	<b>2</b> ND
1-year wage growth (2012-2013)	<b>4</b> TH
5-year wage growth (2008-2013)	<b>9</b> TH

1-year GRP per-capita growth (2012-2013)	<b>13</b> TH
5-year GRP per-capita growth (2008-2013)	<b>4</b> TH
3-year FDI growth (2010-2013)	<b>7</b> TH
FDI/GRP (2013)	<b>2</b> ND
LQ for high value-added industry employment (2013)	<b>24</b> TH

**CHENGDU**, the capital of Sichuan Province, tops the list of first- and second-tier cities. Its outstanding performance in our index is unrivaled, with the city securing Top 10 positions in seven of the nine components. What drives Chengdu's recent success? In a nutshell, human capital, central government support, and established industries in high-end aerospace and aircraft design, and a more recently developed electronics manufacturing sector.

Chengdu's inland location, proximity to the Yangtze River, and mountainous topography have made this central Chinese city the cradle of military manufacturing. Over the years, with its geographic advantages and industrial base, Chengdu has served as a growth engine driving the economic development of its neighboring regions. And on a global scale, it has also become a gateway for countries seeking a foothold in Chinese markets. These factors make Chengdu likely to remain an economic powerhouse in the next wave of China's economic development.

In recent years, Chengdu has been recognized as one of the China's, and even the world's, fastestgrowing cities. As of 2013, its population numbered approximately 14 million.<sup>8</sup> The city's rapid pace of growth and exceptional performance are reflected in our indicators. Out of the nine components of our index measuring all 266 cities, Chengdu placed in the Top 10 in seven of the variables: one-year job growth, five-year job growth, one-year wage growth, five-year wage growth, five-year GRP per-capita growth, three-year FDI growth, and FDI/GRP.

Chengdu is known as one of the four main "science and education" bases in China.<sup>9</sup> Most of Sichuan Province's colleges and universities are concentrated in Chengdu,<sup>10</sup> providing local industries with a talented labor pool. In addition, government policies have provided key support. The Go West campaign, launched in 2000 by the central government, seeks to bring development to the country's mountainous interior and bridge the economic gap between the coastal and western regions of

China. By providing tax and investment incentives to both foreign and domestic firms, this policy equips Chengdu with a lower-cost advantage over its coastal counterparts. Also, the Great Western Development Strategy, an industrial policy derived from the Chinese legislature's 12th Five-Year Plan (2011-2015), furthers Chengdu's aspiration to set its development trajectory higher.

Under this strategy, Chengdu is to become a center of science and technology, high-end manufacturing, commerce, and finance in the Greater Western region of China. As planned, the city will continue to broaden its current industry base to include automobiles, biopharmaceuticals, information technology, logistics, new energy, new material, and petrochemicals. Chengdu's economic ascent is built on decades of consistent planning and implementation, establishing a number of industrial parks to house diverse industries. For example, the Chengdu Economic and Technological Development Zone-established in 1990 and designated as a national development zone in 2000-features industries including automobiles and auto parts, machinery, electronic information, new building materials, pharmaceuticals, and food processing.<sup>11</sup> To further nurture the science and technology industry, the central and local governments set up the Chengdu Hi-Tech Industrial Development Zone in 1988 and the Tianfu Software Park in 2005, offering a number of preferential tax rates and policies to attract more high-tech companies to Chengdu. In 2014, the State Council approved the creation of Tianfu New Area, which focuses on the advanced manufacturing industry, the high-end service industry, and modern urban agriculture. In addition, Chengdu's inland location and topography are decisive advantages for making it an exclusive base for military aircraft factories. Chengdu Aircraft Industry Group, the leading designer and producer of China's most advanced military jets in the past few decades, will continue to expand in that location.

Chengdu has also benefited from the inflow of foreign investment. By the end of December 2013, over half of Fortune 500 companies, which include IBM, Intel, and Microsoft, had a presence in Chengdu.<sup>12</sup> In addition, driven by incentives (e.g., preferential lending and tax treatment), relatively lower labor cost, and the high growth market in China's west, auto companies such as Volvo have in recent years built factories in Chengdu. By the end of 2014, Chengdu was home to 21 automakers and 246 auto-parts companies. The automotive industry in Chengdu employed more than 80,000 people.<sup>13</sup> The expansion of transportation infrastructure also reflects Chengdu's ambition to lure more international businesses. Chengdu also has recently received funds to build a new airport to complement its existing Shuangliu Airport, the fifth-busiest airport in the country.<sup>14</sup> Lastly, under the new One Belt, One Road strategy, Chengdu has also opened a railway line that connects the city to Poland and carries freight to Europe in just 12 days.<sup>15</sup>

#2 Shang	hai
1-year job growth (2012-2013)	<b>17</b> TH
5-year job growth (2008-2013)	<b>9</b> TH
1-year wage growth (2012-2013)	<b>11</b> TH

5-year wage growth (2008-2013)

**6** TH

1-year GRP per-capita growth (2012-2013)	<b>2</b> ND
5-year GRP per-capita growth (2008-2013)	<b>16</b> TH
3-year FDI growth (2010-2013)	<b>18</b> TH
FDI/GRP (2013)	<b>8</b> TH
LQ for high value-added industry employment (2013)	<b>2</b> ND

Shanghai secures the second position in our index ranking, showing particular strength in several growth categories as well as high-value added employment. It placed in the Top 10 in five of the indicators. By far, Shanghai has had one of China's most successful economies in the past two decades, returning the city to global prominence.

Designated administratively as one of four municipalities and one of five National Central Cities, Shanghai is a financial capital and one of the most populous Chinese cities, with over 24 million people in 2013.<sup>16</sup> The fishing village-turned-port city has been a hub for foreign trade since its founding in the 19th century. Fast-forward to the 1960s and 1970s, and Shanghai accounted for about 30 percent of China's total exports.<sup>17</sup> However, by the 1980s, its role as a manufacturing and export base was severely challenged by the industrial expansion of other parts of China.<sup>18</sup>

A series of open-door policies and initiatives by the central and local governments in the 1980s and 1990s decisively pulled Shanghai out of its downward spiral. The Comprehensive Plan for Shanghai, approved by the Chinese central government in 1985, restructured the city's layout by anchoring tertiary industries in the urban core and traditional industries in suburbs.<sup>19</sup> Moreover, guided by the "socialist market economy" formed in 1992 and the National People's Congress' Eighth Five-Year Plan (1991-1995), Shanghai has transformed itself from a traditional industrial economy into a tertiary economic base.<sup>20</sup> Shanghai's tertiary industry gross domestic product (GDP) share of total GDP rose steadily over the decades: 21.1 percent (1980), 30.9 percent (1990), 52.1 percent (2000), 57.6 percent (2010), to 62.2 percent (2013).<sup>21</sup> All this has helped fuel Shanghai's job and wage growth in the last five years, as reflected in those particular indicators in our ranking.

Despite the dominance of its tertiary industries, Shanghai still has a broad industry base. Shanghai is home to commercial aviation design<sup>22</sup> and one of largest shipbuilding bases in the nation.<sup>23</sup> The Eighth and Ninth five-year plans listed automobile, biomedics, electronic and telecommunications equipment, household appliances, iron and steel, microelectronics and computing, new materials, petrochemicals and fine chemical processing, power station equipment and parts manufacturing as the pillar industries for Shanghai.<sup>24</sup> To further nurture industrial development, a number of industrial clusters have emerged, such as Caohejing Hi-Tech Park and Shanghai Chemical Industry Park. One of the most significant additions in the city's economic development is the establishment in the early 1990s of the Pudong New Area, which has reinforced Shanghai's role as a commercial and financial center of China. The establishment of China (Shanghai) Pilot Free Trade Zone in 2013 demonstrates the city's latest ambition to foster economic growth and most importantly establish the city as a global financial center.

Furthermore, the Shanghai Stock Exchange (linked with the Hong Kong Stock Exchange) has allowed citizens and companies in China to gain access to foreign stocks and securities. This has facilitated the flow of capital in both Chinese and global markets and has strengthened the role of Shanghai as one of the major financial centers in the world.

The inflow of investment<sup>25</sup> and the complete transportation networks that include highways, buses, light rail, railways, ports, and airports have also contributed to Shanghai's economic success. In particular, the opening of the high-speed railway in 2011 has enormously reduced the commuting time between Shanghai and Beijing as well as other cities in China and is deemed a new driver of Shanghai's economic development. With government support, investment inflow, and infrastructure, the per-capita GDP in U.S. dollar terms has grown 2.6 and 2.8 times during the 1990-1999 and 2000-2009 periods, respectively.26 The per-capita GDP of Shanghai reached US\$14,547 in 2013.27 Shanghai's growing income level in the past few decades has made it one of the wealthiest cities in China, and it ranks second in one-year per-capita GRP growth.

#3 Tianjin
1-year job growth (2012-2013)
5-year job growth (2008-2013)
1 year ware growth (0010,0010)

5-year jub growth (2006-2013)	13
1-year wage growth (2012-2013)	<b>13</b> TH
5-year wage growth (2008-2013)	<b>14</b> TH

24 TH

**Tianjin** takes third place in our index. The city's wide range of industries and its development as a financial and industrial center over the last 20 years have bolstered the local economy. In our index, Tianjin scored particularly well in two growth categories in our index, for short- and long-term per-capita GRP growth, and placed third in FDI/GRP.

With a population of close to 15 million people,<sup>28</sup> Tianjin is one of the four municipalities directly governed by the Chinese central government and one of the five National Central Cities. Historically, its proximity to Beijing and the Bohai Sea as well as a concession to several foreign countries between 1860 and 1945 have helped Tianjin become a financial, commercial, and industrial center in northern China. However, its closeness to Beijing has also worked against Tianjin, with nearby competition from the capital city compromising Tianjin's economic development.<sup>29</sup> In the mid-2000s, however, the Chinese central government implemented ambitious industrial and urban development plans that forever changed Tianjin's economic trajectory. In addition, Tianjin was chosen as the lead in developing the Jing-Jin-Tang (Bohai) Urban Clusters in the 11th (2006-2010) and 12th (2011-2015) five-year plans. With this shift in national priorities and resources to urbanization and industry building, the city began to thrive.

As in many other cities in China, Tianjin has also developed industrial parks to bolster its economy. One example is the Tianjin Economic-Technological Development Area (TEDA), which consists of nine key industrial sectors: automotive, aviation, biopharmaceuticals, equipment manufacturing, food and beverage, modern service, new energy and new materials, petrochemicals, and telecommunication.<sup>30</sup> TEDA is also home to China's National Supercomputing Center.<sup>31</sup> The commercial aviation and aerospace industry is a particularly strong area for Tianjin. In 2008, Airbus established its A320 final assembly line in Tianjin

1-year GRP per-capita growth (2012-2013)	<b>4</b> TH
5-year GRP per-capita growth (2008-2013)	<b>2</b> ND
3-year FDI growth (2010-2013)	<b>16</b> TH
FDI/GRP (2013)	<b>3</b> RD
LQ for high value-added industry employment (2013)	<b>7</b> TH

in collaboration with the Tianjin Free Trade Zone and China Aviation Industry Corp.<sup>32</sup> Tianjin is also the manufacturing base for China's Long March rockets.

In 2008, Forbes dubbed Tianjin the "New Wall Street" in China,<sup>33</sup> and a number of banks have recently settled in the city's Fifth Avenue area. Tianjin's development as a financial center has been fueled largely by the Binhai New Area. Established in 1994, Binhai is a base for the financial and industrial sectors and is regarded by the 11th and 12th five-year plans as critical to national development. In recent years, Tianjin has also become a hot spot for the financial leasing industry in China.<sup>34</sup> As well, Tianjin is a laboratory for financial innovation. In 2013, it was among the first Chinese cities to launch a carbon emissions trading market and is the home to the Tianjin Climate Exchange.

With its advantageous location, Tianjin has long been a platform for port-related businesses. In 2012, the Port of Tianjin ranked fourth in terms of the cargo throughput in the world.<sup>35</sup> Tianjin also specializes in large-vessel shipbuilding. In April 2015, the China (Tianjin) Pilot Free Trade Zone was established, consisting of the Tianjin Airport Economic Zone, the Dongjiang Free Trade Port Zone, and the Binhai New Area Central Business District.<sup>36</sup> In addition, August 2008 saw the opening of the Beijing-Tianjin Intercity Railway, which connects Tianjin to Beijing in approximately half an hour. However, the exacerbation of traffic congestion has the potential to compromise Tianjin's economic development.<sup>37</sup>

Looking ahead, the economic slowdown in China as a whole presents a challenge for Tianjin's development. In the Binhai New Area, which was regarded as the growth engine for the city, high vacancy rates for office high-rises due to overexpansion in the past few years created a new "ghost town" in China.<sup>38</sup> In addition, the recent explosive fires at chemical warehouses that devastated this area may hold up the near-term growth of this port city.

18



1-year job growth (2012-2013)	<b>12</b> TH
5-year job growth (2008-2013)	<b>24</b> TH
1-year wage growth (2012-2013)	<b>16</b> TH
5-year wage growth (2008-2013)	<b>18</b> TH

1-year GRP per-capita growth (2012-2013)	<b>16</b> TH
5-year GRP per-capita growth (2008-2013)	<b>18</b> TH
3-year FDI growth (2010-2013)	<b>22</b> ND
FDI/GRP (2013)	<b>1</b> ST
LQ for high value-added industry employment (2013)	<b>5</b> TH

**Dalian** places fourth in our ranking. An important seaport city in northeast China, Dalian's focus on developing foreign trade and encouraging foreign investment has been yielding results. It ranked first among all Chinese cities in FDI/GRP in our index and placed fifth in the indicator for LQ for high valueadded industry employment, reflecting its economic transformation from a heavy-industry base into a more diverse, high value-added economy.

Positioned at the tip of a peninsula surrounded by the Bohai and Yellow seas, Dalian has a population of approximately 5.9 million.<sup>39</sup> It is a traditional center of heavy industry in Liaoning Province, with an industrial history that can be traced back to the Japanese occupation in the first half of 20th century and to Maoist central planning.

In the mid-1980s, the development of modern Dalian sped up. It was designated in 1984 as an "open city" with access to foreign investment, knowledge, technology, and markets, and Dalian was granted more economic planning autonomy by the central government. Several industrial clusters such as the Dalian High-Tech Industrial Zone (DHIZ) and the Dalian Economic and Technological Development Zone (DETDZ) were formed. DETDZ is one of the first national economic and technological development zones in China.<sup>40</sup> The establishment of various industrial clusters has also diversified Dalian's economic structure. Currently, Dalian's major industries include automobiles, electronics and information technology, equipment manufacturing, petrochemicals, and shipbuilding.

Its location has certainly been an advantage in global trade and attracting foreign investment. In 1992, the Dalian Free Trade Zone was established and it was the only free-trade zone in northeast China<sup>41</sup> before the opening of the China (Tianjin) Pilot Free Trade Zone earlier this year. Dalian is also a regional financial center. To further develop the financial industry, Xiaoping Island Financial Headquarters Base was established in DHIZ. Dalian Wanda Group, China's largest commercial real estate developer,<sup>42</sup> was founded in Dalian.

## Nanjing, Jiangsu

1-year job growth (2012-2013)	<b>2</b> ND
5-year job growth (2008-2013)	<b>4</b> TH
1-year wage growth (2012-2013)	<b>1</b> ST
5-year wage growth (2008-2013)	<b>2</b> ND

**Nanjing** holds fifth place in our ranking, thanks mainly to impressive job and wage growth. A major manufacturing center, the economically vibrant city is home to several key development zones and industrial parks. It also has been making a concerted effort to establish itself as a talent base.

The capital of Jiangsu Province, with a population of 8.2 million in 2013,<sup>43</sup> Nanjing literally means "southern capital," and it was the capital of both the Ming dynasty and, later, the Republic of China until 1949. Given this history, it's no surprise that Nanjing has extensive transportation networks and a strong economic base. Its proximity to Shanghai has also helped attract foreign businesses.<sup>44</sup> However, the rapid growth in recent years of other Jiangsu cities (Suzhou in particular) has weakened the economic dominance of this ancient city.

Despite these challenges, Nanjing's economy is well and thriving. Recently, it was bolstered by the opening of the high-speed rail lines connecting it with major cities such as Beijing, Shanghai, and Chengdu. In 2008, it was ranked the top manufacturing center in China.<sup>45</sup> In 2013, the secondary industry in Nanjing accounted for about half of the employment.<sup>46</sup> Biopharmaceuticals, electronics, information technology and software, iron and steel, new energy, new materials, and petrochemicals are the major industrial groups in this city.

In order to strengthen the existing industrial base while developing new industries, Nanjing has established several economic zones and industrial parks: Nanjing New and High Technology Industry Development Zone (or Nanjing High-Tech Zone), Nanjing Economic and Technological Development Zone, Nanjing Jiangning Economic and Technological Development Zone, and Nanjing Chemical Industry Park. The Nanjing High-Tech Zone was named the Best Development Zone for Investment by Multinational Corporations by the United Nations

1-year GRP per-capita growth (2012-2013)	<b>8</b> TH
5-year GRP per-capita growth (2008-2013)	<b>17</b> TH
3-year FDI growth (2010-2013)	<b>20</b> TH
FDI/GRP (2013)	17 TH
LQ for high value-added industry employment (2013)	<b>10</b> TH

Global Compact.<sup>47</sup> In addition, Nanjing has been a hub for car manufacturing in China. The Changan Ford Mazda Automobile Co. and Volkswagen inaugurated their car manufacturing plants in Nanjing in 2007 and 2008, respectively.<sup>48</sup> In 2014, enticed by tax and administrative benefits, LG Chem announced a plan to build an electronic-vehicle battery plant in Nanjing, and it is expected to begin operation at the end of 2015.<sup>49</sup>

Nanjing has recently attempted to craft itself as a talent base. Xianlin University Town, which was established in 2002, now comprises 12 universities and colleges and accounts for roughly 8 percent of all college students in Jiangsu Province.<sup>50</sup> In 2010, Carnegie Mellon University and the Nanjing University of Science and Technology partnered to offer a joint master's program in robotics technology. In 2011, in conjunction with the central government's international talent initiative, Nanjing initiated the 1,000 Talents Program to attract foreign experts to universities and research institutions.<sup>51</sup> This initiative program aims to help Nanjing develop its talent base and nurture its high-end manufacturing and research and development bases, making it more competitive against mega-cities such as Shanghai.



5-year job growth (2008-2013)	<b>3</b> RD
1-year wage growth (2012-2013)	<b>3</b> RD
5-year wage growth (2008-2013)	<b>1</b> ST

1-year GRP per-capita growth (2012-2013)	23 RD
5-year GRP per-capita growth (2008-2013)	22 ND
3-year FDI growth (2010-2013)	23 RD
FDI/GRP (2013)	<b>22</b> ND
LQ for high value-added industry employment (2013)	25 TH

**Hefei** takes sixth place in our index. The capital city of Anhui province has posted robust job and wage growth figures, ranking No. 1 in the indicator for fiveyear wage growth. Hefei's economic success can be largely attributed to its lower costs for business operation, central geographic location, and improved infrastructure.

Hefei, which now has a population of 7.6 million,<sup>52</sup> was the fastest-growing city in China in the 2010 Economist Magazine China Summit.<sup>53</sup> It is also considered one of China's four main "science and education" bases.<sup>54</sup> All this is a far cry from the ancient city's historical roots—for centuries, Hefei endured as a poor city. That began to change over the last two decades, as concerted urbanization efforts altered the city's landscape as well as the fortunes of it residents.

With rising operating costs in cities around the Yangtze River Delta and the coastal area of China, many businesses and manufacturers are drawn to alternative locations like Hefei that offer lower costs. In addition, as part of the Yangtze River economic cluster,55 Hefei serves as a conduit between the coastal and inland areas of China. The opening of the bullet train lines in 2011, in particular, have tremendously improved Hefei's access to major cities such as Beijing, Shanghai, Guangzhou, and Chengdu. Like many other cities in China, Hefei has also strengthened its industrial infrastructure by building industrial clusters such as the National Hefei Economic and Technological Development Area (NHETDA) and the Hefei High-Tech Industrial Development Zone.

Auto manufacturing, biotechnology and new medicine, chemicals, equipment manufacturing, food and processing of agricultural and sideline products, household appliances, information technology and software, and new materials are the main industry sectors in Hefei.<sup>56</sup> Hefei has an ambitious plan to shape itself as China's household-appliances production base.<sup>57</sup> And with its reputation in science and education, Hefei can boast of the quantity and quality of its scientific and technological labor force and institutions. With these assets, Hefei is trying to craft China's first "Science City," and this project is expected to further its booming economy.<sup>58</sup>

## Xiamen, Fujian

1-year job growth (2012-2013)	<b>18</b> TH
5-year job growth (2008-2013)	<b>8</b> TH
1-year wage growth (2012-2013)	<b>34</b> TH
5-year wage growth (2008-2013)	<b>19</b> TH

	LQ for high value-adde
Xiamen ranks seventh in our index, and takes first	immigrants oversea
place in the indicator for one-year GRP per-capita	small and medium-
growth. Compared with the other cities in our Top 10,	marketed itself as a
Xiamen came to industrialization later and was less	Between 2006 and
developed. But it caught up rapidly in the 1990s, aided	500 companies.63
by its coastal location and strong government support	In addition Vieman
for economic reform. More recently, while not on the	In addition, Xiamen

by its coastal location and strong government support for economic reform. More recently, while not on the radar of many Western investors, this industrial port city has lifted its global profile—attracting Fortune 500 companies, developing strong secondary and tertiary industries, and benefiting from its connections to overseas Chinese investors.

Located in Fujian Province in southeastern China, Xiamen has 3.7 million people.<sup>59</sup> In 2013, the secondary industry accounted for 69 percent of Xiamen's total employment and around 48 percent of its GDP.<sup>60</sup> In the same year, although the tertiary industry accounted for only 31 percent of the total employment in Xiamen, it created 52 percent of the city's GDP.<sup>61</sup> Chemicals, financial services, electronics, fisheries, food processing, machine tool manufacturing, shipbuilding, tanning, telecommunications, and textiles are the pillar industries in Xiamen.<sup>62</sup>

Its economic success in recent years can be traced to China's economic reform starting in the early 1980s. Xiamen was designated as one of the country's five special economic zones (SEZs). More recently, in April 2015, the Xiamen Area of China (Fujian) Pilot Free Trade Zone was established, further facilitating economic development. In addition, Xiamen continues to host the China International Fair for Investment and Trade (CIFIT), which began in 1997. All these have helped attract foreign investors to Xiamen and fueled its economy. Xiamen's strong links to many generations of overseas Chinese have helped its economy as well. Taiwanese investors and Chinese

5-year GRP per-capita growth (2008-2013)	<b>5</b> TH
3-year FDI growth (2010-2013)	<b>30</b> TH
FDI/GRP (2013)	<b>12</b> TH
LQ for high value-added industry employment (2013)	<b>8</b> TH

1 ST

1-year GRP per-capita growth (2012-2013)

immigrants overseas have seeded the growth of many small and medium-sized enterprises. Xiamen has also marketed itself as a tourist and conference destination. Between 2006 and 2010, Xiamen attracted 23 Fortune 500 companies.<sup>63</sup>

In addition, Xiamen's comprehensive transportation network gives the city an edge in bolstering its economy, with complete systems of freeways and railways, a port, and an international airport. A new international airport is under construction and slated to begin operation in 2020.<sup>64</sup>

## Changchun, Jilin

1-year job growth (2012-2013)	<b>3</b> RD
5-year job growth (2008-2013)	<b>22</b> ND
1-year wage growth (2012-2013)	<b>5</b> TH
5-year wage growth (2008-2013)	<b>11</b> TH

1-year GRP per-capita growth (2012-2013)	25 TH
5-year GRP per-capita growth (2008-2013)	<b>21</b> ST
3-year FDI growth (2010-2013)	<b>1</b> ST
FDI/GRP (2013)	<b>5</b> TH
LQ for high value-added industry employment (2013)	<b>11</b> TH

**Changchun** is eighth among top-tier cities, ranking in the top spot for three-year FDI growth and posting strong one-year job and wage growth. The capital of Jilin Province, Changchun is historically known for filmmaking and automobile production, and it has nurtured these industries successfully as well as developed new clusters to diversify and strengthen its economy.

One of the major hubs of heavy-industry clusters in northeast China, Changchun has a registered population of 7.5 million people.<sup>65</sup> While the secondary and tertiary industries each accounted for approximately half of the employment of Changchun, 53 percent of its GDP was derived from the secondary industry.<sup>66</sup>

From 1949 to the mid-1980s, Changchun was an icon of modernization, industrialization, and cultural leadership. It is known both as the City of Automobiles and the City of Films thanks to those two mainstay industries. In fact, Changchun is the birthplace of China's first homegrown vehicle<sup>67</sup> and the headquarters of the country's first automaker, the FAW (First Automobile Works). Also dubbed the Detroit of China, Changchun has attracted some major automakers to its jurisdiction. Since 2007, Changchun has hosted the International Automobile Fair, which has brought a wealth of business opportunities to the city. And in December 2013, Microsoft launched an automobile industry innovation center in Changchun.<sup>68</sup>

As the so-called City of Films, Changchun has the distinction of being the cradle of China's movie industry. It is home to the Changchun Film Group Corp., the first film studio post-1949, as well as Changchun Film City, a movie theme park also known as "the oriental Hollywood," where the film industry and tourism intersect.<sup>69</sup> It has also hosted the Changchun Film Festival since 1992 to showcase its film industry.

In the reform era, Changchun had fallen behind as many state-owned enterprises went through restructuring in the 1980s and 1990s. More recently, the city rebuilt its automotive base through joint ventures and FDI. Changchun has also adopted plans to diversify its other industries, including advanced manufacturing, biomedicals, electronics, food processing, new energy, and new materials. Like many other cities in China, Changchun has established several industrial clusters to further fortify its industrial base.



1-year job growth (2012-2013)	21 51
5-year job growth (2008-2013)	<b>1</b> ST
1-year wage growth (2012-2013)	<b>17</b> TH
5-year wage growth (2008-2013)	<b>7</b> <sup>TH</sup>

 1-year GRP per-capita growth (2012-2013)
 34 TH

 5-year GRP per-capita growth (2008-2013)
 15 TH

 3-year FDI growth (2010-2013)
 12 TH

 FDI/GRP (2013)
 6 TH

 LQ for high value-added industry employment (2013)
 30 TH

**Chongqing** places ninth in our ranking, holding strong positions for five-year job growth (first) and wage growth (seventh). An economic powerhouse in inland China, the well-situated city has been a magnet for foreign investment and international trade. It has also benefited from preferential policies for developing the city's electronics and information technology industry.

Located in central China, Chongqing became one of the four municipalities directly governed by the Chinese central government in 1997 and was designated a National Central City. Like Chengdu, in benefiting from China's Go West strategy, Chongqing underwent explosive economic growth in the last decade. Its 2013 population reached approximately 30 million,<sup>70</sup> making Chongqing the most populous city in China.

Chongqing's proximity to the Yangtze River has made it a hub for inland transportation. Although in 2013 over half of jobs (52 percent) in Chongqing came from the tertiary industry, the secondary industry contributed half of the city's GDP.71 Its main industries include automobiles, aviation, electronics, materials (e.g., aluminum, iron, steel), and equipment. Chongqing is one of the Top 3 auto-manufacturing bases in China. In 2014, Ford initiated a joint venture program with its Chinese partner to open its third assembly plant in Chongqing.72 In addition, the central government has implemented preferential economic policies for the electronics and information technology industry in Chongqing.73 The city has become the largest laptop production base in the world; its laptop output accounts for one-third of the world's total production.<sup>74</sup> Recently, the Chinese government has also been cultivating Chongqing as a financial center in the inland region. Furthermore,

Chongqing is developing several new industrial bases for biomedicals, chemical engineering materials, environmental protection, graphene, integrated circuitry, the Internet of Things, liquid crystal panels, robotics, and new-energy sources for vehicles.

All these assets have helped strengthen the city's global connections. From 2012 to 2013, Chongqing's total volume of foreign trade increased by 30 percent, reaching \$68.7 billion and placing Chongqing 10th in China. In 2013, the city's foreign direct investment was 21.5 percent above the national average.<sup>75</sup>

### Shenzhen, Guangdong

1-year job growth (2012-2013)	<b>13</b> TH
5-year job growth (2008-2013)	<b>10</b> TH
1-year wage growth (2012-2013)	<b>2</b> ND
5-year wage growth (2008-2013)	<b>4</b> TH

**Shenzhen** rounds off our Top 10 large-cities list. As China's first special economic zone, established back in 1980, the Guangdong Province city has since adapted to changing conditions and maintained its competitive position in the global market. In that time, it evolved from being a low-cost production center to a high value-added economy. In our rankings, Shenzhen showed consistent strength in wage growth and surpassed all other cities in the measurement for LQ for high value-added industry employment.

Once a sleepy fishing village, Shenzhen has undergone tremendous growth in population and economic power. The Pearl River Delta city, which borders Hong Kong, had roughly 11 million people in 2013.<sup>76</sup> In addition to its designation as a special economic zone, Shenzhen is one of five cities in the country with independent plans from the central government. This has meant favorable tax policies, investments, and government support. Furthermore, Shenzhen is a hub of international trade and commerce, thanks to its ability since the 1980s to set up free trade zones. It is also home to the Shenzhen Stock Exchange, founded in 1989 and one of China's two major stock markets.

Shenzhen has been an export-oriented manufacturing center and one of the growth poles for China's economy since the 1980s. An inexorable rise in wages coupled with rapid economic growth led the municipal government to reshape Shenzhen from a low-cost production center to a high value-added economy.<sup>77</sup> The transformation of Shenzhen's economy is deeply rooted in the information technology sector. Since the mid-1990s, Shenzhen has established information technology industry-based clusters such as the Shenzhen High-Tech Industrial Park (SHIP) and Shenzhen Software Park. Huawei, a telecom giant in China and the nation's leader in the number of patent filings in 2014,<sup>78</sup> has its headquarters in Shenzhen.

1-year GRP per-capita growth (2012-2013)	<b>30</b> TH
5-year GRP per-capita growth (2008-2013)	<b>33</b> RD
3-year FDI growth (2010-2013)	25 TH
FDI/GRP (2013)	24 TH
LQ for high value-added industry employment (2013)	<b>1</b> ST

The Taiwanese high-tech company Foxconn, a major manufacturer for Apple's iPhone, set up its first offshore manufacturing plant in Shenzhen in 1988.<sup>79</sup> In addition, Shenzhen has been striving to establish and attract institutions of higher education such as Tsinghua University to build its talent pool. Many of Shenzhen's firms also have nurtured their own research and development capacities. Such talent building and entrepreneurship have contributed to Shenzhen's recent economic success.

Another strategy aimed at elevating Shenzhen's economic success is the development of the Qianhai district, launched by the central and local governments in 2010 in response to new challenges facing Shenzhen. This project was also incorporated in the 12th Five-Year Plan (2011-2015). Finance, modern logistics, information services, technology services, and other professional services are the pillar industries in the Qianhai district.<sup>80</sup> Despite the city's staggering economic achievement, however, Shenzhen has faced severe competition from a number of cities in China. The rise of Suzhou, in particular, has attracted many tech companies to its well-established industry cluster. In the wake of China's entry into the World Trade Organization, many preferential policies that benefited Shenzhen vanished and the rise of other Chinese cities compromised its location advantages.81

### COMPLETE RESULTS: FIRST- AND SECOND-TIER CITIES

Rank	City	Province	1-year job growth (2012-2013)	5-year job growth (2008-2013)	1-year wage growth (2012-2013)	5-year wage growth (2008-2013)	1-year GRP per-capita growth (2012-2013)	5-year GRP per-capita growth (2008-2013)	3-year FDI growth (2010-2013)	FDI/GRP (2013)	LQ for high value- added industry (2013)
1	Chengdu	Sichuan	1	2	4	9	13	4	7	2	24
2	Shanghai		17	9	11	6	2	16	18	8	2
3	Tianjin		24	13	13	14	4	2	16	3	7
4	Dalian	Liaoning	12	24	16	18	16	18	22	1	5
5	Nanjing	Jiangsu	2	4	1	2	8	17	20	17	10
6	Hefei	Anhui	5	3	3	1	23	22	23	22	25
7	Xiamen	Fujian	18	8	34	19	1	5	30	12	8
8	Changchun	Jilin	3	22	5	11	25	21	1	5	11
9	Chongqing		21	1	17	7	34	15	12	6	30
10	Shenzhen	Guangdong	13	10	2	4	30	33	25	24	1
11	Guiyang	Guizhou	11	19	6	15	6	1	2	27	29
12	Kunming	Yunnan	14	18	15	3	12	6	10	16	26
13	Beijing		26	27	25	23	3	9	24	21	9
14	Nanchang	Jiangxi	6	6	7	5	28	26	19	4	22
15	Xi'an	Shaanxi	9	12	12	20	24	11	8	10	12
16	Qingdao	Shandong	15	31	14	26	17	20	9	9	3
17	Haikou	Hainan	20	7	19	12	5	12	34	14	33
18	Zhengzhou	Henan	10	5	8	8	33	31	11	15	13
19	Wuhan	Hubei	27	32	24	24	10	3	15	13	21
20	Shenyang	Liaoning	4	21	9	21	20	25	29	7	20
21	Changsha	Hunan	22	14	27	16	22	8	17	18	15
22	Ningbo	Zhejiang	33	15	30	22	7	27	21	19	6
23	Ürümqi	Xinjiang	19	16	20	10	9	13	14	32	23
24	Hohhot	Inner Mongolia	7	26	10	25	11	10	33	28	31
25	Hangzhou	Zhejiang	30	11	29	17	14	30	26	11	17
26	Fuzhou	Fujian	31	17	26	13	19	14	28	26	16
27	Yinchuan	Ningxia	25	30	31	34	15	7	6	33	34
28	Guangzhou	Guangdong	29	20	32	31	26	34	27	25	4
29	Jinan	Shandong	23	28	18	30	18	24	32	29	19
30	Harbin	Heilongjiang	32	34	23	33	32	28	5	20	14
31	Shijiazhuang	Hebei	28	33	22	29	29	29	3	31	18
32	Nanning	Guangxi	16	23	28	32	31	19	13	30	28
33	Taiyuan	Shanxi	34	29	33	28	21	32	4	23	27
34	Lanzhou	Gansu	8	25	21	27	27	23	31	34	32

## Top 10 Best-Performing Cities China (Third-tier cities)



1-year job growth (2012-2013)	<b>5</b> TH	1-year GRP per-capita growth (2012-2013)	<b>1</b> ST
5-year job growth (2008-2013)	<b>8</b> TH	5-year GRP per-capita growth (2008-2013)	<b>124</b> TH
1-year wage growth (2012-2013)	<b>6</b> TH	3-year FDI growth (2010-2013)	<b>194</b> TH
5-year wage growth (2008-2013)	<b>9</b> TH	FDI/GRP (2013)	<b>24</b> TH
		LO for high value, added industry, employment (0010)	0.00

LQ for high value-added industry employment (2013) 3 RD

**SUZHOU** is solidly in first place, leading six other Jiangsu Province cities that ranked in the Top 10 of third-tier cities. A major manufacturing center, it has built on the success of its high-tech park and fostered longstanding partnerships with foreign investors. Suzhou performed well in most of our index's growth categories, placing in the Top 10 in six of the nine components. The city ranked an impressive No. 1 in one-year GRP per-capita growth, in sharp contrast to No. 124 for the same measure in the five-year period—an indication of the recent developments that have driven its upward trajectory.

A historic city with picturesque canals, bridges, and classical gardens that have garnered UNESCO World Heritage designations, Suzhou is also a modern metropolis with a population of about 11 million.<sup>82</sup> So while it is known as the Venice of the East, the city has also earned a reputation more recently for economic prosperity powered by industrialization. Suzhou is one of China's major manufacturing centers and its secondary industry accounted for about three-fourths of its total labor force.<sup>83</sup> Chemicals, electronics, equipment manufacturing, steel, and textile are its main industries. In particular, Suzhou is one of the world's biggest production centers for laptop computers.

Modern Suzhou's development began with the so-called Sunan model proposed in the 1980s, which centered on the development of township and village enterprises as a way to bolster economic growth. However, by the 1990s, this economic development strategy became inadequate as its more closed form of economy did not lead to faster growth. The Suzhou model, which emphasizes the use of foreign investment, replaced the Sunan model as a paradigm for economic development. From the early 1990s onward, Suzhou enthusiastically embraced FDI.<sup>84</sup> By the end of 2014, 147 Fortune 500 companies had a presence in Suzhou.<sup>85</sup> This new approach also gave rise to Suzhou New District (SND) and Suzhou Industrial Park (SIP). Established under the collaboration of China and Singapore in 1994, SIP is one of the largest innovation precincts in China. It has largely transformed Suzhou's industrial structure and is a key factor in Suzhou's No. 3 ranking for our LQ measurement.

Suzhou's growth is also fostered by education and transportation infrastructure. In 2013, Australia's Monash University and China's Southeast University jointly opened a campus in SIP. Suzhou has a comprehensive transport network that includes airports, freeways, and railways. In recent years, the operation of high-speed railway lines has dramatically reduced commute times to other major cities in China.

### Nantong, Jiangsu

1-year job growth (2012-2013)	<b>1</b> ST
5-year job growth (2008-2013)	<b>3</b> RD
1-year wage growth (2012-2013)	<b>2</b> ND
5-year wage growth (2008-2013)	<b>4</b> TH

1-year GRP per-capita growth (2012-2013)	109 TH
5-year GRP per-capita growth (2008-2013)	82 ND
3-year FDI growth (2010-2013)	189 TH
FDI/GRP (2013)	<b>47</b> TH
LQ for high value-added industry employment (2013)	166 TH

Nantong is in second place among third-tier cities. One of China's fastest-growing cities, Nantong has enjoyed staggering economic growth in recent years. In all indicators for job and wage growth in our index, the city is in the Top 5 among all 232 third-tier cities, most notably in the No. 1 position for one-year job growth (2012-2013). Nantong's diverse industries, transportation infrastructure, and advantageous coastal as well as riverbank location have all fueled its economic performance.

An industrial city with a population of nearly 7.3 million,<sup>86</sup> Nantong is rich in natural resources such as iron, petroleum, natural gas, coal, and marble.87 Approximately 80 percent of jobs come from the secondary industry.88 Nantong's economic sectors include advanced manufacturing, financial services, information technology, logistics, material science, pharmacy, precision machinery, shipbuilding, and textiles. Over the last three decades, it has established industrial clusters that have become key to its economic growth. These include the Nantong Economic and Technological Development Area (1984), the Nantong Gangzha Economic Development Zone (1993), the Nantong Chongchuan Economic Development Zone (1993), Su-Tong Science and Technology Park (2009), and Nantong Binhai Park (2012). Geographically, in addition to being situated both coastally and along the Yangtze River, Nantong has benefited from its proximity to Shanghai, China's financial capital. Nantong was among the first 14 Chinese coastal cities open to foreign investment. Further, improvements in transport infrastructure have connected the city more closely with Suzhou and Shanghai. For example, the completion of the Sutong Yangtze River Bridge in 2008 shortened travel times to Suzhou or Shanghai to just under two hours, while the Chongqi Bridge, opened in 2011, links southeastern Nantong and Shanghai.

## Yangzhou, Jiangsu

1-year job growth (2012-2013)	<b>2</b> ND
5-year job growth (2008-2013)	<b>5</b> <sup>TH</sup>
1-year wage growth (2012-2013)	<b>1</b> ST
5-year wage growth (2008-2013)	<b>3</b> RD

1-year GRP per-capita growth (2012-2013)	83 RD
5-year GRP per-capita growth (2008-2013)	67 TH
3-year FDI growth (2010-2013)	211 TH
FDI/GRP (2013)	<b>33</b> RD
LQ for high value-added industry employment (2013)	<b>121</b> ST

Yangzhou takes third place among the third-tier cities. It posted the highest one-year wage growth and performed outstandingly in the other indicators for job and wage growth in our index. An industrial base in Jiangsu Province, Yangzhou has a dynamic economy with established sectors specializing in chemicals and the manufacture of machinery and transportation equipment. More recently it has branched out to develop new-energy sectors.

For centuries, dating to the Tang dynasty, Yangzhou has thrived as an economic hub thanks to its surrounding waterways—it is on the northern bank of the Yangtze River and home to an ancient canal. The city also has the distinction of being the birthplace of China's first and oldest cosmetics company, Xie Fu Chun, founded in 1830,<sup>89</sup> an entrepreneurial endeavor that gained Yangzhou the favor of the imperial families during the Ming and Qing dynasties. Around the 18th century, the city's prosperity reached new heights as it became a major center for the region's bustling salt trade.

Today, modern Yangzhou has a population of about 4.5 million<sup>90</sup> and a robust industrial economy. In 2013, roughly three-fourths of employment and half of the gross regional product came from the secondary industry.<sup>91</sup> Yangzhou developed its economy by establishing the Yangzhou Economic and Technological Development Zone in 1992 and the Yangzhou Chemical Industry Park in 2006, specializing in chemicals, petrochemicals, and synthetic materials.<sup>92</sup> In more recent years, Yangzhou has been developing the new-energy (for example, solar power) and new-light-source (i.e., semiconductor illumination) sectors.<sup>93</sup>

With its rich history and culture as well as scenic views, Yangzhou has a lucrative tourism industry that has benefited from improvements in transportation. The city's train station and airport, opened in 2004 and 2012, respectively, have greatly enhanced access to the city.

30

### Suqian, Jiangsu

1-year job growth (2012-2013)	<b>4</b> TH
5-year job growth (2008-2013)	<b>4</b> TH
1-year wage growth (2012-2013)	<b>5</b> TH
5-year wage growth (2008-2013)	<b>1</b> ST

Suqian is No. 4 among third-tier cities, ranking in the Top 5 for all job- and wage-growth categories. The city has achieved rapid growth in recent years by improving infrastructure and environmental quality, providing business-friendly policies and lower operating costs, and building a significant talent pool.

Situated in the heart of northern Jiangsu, Suqian was designated as a prefecture-level city in 1996 and has a population of 4.8 million (as of 2013).<sup>94</sup> As a member of the Yangtze River Delta Economic Zone, Suqian has established several industrial parks such as the Luoma Lake Headquarters Economic Zone, the Suqian Economic and Technological Development Zone, and the Suzhou-Suqian Industrial Park.

Sugian was recently recognized as one of the fastest-growing cities in China. Its markedly low labor costs and business-friendly policies have attracted investors in droves. As of January 2013, Sugian's monthly minimum wage was the lowest in Jiangsu Province and lower than in most of the more developed cities in China. At 950 RMB, Sugian's monthly minimum wage was nearly 40 percent less than Shenzhen's, at 1,500 RMB.95 Sugian has also strived to streamline its administrative processes, offered various administrative and tax incentives, and provided assistance to investors for land acquisition.96 In addition, the concentration of several highereducation institutions provides high-quality human capital for Sugian's booming economy. Given these assets, Sugian has been viewed as one of the best places for investment.97

1-year GRP per-capita growth (2012-2013)	193 RD
5-year GRP per-capita growth (2008-2013)	13 <sup>TH</sup>
3-year FDI growth (2010-2013)	<b>36</b> TH
FDI/GRP (2013)	85 <sup>TH</sup>
LQ for high value-added industry employment (2013)	<b>107</b> TH

Numerous industries comprise Suqian's booming economy, covering a wide range from traditional to high-tech. Liquor production, for example, has long been part of Suqian's history, dating back to the Ming dynasty. Today, the city still produces alcoholic beverages, which account for a major part of its food-production sector. Suqian is also a center of electronics manufacturing, producing parts and covers for Apple's iPhone 6, iPad, and MacBook as well as components for other well-known international brands such as Dell, Hewlett-Packard, HTC, Lenovo, Motorola, and Sony. The city's other major industrial sectors include textiles, construction, chemicals, and machinery.<sup>98</sup>

Suqian is a transportation hub with airports, trains, and freeways, as well as river and canal access. (The city is only a two- to three-hour drive to neighboring economic hubs Lianyungang and Nanjing.) The historic Grand Canal, a UNESCO World Heritage site, runs through the city; this charming geographic asset provides transport and economic benefits.
## Taizhou, Jiangsu

1-year job growth (2012-2013)	<b>3</b> RD
5-year job growth (2008-2013)	<b>6</b> <sup>TH</sup>
1-year wage growth (2012-2013)	<b>3</b> RD
5-year wage growth (2008-2013)	<b>2</b> ND

**Taizhou** is fifth among third-tier cities. Like its fellow Jiangsu Province cities in the Top 5 of this index group, Taizhou performed well in the job- and wagegrowth indicators. Its ambitious efforts to develop newer industry sectors as well as its emphasis on education and human capital are shaping Taizhou's image as an innovative city.

A historic city with a current population of approximately 4.6 million,<sup>99</sup> Taizhou was part of Yangzhou and became a separate prefecture-level city in 1996.<sup>100</sup> Recently, Taizhou was integrated into the Yangtze River Delta Economic Zone, a move enhanced by the improvement of transportation infrastructure connecting the city with Nanjing, Suzhou, and Shanghai.

In 2013, about three-fourths of employees were in the secondary industry,<sup>101</sup> with pharmaceuticals, electronics and machinery, chemical engineering, and shipbuilding as the four pillar industries. Taizhou has recently dedicated resources to nurture biomedical, information technology, and new energy as its new industry sectors.<sup>102</sup> To facilitate this effort, it has established industrial parks across its jurisdiction. One particular focus for Taizhou has been developing the pharmaceutical industry. The city is now the headquarters of Yangtze River Pharmaceutical Group, one of China's major pharmaceutical companies. In 2009, Taizhou became the home to China Medical City, the first and only medical park in China. And in 2014, the Japanese Chugai Pharmaceutical Co. opened its plant in the medical park.

1-year GRP per-capita growth (2012-2013)	142 TH
5-year GRP per-capita growth (2008-2013)	<b>48</b> TH
3-year FDI growth (2010-2013)	198 <sup>TH</sup>
FDI/GRP (2013)	<b>49</b> TH
LQ for high value-added industry employment (2013)	113 TH

In addition, Taizhou has the oldest and the largest number of postdoctoral centers, as well as the most postdoctoral students, in China.<sup>103</sup> This large, highly educated population provides human capital that is key to the development of the city.

With several rivers passing through the city and the Port of Taizhou, Taizhou is one of the major shipbuilding bases in the country. The city has set its sights on building up its longstanding shipbuilding industry, with several companies such as New Century Shipbuilding, Sanfu Shipbuilding, and Taizhou Kouan Shipbuilding in residence. However, the overall industry has suffered some setbacks amid higher costs and lower prices. In the past year, several major shipbuilders in China, including the Taizhou-based East Heavy Industry, have filed for bankruptcy.<sup>104</sup> This may pose some challenges for Taizhou's economy in the future.

## Qingyang, Gansu

1-year job growth (2012-2013)	<b>7</b> TH
5-year job growth (2008-2013)	<b>17</b> TH
1-year wage growth (2012-2013)	<b>8</b> TH
5-year wage growth (2008-2013)	<b>16</b> TH

1-year GRP per-capita growth (2012-2013)	180 TH
5-year GRP per-capita growth (2008-2013)	<b>17</b> TH
3-year FDI growth (2010-2013)	<b>3</b> RD
FDI/GRP (2013)	224 TH
LQ for high value-added industry employment (2013)	232 ND

Qingyang is sixth among third-tier cities. Rich in natural resources and strategically located in eastern Gansu Province, the city has ridden the rising economic wave in the wake of transportation development in the past five years. Its improved accessibility may account for its ability to attract foreign investment: The energy-producing city ranks No. 3 in three-year FDI growth. However, its significantly weaker rankings in other indicators suggest a further need to diversify its industries.

Located near the intersection of three provinces— Gansu, Shaanxi, and Ningxia—Qingyang has a registered population of 2.6 million.<sup>105</sup> Of the Top 10 third-tier cities, it is geographically the farthest north as well as the westernmost, serving as a pivotal point of access to western China from the east. As one of the centers of early agricultural civilization in China,<sup>106</sup> Qingyang has been known as the barn for Gansu Province. It produces an abundance of grain and a variety of agricultural products, thanks to its proximity to the Yellow River.

Qingyang's most prominent industries, however, are petroleum and natural gas. They are the backbone of its economy, along with the production of coal. In fact, as per the 12th Five-Year Plan, Qingyang is designated as a base for energy and chemical industries for China, with the goal of supplying electricity for cities in east China.<sup>107</sup> It is also the main production area of the Changqing Oilfield. In addition, Qingyang has established several industrial clusters.<sup>108</sup> With the recent development of its secondary industry, that sector contributes almost 60 percent of the city's total GDP.<sup>109</sup> In recent years, the transport network has largely been improved to Qingyang's advantage. Its first highway opened in 2011<sup>110</sup> and Qingyang Airport's expansion was completed in 2012.<sup>111</sup> These developments paved the way for recent economic success-in addition to its strong performance in three-year FDI growth (as indicated above), the city fared well in one-year job and wage growth-and will help facilitate Qingyang's new focus on developing its tourism industry, centered on its cultural and natural assets such as the Loess Plateau. However, infrastructure as a whole in Qingyang remains insufficient for future economic development. Furthermore, state-owned enterprises (SOEs) are still the main players in the city's economy; in 2012, the value-added of two SOEs accounted for 45.7 percent of the city's GDP.<sup>112</sup> Diversifying Qingyang's types of enterprises may improve its economic health.

### Changzhou, Jiangsu

1-year job growth (2012-2013)	<b>15</b> TH
5-year job growth (2008-2013)	<b>12</b> TH
1-year wage growth (2012-2013)	<b>27</b> TH
5-year wage growth (2008-2013)	<b>30</b> TH

1-year GRP per-capita growth (2012-2013)	<b>5</b> <sup>TH</sup>
5-year GRP per-capita growth (2008-2013)	101 ST
3-year FDI growth (2010-2013)	165 TH
FDI/GRP (2013)	12 TH
LQ for high value-added industry employment (2013)	<b>18</b> TH

**Changzhou** is seventh among third-tier cities. Its advantageous location in Jiangsu Province, sound infrastructure, and well-trained and highly educated workforce have all contributed to the city's rapid economic growth in recent years. In our index, Changzhou performed particularly well in terms of one-year GRP per-capita growth, ranking No. 5 in that indicator among all 232 third-tier cities.

Situated between provincial capital Nanjing to the west and Shanghai to the southeast, Changzhou is a city with 3,200 years of history that today is populated by nearly 4.7 million people.<sup>113</sup> Its comprehensive transport network of airports, railways, highways, and ports affords the city a multitude of economic opportunities. The high-speed railway, for example, links Changzhou with Shanghai within just one hour.

Changzhou, located in the Yangtze River Delta Economic Zone, is one of China's major manufacturing bases. As of 2014, slightly more than 60 percent of its workers were employed in the secondary industry.<sup>114</sup> Its pillar industries are manufacturing, electronics and information technology, renewable energy, new materials, and biopharmaceuticals.<sup>115</sup> Changzhou is also one of the manufacturing bases for China's highspeed rail cars (rail cars). To bolster its economy, Changzhou has developed 12 industrial parks/zones such as the Changzhou National Hi-Tech District.<sup>116</sup> Along with the city's commitment to education, this has helped attract businesses; as of 2010, 49 of Fortune 500 companies had a base in Changzhou.<sup>117</sup> Each year, Changzhou's university town produces roughly 20,000 graduates, providing a steady stream of highly skilled and educated workers. The university area, established in 2003, has six higher-education institutions that have partnered with foreign universities as well as companies to create opportunities for expanding students' knowledge and practical skills. For example, some international companies such as the Vortice Group, a producer of air-conditioning devices, have provided internship programs for local college students.118



1-year job growth (2012-2013)	<b>16</b> TH
5-year job growth (2008-2013)	15 <sup>TH</sup>
1-year wage growth (2012-2013)	<b>22</b> ND
5-year wage growth (2008-2013)	28 TH

Wuxi places eighth among third-tier cities. Its transformation as a high-tech town in recent decades has fueled Wuxi's economic success in innovative industries, which is reflected by the city's No. 6 position in the indicator for LQ for high value-added industry employment.

With a population of nearly 6.5 million,<sup>119</sup> Wuxi borders the Yangtze River to the north and Lake Tai (Taihu) to the south. In addition, an ancient canal passes through the city. Over the centuries, these water resources enabled Wuxi to become a city rich in grain and fishery products. By the 20th century, Wuxi was dubbed "Little Shanghai" for its success in commerce and manufacturing.

In recent decades, Wuxi has steadfastly focused on high-tech. The city now has more than 20 industrial clusters, such as the Wuxi New District, and is also an incubator for solar technology. Suntech Power and Jetion, two companies producing solar-energy products and listed on overseas stock exchanges, are headquartered in Wuxi. In addition, Wuxi has been developing the industrial sector of the Internet of Things. It established the China Sensor Network International Innovation Park and the Wuxi (Binhu) National Sensing Information Center.

1-year GRP per-capita growth (2012-2013)	<b>2</b> ND
5-year GRP per-capita growth (2008-2013)	145 <sup>TH</sup>
3-year FDI growth (2010-2013)	195 <sup>TH</sup>
FDI/GRP (2013)	55 <sup>TH</sup>
LQ for high value-added industry employment (2013)	<b>6</b> TH

Given its location in Jiangsu Province, Wuxi is well-positioned, and the development of its transportation system in recent years has facilitated the city's economic growth. The new high-speed rail line, for example, has shortened the commute between Wuxi and Shanghai to about half an hour. In addition to the improved transportation infrastructure, Wuxi has actively opened its doors to the global markets, successfully attracting many foreign investors, such as Sharp and Toyota. Wuxi is also developing its tourism industry based on its status as a historic city, beautiful views, and cultural assets.



1-year job growth (2012-2013)	<b>11</b> TH
5-year job growth (2008-2013)	25 TH
1-year wage growth (2012-2013)	<b>10</b> TH
5-year wage growth (2008-2013)	<b>19</b> TH

1-year GRP per-capita growth (2012-2013)	<b>22</b> ND
5-year GRP per-capita growth (2008-2013)	<b>60</b> TH
3-year FDI growth (2010-2013)	130 <sup>TH</sup>
FDI/GRP (2013)	<b>29</b> TH
LQ for high value-added industry employment (2013)	<b>46</b> TH

Ji'an takes ninth place among third-tier cities. The Jiangxi Province city fared well in our job- and wage-growth indicators, particularly for oneyear wage growth. Ji'an's economic success can be traced to its inland yet accessible location, infrastructure development, diverse range of industries, and educated labor force.

The city is close to the Yangtze River and the Pearl River Delta clusters, with the Gan River-a tributary of the Yangtze-running through it. Its registered population numbers approximately 5.1 million.<sup>120</sup> China's rapid development of highways and a rail system quickly altered the economic potential of Ji'an in the past 15 years or so. Set in a mountainous region, Ji'an is rich in natural resources but had lacked modern transportation. Today, it has developed some infrastructure bases with highways, train lines, and airport that have been crucial to the city's quick growth and economic ascent. Furthermore, administrated by the government, Ji'an incorporated other cities and towns to form the prefecture-level city in 2001. The enlargement of the city's geography and market size has enabled the region to expand its industrial bases.

Electronics, food processing, pharmaceuticals, electricity, metallurgy, and construction materials are the six pillar industries in Ji'an.<sup>121</sup> In 2001, the Jinggangshan Economic and Technological Development Zone was established and designated as a national industrial zone; it has emphasized such industrial sectors as electronic information technology, biopharmaceuticals, advanced equipment manufacturing, and modern services. In particular, Ji'an recently dedicated itself to the development of the biopharmaceutical industry. There are an estimated 80 related companies in this city.<sup>122</sup> Ji'an is also working to strengthen its industrial connection to Shenzhen. For example, to further nurture the electronics industry in Ji'an, a Shenzhenbased group is establishing the Ji'an International Electronic City, and it is expected to open in mid-2015.<sup>123</sup>

Ji'an has also benefited from the Go West policy, as many manufacturers have relocated factories to inland cities that offer lower operating costs. The city is particularly attractive to businesses because it is not too far inland from established manufacturing hubs such as Guangdong, Zhejiang, and Jiangsu provinces. Another draw for companies is the city's talent pool. Ji'an has approximately 100,000 graduates from vocational high schools and universities each year, providing a stable source of high-quality employees.<sup>124</sup>

## Yichang, Hubei

1-year job growth (2012-2013)	63 RD
5-year job growth (2008-2013)	<b>7</b> TH
1-year wage growth (2012-2013)	<b>54</b> <sup>TH</sup>
5-year wage growth (2008-2013)	<b>8</b> TH

1-year GRP per-capita growth (2012-2013)	<b>34</b> TH
5-year GRP per-capita growth (2008-2013)	<b>1</b> ST
3-year FDI growth (2010-2013)	167 TH
FDI/GRP (2013)	174 <sup>TH</sup>
LQ for high value-added industry employment (2013)	<b>27</b> TH

**Yichang** is No. 10 among third-tier cities. It took the top spot for five-year GRP per-capita growth in our index, as well as securing the seventh and eighth positions for five-year job and wage growth, respectively. Notably, the city's job and wage growth has softened recently as the region unwinds from the completion of the world's largest hydropower station in 2013. Despite the region's endowments in transportation, power generation, and waterways, Yichang's foreign direct investment is lacking. The rankings in both FDI categories are less than desirable at 167th and 174th.

Bordering the Yangtze River, this Hubei Province city serves as a transitional point connecting Chongqing and Wuhan, the provincial capital. With a registered population of 4 million,<sup>125</sup> Yichang is home to the Three Gorges Dam, the world's largest hydropower station, as well as the Gezhou Dam. Its proximity to water also gives Yichang advantages in economic development, such as water transportation and machinery manufacturing. Yichang is also a city rich in natural resources such as phosphorus and graphite; it is home to one of only four graphite mines in the world. Recently, Yichang has diversified its economic structure by setting up industrial clusters such as the Yichang Hi-Tech Industry Development Zone, which anchors the biomedical, electronics, machinery manufacturing, and new-materials sectors. In 1994, Yichang was designated by the Chinese central government as one the cities along the Yangtze River open to foreign businesses and investments.<sup>126</sup> As a pioneer of economic open cities in central China, Yichang has aimed to become a hot spot for foreign investment and consequently was identified in 2014 as one of the best cities for investment in China.<sup>127</sup> Indeed, the city can continue to attract private-sector investments, both domestic and foreign, as well as tourism opportunities on the heels of its successful hydropower project.

#### COMPLETE RESULTS: THIRD-TIER CITIES

Rank	City	Province	1-year job growth (2012-2013)	5-year job growth (2008-2013)	1-year wage growth (2012-2013)	5-year wage growth (2008-2013)	1-year GRP per-capita growth (2012-2013)	5-year GRP per-capita growth (2008-2013)	3-year FDI growth (2010-2013)	FDI/GRP (2013)	LQ for high value- added industry (2013)
1	Suzhou	Jiangsu	5	8	6	9	1	124	194	24	3
2	Nantong	Jiangsu	1	3	2	4	109	82	189	47	166
3	Yangzhou	Jiangsu	2	5	1	3	83	67	211	33	121
4	Suqian	Jiangsu	4	4	5	1	193	13	36	85	107
5	Taizhou	Jiangsu	3	6	3	2	142	48	198	49	113
6	Qingyang	Gansu	7	17	8	16	180	17	3	224	232
7	Changzhou	Jiangsu	15	12	27	30	5	101	165	12	18
8	Wuxi	Jiangsu	16	15	22	28	2	145	195	55	6
9	Ji'an	Jiangxi	11	25	10	19	22	60	130	29	46
10	Yichang	Hubei	63	7	54	8	34	1	167	174	27
11	Xuancheng	Anhui	163	1	32	76	141	118	44	22	174
12	Yingtan	Jiangxi	35	31	7	6	119	108	124	70	48
13	Ordos	Inner Mongolia	21	10	88	15	4	7	147	56	165
14	Zhenjiang	Jiangsu	89	135	87	148	8	70	85	3	13
15	Liaoyuan	Jilin	10	57	12	45	26	4	176	65	102
16	Huai'an	Jiangsu	12	36	20	35	172	21	178	30	67
17	Tonghua	Jilin	23	59	29	48	27	18	88	72	30
18	Yancheng	Jiangsu	8	23	14	33	171	43	180	48	78
19	Jieyang	Guangdong	187	196	4	5	35	49	142	158	148
20	Zhuhai	Guangdong	178	177	121	85	59	202	158	4	2
21	Zhangye	Gansu	71	72	118	92	97	103	2	193	210
22	Bengbu	Anhui	108	84	18	54	169	79	19	5	97
23	Rizhao	Shandong	14	34	21	46	79	133	135	67	21
24	Lijiang	Yunnan	137	73	182	123	13	8	5	145	222
25	Zhaoqing	Guangdong	194	171	37	56	41	34	163	15	16
26	Jiaxing	Zhejiang	185	206	199	222	3	52	159	20	5
27	Xuzhou	Jiangsu	6	20	11	43	194	69	148	73	140
28	Wuhu	Anhui	85	22	145	38	46	177	68	13	22
29	Xiangyang	Hubei	66	14	203	10	116	5	116	126	50
30	Yingkou	Liaoning	155	33	194	55	32	39	133	8	45
31	Sanya	Hainan	90	11	92	22	6	55	179	27	211
32	Chuzhou	Anhui	77	158	65	68	168	63	8	23	73
33	Liuzhou	Guangxi	50	21	157	203	40	6	7	134	77
34	Huizhou	Guangdong	165	154	187	135	43	161	173	21	1
35	Laibin	Guangxi	120	146	80	221	227	171	1	206	160
36	Xinxiang	Henan	9	29	13	39	162	183	65	54	95

			1-year job growth (2012-2013)	5-year job growth (2008-2013)	1-year wage growth (2012-2013)	5-year wage growth (2008-2013)	1-year GRP per-capita growth (2012-2013)	5-year GRP per-capita growth (2008-2013)	3-year FDI growth (2010-2013)	FDI/GRP (2013)	LQ for high value- added industry (2013)
Rank	City	Province	4 Ø	ц	÷€	ы́М	9 -	đù	ы С	Ē	ъс
37	Tongling	Anhui	55	110	45	93	74	61	174	34	28
38	Fuzhou	Jiangxi	57	19	31	7	89	84	151	106	146
39	Liupanshui	Guizhou	164	95	211	122	114	57	4	79	216
40	Luohe	Henan	70	90	99	49	147	221	72	11	12
41	Ma'anshan	Anhui	53	49	68	117	145	232	56	1	71
42	Binzhou	Shandong	61	71	40	17	88	175	197	155	11
43	Dandong	Liaoning	76	30	107	129	63	86	128	6	118
44	Yulin	Shaanxi	13	13	23	24	186	9	191	228	179
45	Yichun	Jiangxi	73	50	83	37	112	50	150	61	47
46	Chizhou	Anhui	24	62	34	52	175	78	119	36	105
47	Pingxiang	Jiangxi	19	79	25	74	111	93	115	77	76
48	Dezhou	Shandong	25	47	15	25	90	180	98	183	58
49	Kaifeng	Henan	81	18	71	13	184	178	25	76	74
50	Xianyang	Shaanxi	27	68	35	62	67	20	74	208	90
51	Quanzhou	Fujian	225	140	223	78	7	47	201	95	9
52	Shanwei	Guangdong	197	155	16	18	61	125	219	109	25
53	Jiujiang	Jiangxi	176	114	138	58	100	44	93	14	72
54	Xiaogan	Hubei	104	48	108	12	44	128	81	93	66
55	Putian	Fujian	49	27	57	29	196	122	166	112	33
56	Baotou	Inner Mongolia	117	125	143	176	11	30	171	57	26
57	Hebi	Henan	80	99	96	86	71	201	55	7	80
58	Tongchuan	Shaanxi	68	133	33	128	30	11	10	180	200
59	Linyi	Shandong	18	16	17	20	135	206	200	181	86
60	Lianyungang	Jiangsu	31	70	58	91	191	31	210	42	82
61	Deyang	Sichuan	22	43	39	80	161	123	161	150	34
62	Huludao	Liaoning	29	183	30	170	154	170	33	10	108
63	Ganzhou	Jiangxi	106	112	55	50	146	143	164	25	64
64	Shiyan	Hubei	112	52	130	71	64	27	53	152	52
65	Anshan	Liaoning	94	37	63	143	75	185	134	41	37
66	Zhoukou	Henan	20	54	26	26	214	194	38	101	99
67	Jiaozuo	Henan	52	53	50	118	106	207	62	60	32
68	Zhangzhou	Fujian	152	123	196	104	54	37	160	53	23
69	Xuchang	Henan	28	42	47	40	190	208	52	91	49
70	Weihai	Shandong	209	65	179	73	69	197	114	63	7
71	Nanchong	Sichuan	17	39	38	21	199	139	28	205	131
72	Huaibei	Anhui	41	82	112	87	48	104	59	26	184

Rank	City	Province	1-year job growth (2012-2013)	5-year job growth (2008-2013)	1-year wage growth (2012-2013)	5-year wage growth (2008-2013)	1-year GRP per-capita growth (2012-2013)	5-year GRP per-capita growth (2008-2013)	3-year FDI growth (2010-2013)	FDI/GRP (2013)	LQ for high value- added industry (2013)
73	Jingmen	Hubei	149	87	204	27	95	36	122	116	42
74	Anshun	Guizhou	107	46	94	44	173	23	27	129	111
75	Suihua	Heilongjiang	128	161	117	133	29	24	9	143	133
76	Jinzhou	Liaoning	113	152	197	119	57	91	63	9	114
77	Huzhou	Zhejiang	167	63	158	155	16	164	185	35	31
78	Jiangmen	Guangdong	211	147	111	59	96	218	208	46	8
79	Tai'an	Shandong	91	56	85	34	19	144	32	165	119
80	Zibo	Shandong	64	41	48	61	31	159	182	157	70
81	Zhongshan	Guangdong	220	127	150	79	86	211	205	102	4
82	Baoji	Shaanxi	56	134	103	158	72	53	26	204	41
83	Benxi	Liaoning	102	117	124	179	14	81	111	51	79
84	Meishan	Sichuan	46	28	78	14	198	147	141	104	120
85	Langfang	Hebei	150	40	153	70	39	146	155	68	59
86	Yantai	Shandong	161	126	120	146	36	155	157	89	14
87	Ningde	Fujian	139	26	190	23	195	83	78	168	53
88	Anqing	Anhui	42	75	28	57	215	136	86	78	104
89	Liaocheng	Shandong	59	101	46	94	77	157	120	192	36
90	Zhuzhou	Hunan	123	76	140	110	82	88	110	66	63
91	Ezhou	Hubei	171	116	215	107	81	33	168	99	29
92	Baoshan	Yunnan	181	60	93	64	38	32	29	105	194
93	Bozhou	Anhui	43	94	72	67	225	198	34	32	112
94	Luoyang	Henan	72	92	170	121	152	209	94	19	65
95	Zhoushan	Zhejiang	148	88	181	111	66	116	30	111	57
96	Chaozhou	Guangdong	216	210	9	42	58	179	203	162	68
97	Jincheng	Shanxi	36	64	82	89	93	85	73	92	185
98	Weifang	Shandong	109	109	109	98	33	148	187	132	38
99	Huangshan	Anhui	99	139	76	114	51	113	152	39	150
100	Tieling	Liaoning	58	148	61	130	94	97	76	38	190
101	Lu'an	Anhui	193	2	200	200	221	121	67	84	163
102	Zhumadian	Henan	32	35	43	41	218	188	50	122	126
103	Huangshi	Hubei	154	205	171	36	139	112	145	52	61
104	Mianyang	Sichuan	62	97	42	53	165	153	125	142	93
105	Suzhou	Anhui	40	103	49	126	208	156	22	45	172
106	Liaoyang	Liaoning	111	189	136	188	49	100	129	44	62
107	Mudanjiang	Heilongjiang	86	201	81	190	9	3	222	201	135
108	Xiangtan	Hunan	115	157	141	162	85	56	109	43	101
109	Yuxi	Yunnan	116	45	189	83	20	95	77	196	89

Rank	City	Province	1-year job growth (2012-2013)	5-year job growth (2008-2013)	1-year wage growth (2012-2013)	5-year wage growth (2008-2013)	1-year GRP per-capita growth (2012-2013)	5-year GRP per-capita growth (2008-2013)	3-year FDI growth (2010-2013)	FDI/GRP (2013)	LQ for high value- added industry (2013)
110	Qinzhou	Guangxi	79	51	110	60	223	190	20	18	199
111	Xinyu	Jiangxi 	48	231	90	112	177	92	215	62	20
112	Jilin City	Jilin	101	118	148	187	73	75	90	80	69
113	Heze	Shandong	69	67	73	32	155	45	96	172	189
114	Taizhou	Zhejiang	140	24	177	90	62	204	31	163	54
115	Jiuquan	Gansu	26	55	51	167	52	16	232	226	162
116	Qiqihar	Heilongjiang	33	220	185	216	156	142	14	74	83
117	Panjin	Liaoning	132	225	131	230	15	73	117	2	226
118	Shangrao	Jiangxi	199	138	97	72	176	111	139	37	106
119	Maoming	Guangdong	184	141	64	63	55	42	21	198	188
120	Dongguan	Guangdong	195	172	144	183	42	231	154	17	24
121	Weinan	Shaanxi	74	108	154	101	68	10	118	211	161
122	Yunfu	Guangdong	183	215	60	102	56	129	156	131	43
123	Wuzhou	Guangxi	39	121	77	211	126	25	228	216	56
124	Yangjiang	Guangdong	215	213	24	47	25	71	209	146	164
125	Fuxin	Liaoning	147	100	207	115	125	2	91	75	214
126	Shantou	Guangdong	196	32	155	31	65	212	217	177	35
127	Ankang	Shaanxi	82	96	147	120	123	28	11	200	212
128	Foshan	Guangdong	198	179	123	181	103	227	172	64	10
129	Luzhou	Sichuan	38	106	19	66	206	110	108	203	168
130	Panzhihua	Sichuan	30	81	198	192	21	106	220	156	84
131	Hanzhong	Shaanxi	97	137	102	103	127	22	82	213	123
132	Zhanjiang	Guangdong	177	188	74	127	24	119	23	194	122
133	Laiwu	Shandong	114	102	105	165	92	219	177	130	19
134	Siping	Jilin	130	202	167	194	50	64	18	115	125
135	Puyang	Henan	60	119	52	163	170	217	16	71	149
136	Heyuan	Guangdong	204	221	127	195	60	187	175	82	15
137	Tongliao	Inner Mongolia	84	149	86	75	133	35	48	209	187
138	Jingdezhen	Jiangxi	145	175	165	125	117	87	184	121	55
139	Jining	Shandong	67	58	56	77	105	203	99	103	156
140	Pu'er	Yunnan	162	143	139	145	28	15	162	175	144
141	Yueyang	Hunan	121	128	67	136	70	76	149	171	128
142	Fushun	Liaoning	133	164	106	198	110	65	181	59	115
143	Chenzhou	Hunan	136	115	162	160	151	90	84	31	180
144	Jingzhou	Hubei	100	193	84	134	179	51	83	189	98
145	Neijiang	Sichuan	92	223	44	174	185	74	75	179	81
146	Wuhai	Inner Mongolia	182	218	59	96	149	66	17	118	209

Rank	City	Province	1-year job growth (2012-2013)	5-year job growth (2008-2013)	1-year wage growth (2012-2013)	5-year wage growth (2008-2013)	1-year GRP per-capita growth (2012-2013)	5-year GRP per-capita growth (2008-2013)	3-year FDI growth (2010-2013)	FDI/GRP (2013)	LQ for high value- added industry (2013)
147	Songyuan	Jilin	45	182	36	219	102	72	70	140	193
148	Xianning	Hubei	131	200	164	51	192	77	126	90	109
149	Zunyi	Guizhou	122	93	125	65	203	46	43	199	157
150	Jinhua	Zhejiang	172	9	178	147	10	165	212	187	170
151	Yangquan	Shanxi	159	144	232	208	107	96	6	50	219
152	Suizhou	Hubei	97	83	146	95	187	134	97	160	92
153	Shaoguan	Guangdong	191	160	160	193	53	114	204	128	44
154	Sanmenxia	Henan	129	169	188	173	121	150	71	16	201
155	Loudi	Hunan	144	124	129	81	178	120	61	100	147
156	Lüliang	Shanxi	226	159	126	11	182	151	105	98	169
157	Baicheng	Jilin	156	163	175	178	37	12	123	135	203
158	Baishan	Jilin	188	130	209	149	101	19	131	81	192
159	Qinhuangdao	Hebei	169	168	220	213	104	215	144	28	60
160	Changde	Hunan	126	131	113	168	108	99	79	113	152
161	Qingyuan	Guangdong	179	204	115	154	98	220	214	125	17
162	Hulunbuir	Inner Mongolia	153	214	151	142	87	14	42	144	215
163	Shaoxing	Zhejiang	158	44	172	97	76	154	207	123	130
164	Beihai	Guangxi	228	113	218	140	84	38	206	169	94
165	Xinyang	Henan	34	74	53	100	228	222	49	94	153
166	Changzhi	Shanxi	93	132	133	161	158	117	64	107	154
167	Dongying	Shandong	157	120	91	150	18	172	202	197	103
168	Chaoyang	Liaoning	210	98	214	106	181	26	87	120	177
169	Handan	Hebei	51	77	62	132	189	224	101	87	143
170	Longyan	Fujian	199	122	213	108	209	80	170	151	75
171	Hengyang	Hunan	168	150	159	182	144	127	89	69	129
172	Guilin	Guangxi	75	104	104	205	131	135	60	217	127
173	Quzhou	Zhejiang	189	129	210	185	78	149	192	195	40
174	Yulin	Guangxi	83	78	66	109	222	131	218	223	96
175	Qujing	Yunnan	124	38	195	124	120	141	46	212	171
176	Zaozhuang	Shandong	54	61	70	84	138	205	213	184	167
177	Hengshui	Hebei	174	89	156	105	128	191	80	127	136
178	Fangchenggang	Guangxi	138	91	216	202	45	29	221	207	145
179	Shangqiu	Henan	65	69	41	82	224	225	45	137	173
180	Leshan	Sichuan	142	227	134	152	113	109	186	178	88
181	Wenzhou	Zhejiang	229	222	221	229	12	199	35	166	51
182	Chifeng	Inner Mongolia	96	178	98	69	153	54	229	230	186
183	Yiyang	Hunan	146	136	186	184	160	107	113	148	116

			1-year job growth (2012-2013)	5-year job growth (2008-2013)	1-year wage growth (2012-2013)	5-year wage growth (2008-2013)	1-year GRP per-capita growth (2012-2013)	5-year GRP per-capita growth (2008-2013)	3-year FDI growth (2010-2013)	FDI/GRP (2013)	LQ for high value- added industry (2013)
Rank	City	Province	1-yea (2012	5-ye (200	1-yea (2012	5-ye (200	1-yea grow	5-ye grow	3-ye (2010	FDI/	LQ fc adde
184	Zhaotong	Yunnan	175	86	202	138	134	58	15	221	231
185	Baoding	Hebei	207	66	227	116	124	163	169	117	139
186	Suining	Sichuan	78	211	116	166	201	126	58	191	138
187	Tangshan	Hebei	180	153	231	204	80	162	132	114	85
188	Shizuishan	Ningxia	199	145	208	209	118	140	226	229	39
189	Nanyang	Henan	141	142	95	113	205	229	51	124	110
190	Meizhou	Guangdong	192	208	79	139	91	192	143	141	159
191	Sanming	Fujian	221	194	191	186	159	59	153	185	124
192	Anyang	Henan	105	111	149	141	207	223	57	110	141
193	Xingtai	Hebei	173	105	205	131	164	214	100	88	142
194	Huainan	Anhui	203	151	201	164	148	168	54	83	191
195	Zigong	Sichuan	47	216	119	226	204	158	137	222	100
196	Shuozhou	Shanxi	190	80	217	99	143	40	190	149	229
197	Jinzhong	Shanxi	134	190	192	169	132	169	37	136	202
198	Yan'an	Shaanxi	37	85	101	159	166	167	69	231	230
199	Yuncheng	Shanxi	230	173	75	171	99	152	227	225	117
200	Heihe	Heilongjiang	186	199	229	215	17	105	121	58	228
201	Dazhou	Sichuan	44	107	89	88	220	166	199	210	218
202	Yongzhou	Hunan	166	186	212	212	200	186	127	40	182
203	Pingdingshan	Henan	110	166	169	191	183	228	40	86	158
204	Cangzhou	Hebei	199	192	161	197	136	189	104	159	132
205	Guangyuan	Sichuan	87	198	137	201	213	94	47	182	213
206	Lishui	Zhejiang	222	191	166	199	217	173	24	161	137
207	Chengde	Hebei	88	162	114	207	157	193	216	215	134
208	Huaihua	Hunan	206	184	168	189	129	89	140	186	208
209	Jiamusi	Heilongjiang	231	230	193	206	23	68	92	97	207
210	Zhangjiakou	Hebei	218	174	225	225	150	182	41	119	151
211	Shuangyashan	Heilongjiang	103	232	184	232	163	41	12	188	220
212	Yibin	Sichuan	213	197	180	156	219	174	188	214	87
213	Xinzhou	Shanxi	160	176	173	151	115	62	224	227	223
214	Shaoyang	Hunan	127	185	163	196	174	176	106	167	195
215	Nanping	Fujian	224	212	228	220	202	137	146	176	91
216	Ya'an	Sichuan	135	187	174	180	140	115	225	219	196
217	Hechi	Guangxi	170	195	132	228	216	226	13	154	181
218	Ulanqab	Inner Mongolia	119	180	142	175	230	216	39	96	198
219	Yichun	Heilongjiang	217	209	224	153	47	181	196	108	217
220	Daqing	Heilongjiang	212	226	176	218	122	132	107	153	205

Rank	City	Province	1-year job growth (2012-2013)	5-year job growth (2008-2013)	1-year wage growth (2012-2013)	5-year wage growth (2008-2013)	1-year GRP per-capita growth (2012-2013)	5-year GRP per-capita growth (2008-2013)	3-year FDI growth (2010-2013)	FDI/GRP (2013)	LQ for high value- added industry (2013)
221	Hezhou	Guangxi	143	156	135	172	210	210	183	147	176
222	Linfen	Shanxi	214	203	152	214	137	196	102	170	178
223	Chongzuo	Guangxi	219	217	183	223	212	102	66	190	175
224	Guigang	Guangxi	95	167	69	177	226	213	230	218	155
225	Baise	Guangxi	125	170	122	227	211	98	231	232	197
226	Bayannur	Inner Mongolia	223	219	226	157	197	138	103	173	206
227	Datong	Shanxi	151	224	206	210	130	195	193	139	204
228	Fuyang	Anhui	205	207	128	144	231	200	138	164	183
229	Zhangjiajie	Hunan	208	165	222	224	188	160	95	133	221
230	Guang'an	Sichuan	118	181	100	137	232	184	112	202	225
231	Jixi	Heilongjiang	232	229	219	217	167	130	136	138	224
232	Qitaihe	Heilongjiang	227	228	230	231	229	230	223	220	227

## Appendix: Data and Methodology

#### **CLASSIFICATION AND DESIGNATION OF CITIES**

Chinese cities can vary dramatically in terms of population size, geography, strategic significance to the national economy, and central government policy influence. Under the central planning regime, their development can also differ from one another's under the influence of various government policies. Hence, this ranking report classifies Chinese cities into three categories—first-, second-, and third-tier cities—that follow the conventional designation and hierarchy of cities in China.

There is a broad consensus, but no universal agreement, as to which cities sit atop this hierarchy, in the first tier. This ranking report focuses on cities classified as prefecture-level cities or above.<sup>128</sup> It defines the first-tier cities as the municipalities directly governed by the Chinese central government (Beijing, Chongqing, Shanghai, and Tianjin). The second-tier cities consist of the capital cities of provinces and five cities (Dalian, Ningbo, Qingdao, Shenzhen, and Xiamen) with special plans approved by the Chinese central government.<sup>129</sup> The rest of the cities in our sample naturally fall into the third-tier city category. It is widely known that first- and second-tier cities have typically received more resources from the Chinese central government, are shaped more heavily by central policies, and, hence, tend to possess more economic power than the third-tier cities. Therefore, to make cities more comparable with their peers, we rank the first- and second-tier cities as one group and the third-tier cities as a separate group.

In 2013, China had a total of 658 cities, of which 290 are prefecture-level and above.<sup>130</sup> Given the change of the number of cities over time (cities are continuing to be incorporated) and missing or unavailable data for some cities (Hailar, Inner Mongolia; Chaohu, Anhui; Huanggang, Hubei; Sansha, Hainan; Ziyang, Sichuan; Bijie, Guizhou; Tongren, Guizhou; Lincang, Yunnan; Lhasa, Tibet; Shangluo, Shaanxi; Jiayu Pass, Gansu; Jinchang, Gansu; Baiyin, Gansu; Tianshui, Gansu; Wuwei, Gansu; Pingliang, Gansu; Dingxi, Gansu; Longnan, Gansu; Xining, Qinghai; Haidong, Qinghai; Wuzhong, Ningxia; Guyuan, Ningxia; Zhongwei, Ningxia; and Karamay, Xinjiang), we include only 266 cities in this ranking report. We classify these 266 cities into three distinct tiers according to their respective economic development status. There are four first-tier cities, 30 second-tier cities, and 232 third-tier cities.

#### DATA AND VARIABLES

Our main sources of data are the 2009, 2013, and 2014 editions of the China City Statistical Yearbook. Each yearbook publishes data from the year before—e.g., the 2014 edition provides data for 2013. Due to data abnormality for some cities, we accordingly sought out other data sources and adjusted for consistency for those cities (further discussion below).

The Best-Performing Cities China composite index consists of nine indicators, which include seven growth measures and two stock measures. Specifically, the index measures the growth in jobs, wages, and gross regional product (GRP) per capita over one- (2012-2013) and five-year (2008-2013) periods. These six growth measures are commonly used to measure the performance of various economies. The one-year growth measures intend to capture the recent dynamics for Chinese cities whereas the five-year growth measures aim at tracing a longer economic development trajectory and adjusting for variations in business cycles. The seventh growth measure in the index is for three-year FDI growth (2010-2013). An existing body of research suggests that foreign direct investment (FDI) plays an essential role in recent economic development in China. In 2013, China was the world's second-largest recipient of FDI, after the United States.<sup>131</sup>

Our index hence incorporates two measures that depict the amount of foreign capital actually used: In addition to the three-year FDI growth measures, which reflect each city's economic openness and past economic performance while indicating its future growth potential, the index includes cities' FDI/GRP ratio, which measures the use of foreign capital for local economic development.

The ninth and final component of the index is the location quotient (LQ) for high value-added industry jobs in 2013. This report defines the following categories as high value-added industries: manufacturing; transport, storage and post; information transmission, computer services and software; financial intermediation; real estate; and leasing and business services. LQ is a ratio that compares the concentration of a resource or activity, in this case employment, in a defined area to that of a larger area. In this index, an LQ greater than 1 indicates that a city's high value-added industries have a greater share of the local area employment than other Chinese prefecture-level-and-above cities as a whole. Conversely, an LQ of less than 1 indicates a smaller share of employment. This ratio intuitively measures the ability of cities to generate greater economic benefits (such as profits and wages) for future development.

As discussed above, some unusual data reporting required alternative data sources and adjustments to ensure consistency. Specifically, certain 2013 data for the jobs, wages, GRP, and LQ for high value-added industry jobs for cities in Guangdong Province appeared to be inconsistent due to a change in estimation methods and other unidentifiable reasons. As a result, the 2013 data for these cities were not comparable across the 2012-2013 period and yielded ranking results that may not reflect the true performance status of these cities. To address these issues and better reflect the economic dynamics of these cities, we referred to other official statistical yearbooks and government websites to adjust some data points for Guangdong cities. Lastly, since LQs usually do not change dramatically from one year to the next, this report replaces 2013 LQs with 2012 values for these affected cities.

#### METHODOLOGY IN DETAIL

Our ranking measures economic performance of cities in China by focusing on nine indicators. These indicators are then combined into an index by which the 266 cities are ranked for the year 2013.

Several ranking methods have been developed and applied in different types of studies. We referred to various ranking publications and tried several widely used methods, including the principal component method, the Borda method, the weighted rank approach, and the weighted z-score approach. Each of these four approaches has its pros and cons. By and large, the Borda method and the weighted rank approach, which we used for our previous Best-Performing Cities series for the U.S. and Asia, produced similar ranking results. On the other hand, the ranking product from the principal component methods is more in line with the weighted z-score method. We eventually adopt a weighted z-score approach, as it better describes the current developmental status of most cities in China.

Constructing our ranking index by the weighted z-score method involves five steps. First, we calculated the arithmetic mean and the standard deviation for each indicator. Second, we took the value for each indicator and subtracted from it the arithmetic mean for that indicator and divided this differential by the standard deviation, yielding a z-score. Third, we assigned weights for each of the nine indicators (Table 3). In our index, we allocate more weight toward FDI and LQ variables given that various theoretical and empirical studies suggest that these two sets of indicators have played a critical role in driving China's economic development and growth. Multiplying the z-scores for each indicator for all cities by assigned weight for each indicator yields the weighted z-scores. Fourth, we summed up the z-scores associated with each of the nine

variables for each city and this gave us a sum of weighted z-scores for each city. Finally, based on the total weighted z-scores, we ranked 34 first- and second-tier cities in one group and 232 third-tier cities in another group.

Table 3. Indicators and their respective weights								
Indicator	Weight							
1-year job growth (2012-2013)	0.100							
5-year job growth (2008-2013)	0.100							
1-year wage growth (2012-2013)	0.100							
5-year wage growth (2008-2013)	0.100							
1-year GRP per-capita growth (2012-2013)	0.100							
5-year GRP per-capita growth (2008-2013)	0.100							
3-year FDI growth (2010-2013)	0.125							
FDI/GRP (2013)	0.125							
LQ for high value-added industry employment (2013)	0.150							



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