BEST-PERFORMING CITIES CHINA 2017

THE NATION'S MOST SUCCESSFUL ECONOMIES

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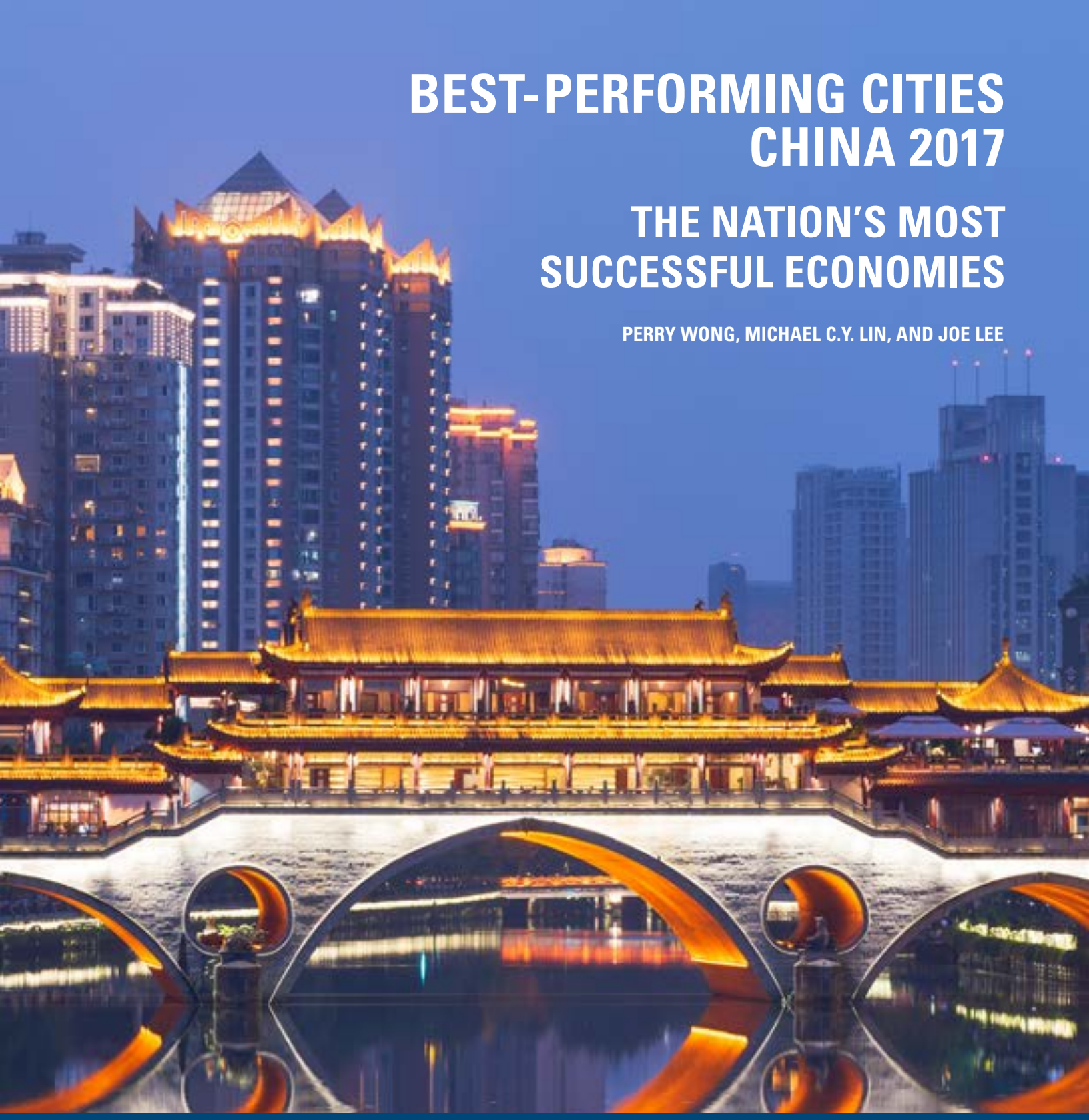

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EXECUTIVE SUMMARY

This third edition of the Milken Institute's Best-Performing Cities (BPC) China series analyzes the latest and most comprehensive official data as it continues tracking the recent economic performance of Chinese cities. The main purpose of this series is to offer a tool for monitoring and evaluating the economic dynamics of cities in China and help improve their performance. In addition, this work provides businesses with insight into regional economic trends, helping them to explore potential investment opportunities in China.

Following the methodological framework used in our previous BPC China reports, the 2017 rankings incorporate nine indicators: one-year (2014-2015) and five-year (2010-2015) job growth, one- and five-year wage growth, one- and five-year gross regional product (GRP) per-capita growth, three-year (2012-2015) foreign direct investment (FDI) growth, the FDI/GRP ratio measuring the use of foreign capital for local development (2015), and the location quotient (LQ) for high value-added industry employment (2015). As in previous editions, we present two separate rankings—one for first- and second-tier cities and the other for third-tier cities—to reflect the fact that cities fall into different developmental stages and urban hierarchies. The former group are normally the forerunners of urbanization, larger in size, and receive more support from the central government.

Since 2007, China's gross domestic product (GDP) growth has been decelerating. In 2015, it was 6.9 percent, falling below 7 percent for the first time since 1991. The rate dipped further, to 6.7 percent, in 2016.[1] Recognizing its economic slowdown and the challenges it brings, China's government launched the "New Normal" concept marked by low-to-moderate economic growth. To cope with these challenges, China has set new goals in its 13th Five-Year Plan (FYP), notably that of doubling its 2010 GDP and per-capita income by 2020. Several key strategies were also proposed in the plan. First, China wants to transform its economy from being the "world factory" to an "entrepreneurial and innovation base," where more high value-added industries will be the driving force of growth. Second, China has been accelerating urbanization, promoting more balanced regional development, and spawning and strengthening regional clusters where domestic consumption will be critical in driving economic growth. Third, China is developing more eco-friendly cities and industries. In addition to the 13th FYP, the government has also launched the "One Belt, One Road (OBOR)" initiative to strengthen trade and reignite economic growth in various regions inside China and across Asia. Unlike previous strategies to attract foreign investment, the government in the last few years has encouraged China Inc. to make investments and to sell its products in international markets. Under the central plan, OBOR not only envisages more investment in foreign countries through infrastructure projects, but also encourages linkage of domestic infrastructure with the "Silk Road Economic Belt" and "Maritime Silk Road." This initiative can also help reduce overcapacity in certain sectors, including steel production and construction.

The long-term effects of these programs on China's overall economic growth remain to be seen. Nonetheless, quantitative and qualitative changes in the urban and regional economic landscape are already underway. In addition to the well-known Yangtze River Economic Belt and the Pearl River Delta Economic Zone, more regional clusters such as the Jing-Jin-Ji Metropolis Region (BeiJING, TianJIN and JI, an initial for Hebei Province) and the Diamond Economic Zone (linking Chengdu, Chongqing, Xi'an and Kunming) are emerging or expanding. Increasing numbers of cities are now improving their infrastructure and becoming more integrated into regional clusters. Guiyang (ranked third among first- and second-tier cities) and some cities like Zunyi (ranked 5th among the third-tier cities) in Guizhou Province are examples. Guizhou used to be one of the least accessible and poorest areas in China. However, this area has been booming in recent years. From 2011 through 2016, its rate of economic growth has been among the top three in China.[2] The recent rise of Guizhou can be attributed to improvement in its transportation networks and industrial development strategies. Guiyang now has a high-speed rail connection to Beijing, Shanghai, and Guangzhou. It has also been cultivating the big data sector as a core industry. Guiyang and Guizhou as a whole have assumed greater role in the Pan-Pearl River Delta (Pan-PRD) collaboration.[3]

The emergence and expansion of regional clusters are also highlighted in our rankings. Three of the four anchor cities in the Diamond Economic Zone are ranked in the top 10 first- and second-tier cities: Chengdu (ranked 1st), Chongqing (ranked 2nd) and Kunming (ranked 8th), with Xi'an ranked 11th. Many cities among the first- and second-tier cities, such as Nanjing (ranked 5th) and Shanghai (ranked 6th), and third-tier cities including Nantong (ranked 1st), Taizhou (ranked 6th), Yangzhou (ranked 8th), and Suzhou (ranked 10th), lie along the Yangtze River Economic Belt. Shenzhen (ranked 4th among first- and second-tier cities) and Foshan (ranked 3rd among the third-tier cities) are cities in the Pearl River Delta Economic Zone. There are also cities in central China (like Ji'an) not quite belonging to any of the existing regional clusters yet which also perform well in this year's rankings. However, none of the cities in northeastern China are on our top 10 list. This suggests that the region may need better strategies to restructure its industrial composition by not overly replying on heavy industries and developing more high value-added services.

Here are some key findings from the 2017 BPC China rankings:

- Ranked fifth last year and first the year before, Chengdu, Sichuan regains the crown in our first- and second-tier city ranking. Its robust performance can be largely attributed to its development of diverse and high value-added industries and encouragement of innovation and entrepreneurship. In addition, it has many universities, colleges, and research institutions that provide an abundance of talent to the local labor market. This city also has lower land and labor costs compared with other major cities such as Beijing. All these factors helped Chengdu to remain prosperous.

- Moving up from ninth to eighth last year, Chongqing now grabs second place. Like its neighbor Chengdu, Chongqing also has diverse and high value-added industries, a deep talent pool, and lower business costs. In addition, it has a pivotal location at the intersection of the Yangtze River Economic Belt and the "Silk Road Economic Belt." All these characteristics contributed to Chongqing's phenomenal economic performance. Two other cities in the Yangtze River Economic Belt are also ranked among the top 10 first- and second-tier cities: Nanjing (ranked 5th) and Shanghai (ranked 6th). Shenzhen in the Pearl River Delta Economic Zone is ranked fourth. Guiyang was ranked first last year and stands at third place this year. Nanchang was ranked seventh last year and places ninth this year.

- Zhengzhou (ranked 7th), Kunming (ranked 8th), and Qingdao (ranked 10th) are newcomers to our top 10 list for first- and second-tier cities. These cities are all important regional logistics hubs. The OBOR initiative further strengthens their pivotal role in logistics and trade.

- Nantong grabs the top spot this year among third-tier cities, having reached the top 10 in the last two years. Its strong performance can be attributed to its diverse industries, abundant talent pool, and well-connected transportation network. Being part of the Yangtze River Economic Belt also bolsters its competitive advantages.

- Taizhou (ranked 6th), Yangzhou (ranked 8th), Yichang (ranked 9th), and Suzhou (ranked 10th) are other cities in the Yangtze River Economic Belt entering the top 10 third-tier city index this year. Overall, these cities together with Nantong have shown a more robust and stable economic performance than other cities in the top 10 list. Ji'an was ranked ninth in 2015 and No. 20 in 2016, and bounces back to fourth place this year.

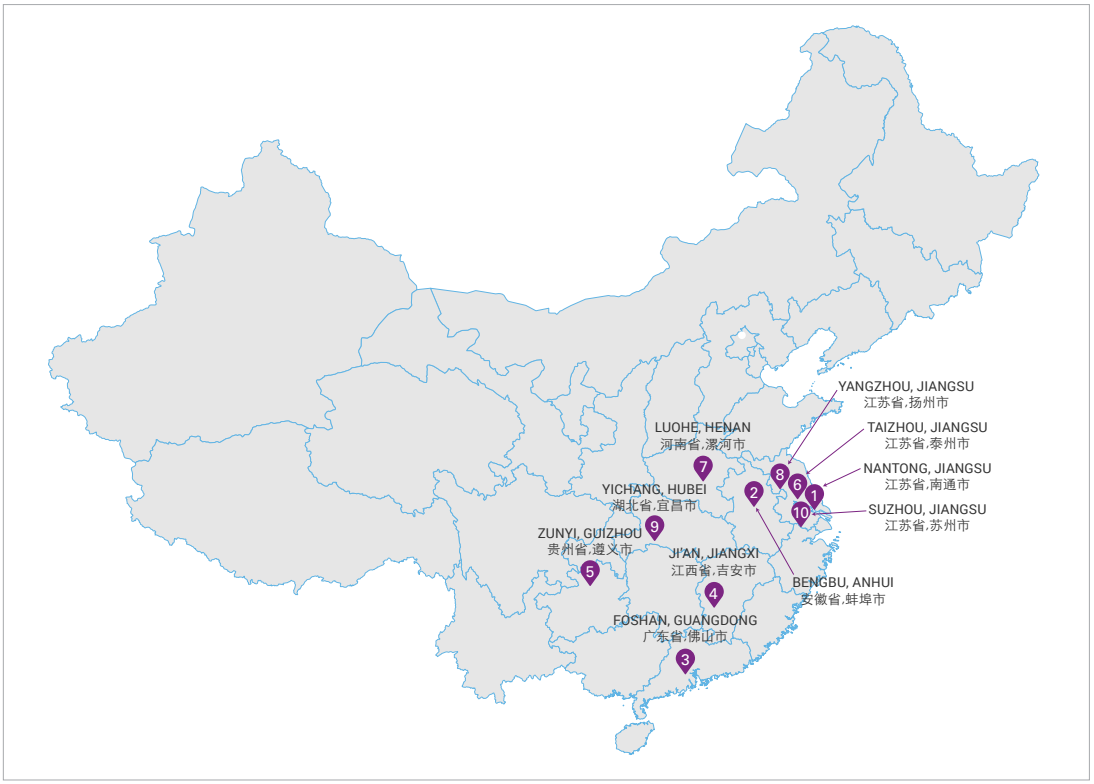
- Bengbu (ranked 2nd), Foshan (ranked 3rd), Zunyi (ranked 5th), and Luohe (ranked 7th) are newcomers to our BPC top 10 list among the third-tier cities. The rise of Foshan and Zunyi may be related to the progress made by the regional clusters they belong to. Bengbu and Luohe may have benefited largely from the OBOR initiative. However, these two cities will need to develop more robust industrial bases in order to keep up their growth momentum.

Table 1. Best-Performing Cities China 2017

RANK	FIRST- AND SECOND-TIER CITIES	RANK	THIRD-TIER CITIES
1	Chengdu, Sichuan (四川省， 成都市)	1	Nantong, Jiangsu (江苏省， 南通)
2	Chongqing (重庆市)	2	Bengbu, Anhui (安徽省， 蚌埠)
3	Guiyang, Guizhou (贵州省， 贵阳市)	3	Foshan, Guangdong (广东省， 佛山)
4	Shenzhen, Guangdong (广东省， 深圳市)	4	Ji'an, Jiangxi (江西省， 吉安)
5	Nanjing, Jiangsu (江苏省， 南京)	5	Zunyi, Guizhou (州省， 遵义市)
6	Shanghai (上海市)	6	Taizhou, Jiangsu (江苏省， 泰州市)
7	Zhengzhou, Henan (河南省， 郑州市)	7	Luohe, Henan (河南省， 漯河)
8	Kunming, Yunnan (云南省， 昆明市)	8	Yangzhou, Jiangsu (江苏省， 扬州)
9	Nanchang, Jiangxi (江西省， 南昌市)	9	Yichang, Hubei (湖北省， 宜昌)
10	Qingdao, Shandong (山东省， 青岛市)	10	Suzhou, Jiangsu (江苏省， 苏州市)

Figure 1a. Top 10 first- and second-tier cities

Figure 1b. Top 10 third-tier cities



INTRODUCTION

China's economy is in transition. Against that backdrop of change, the Milken Institute has, since 2015, published three editions of the Best-Performing Cities (BPC) China rankings. Following the structure of our previous reports, our 2017 BPC China ranking utilizes the most recently released official data to construct a composite index for tracking the economic performance of Chinese cities.

The main goals of these rankings are threefold:

- First, they provide policymakers, planners, practitioners, investors, and academics with a tool to monitor and evaluate the economic performance of Chinese cities.
- Second, to provide guidance for Chinese cities in making improvements.
- Third, providing a channel for exploration of relatively untapped markets and business opportunities in the increasingly eclectic development landscape of China.

The index incorporates nine indicators, for periods ending in 2015: One- and five-year job growth, one- and five-year wage growth, one- and five-year gross regional product (GRP) per-capita growth, three-year foreign direct investment (FDI) growth, proportion of FDI to GRP, and the location quotient (LQ) for high value-added industry. Given that first- and second-tier cities have typically received more support from the central government in the past and are at different developmental stages compared with third-tier cities, this index has two categories. The large-city group includes the first- and second-tier cities, while the small-city group comprises the third-tier cities. The large- and small-city groups are ranked separately, to present more meaningful comparisons.

In the large-city group, Chengdu and Chongqing take first and second place, respectively. Both cities have diverse high value-added industries, a high-quality talent pool, and lower business costs compared with counterparts such as Beijing, Shanghai, and Shenzhen. In addition, these two cities are the twin anchors for the grand "China Western Development" initiative that has been underway for more than 15 years and was intensified in the last ten years. All these factors have contributed to their recent robust showing. Two other cities—Kunming and Xi'an—in the Diamond Economic Zone are ranked eighth and 11th, respectively. This signals the growing economic power of this regional cluster. Shenzhen in the Pearl River Delta Economic Zone was ranked fourth and Nanjing and Shanghai in the Yangtze River Economic Belt fifth and sixth, respectively. This shows that the two long-standing regional clusters continue their sound economic performances. Guiyang continues to shine, holding third place in our first-tier ranking. Its recent strength can be largely attributed to improved transportation systems and development of high value-added industries, such as the big data sector. Guiyang is becoming better integrated with the Pearl River Delta Economic Zone. The strong performers among the rest of the cities in the first-tier top 10 list include Zhengzhou (ranked 7th), Nanchang (ranked 9th), and Qingdao (ranked 10th). Their success may be largely connected with the OBOR initiative.

Top-ranked Nantong, together with three other Jiangsu cities—Taizhou (ranked 6th), Yangzhou (ranked 8th), and Suzhou (ranked 10th)—occupy four places among the top 10 small city list. They are all members of the Yangtze River Economic Belt. These cities have developed more diversified and higher value-added industries, and have more flexible and attractive policies for investment and industrial development. Other cities in the third-tier top 10 include Bengbu (ranked 2nd), Foshan (ranked 3rd), Ji'an (ranked 4th), Zunyi (ranked 5th), Luohe (ranked 7th), and Yichang (ranked 9th). Zunyi may have been lifted by the strong performance of Guizhou Province due to improving transportation networks. Ji'an was ranked ninth in our 2015 ranking, but dropped to No. 20 last year. Yichang has shown relatively stable economic performance in our ranking. Bengbu, Foshan, and Luohe have seen big jumps from the past two years.

One interesting thing to note is that a large portion of cities in the top 10 lists falls within the Yangtze River Economic Belt, Pearl River Delta Economic Zone, and the Diamond Economic Zone. In addition, these cities have relatively stable rankings in our three reports. In contrast, cities that are not part of any regional clusters tend to fluctuate more in our rankings. What may explain the discrepancy is that most of these cluster cities enjoy "agglomeration economies," meaning that they can have a better division of function based on their advantages and cooperate with other members in the regional system. Moreover, these cities tend to have more open policies that encourage investment, innovation, and entrepreneurship. One particular point worth noting is that these economies are well connected to global markets and experience more endogenous growth, as well as being more market-driven. Also, many of them have developed more diversified and high value-added industries. All these factors may allow them to continue to perform well, and may provide lessons for other cities.

OVERVIEW: CHINA'S ECONOMIC DEVELOPMENT

China's economic growth has been slowing in recent years. The growth rate of gross domestic product (GDP) in 2015 was 6.9 percent, the slowest in 25 years.[4] Downward pressure on the economy continued, as the growth rate dipped in 2016 to 6.7 percent.[5] Acknowledging that the economy is going through structural changes and reform, China set the goal for average GDP growth at 6.5 percent in its latest 13th Five Year plan (13th FYP) (2016-2020), and aims to boost GDP per capita from $4,400 to $12,000-$13,000 by 2020. To reach these goals, the government aims to promote entrepreneurship and innovation and incentivize the service sector to expand. During the period of the 13th FYP, China is also stepping up its efforts to promote growth of the tertiary sector, as a means of raising its contribution to GDP growth and reducing the Chinese economy's dependence on secondary and export-driven industries.

Since the 12th FYP, the Chinese government has placed greater emphasis on moving industries up the value chain. In particular, China intends to transform itself from a "world factory" into an economy that encourages intelligent manufacturing (epitomized by the *Made in China 2025* initiative), innovation, and entrepreneurship. It also plans to continue investing more in high value-added industries in such fields as big data, the Internet (powered by the China Internet Plus initiative), healthcare, and green energy. In addition, China plans to move from a government investment-based economy to a consumption-driven one, where the purchasing activities of domestic consumers become the main driver of economic development. Compared to most western countries, China's state-owned fixed asset investment has remained relatively high, and has played a key role in driving its economic growth. Such investment during the first half of 2016 had grown by 23.5 percent over the same period in 2015.[6] Nonetheless, recent evidence shows that China is moving toward a more consumption-based economy. Total retail sales were RMB 30 trillion in 2015, and contributed to approximately two-thirds of China's 2015 economic growth.[7]

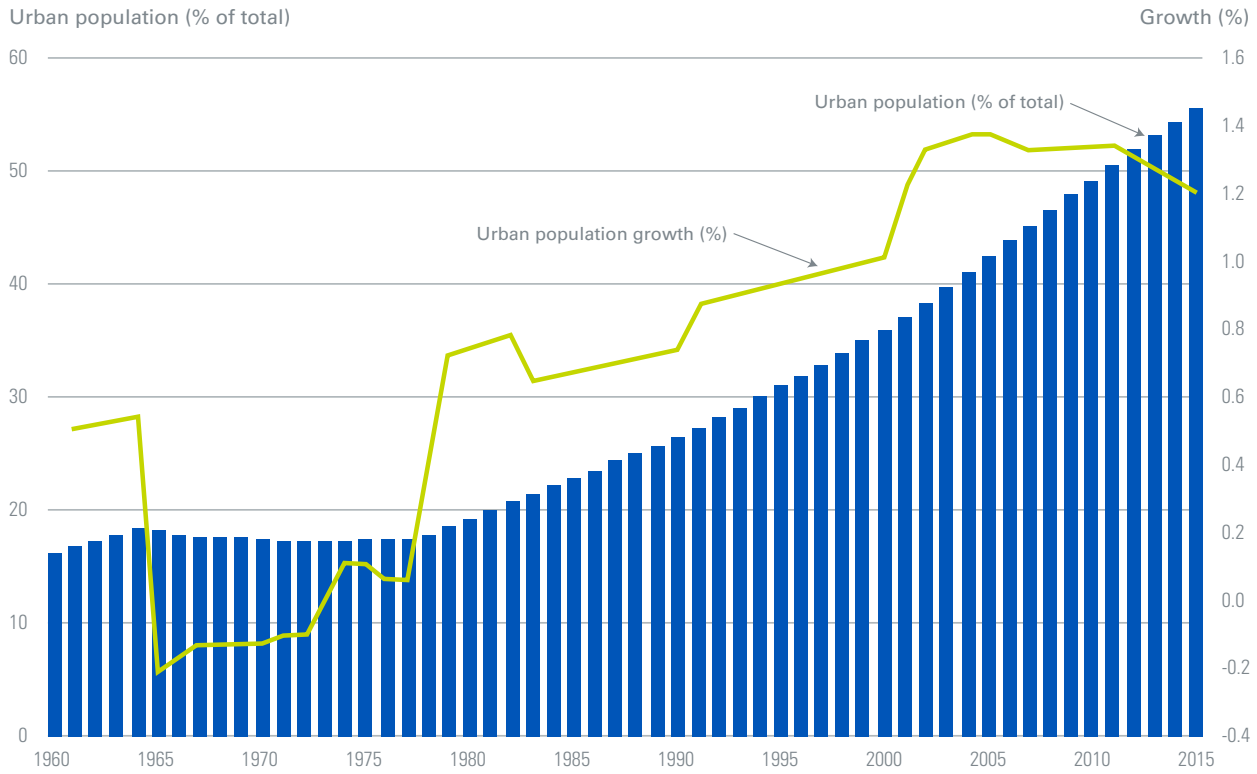
Urbanization is viewed as an important way to foster a more robust consumption-based economy in China. In the last 40 years, regional economic development, infrastructure building, and urbanization have unleashed waves of modernization and transformation on China's society and economy. Moving forward, China will continue to build up infrastructure in cities, where about 60 percent of Chinese residents currently reside. In addition to building up lesser developed third- and fourth-tier cities as local governments have done, the central planners have envisioned a more innovative and longer-term development path to address issues of environmental degradation, constraints on natural resources, and spatial elements.

Since 1992, China has established 19 national-level new economic zones. In March 2017, the central government announced a plan for the development of Xiongan New Area, situated in the center of the triangle formed by Beijing, Tianjin, and Shijiazhuang (all first- and second-tier cities). Xiongan will be another anchor special economic development zone liWke the ones in Shenzhen, Guangdong and Pudong, Shanghai. The purpose of this new strategic economic zone is to explore different urbanization and economic development concepts in the heartland of China. The policies will help foster the latest wave of innovation and economic success.[8] Although there is little detail in the public space on how this economic zone is to be developed, it seems, according to Xinhua News Agency, that the rollout will be in stages. It will start on a 100 square km base and will have expanded to 2,000 square km in the final stage.[9] It will address the development weak spots of Beijing and Tianjin, and, equally, help stimulate lagging economic performance in Hebei Province. Its aim is to integrate these economies in addressing environmental concerns, better resource utilization (water), and a sound economic structure.

REGIONAL DEVELOPMENT

Since the early 1980s, the number of people living in China's urban areas has dramatically increased. The urban population surpassed 20 percent in 1981 and 50 percent in 2011. In 2015, China's urban population reached 55.6 percent. Since 1974, there has been a long-standing trend of an increasing rate of urban population growth. After 2000, this growth rate stayed above 1 percent. Although it has been slowing since 2010, the average growth rate from 2010 to 2015 remains at 1.29 percent (Figure 2).

Figure 2. Urban population and growth in China (1960-2015)



Source: Authors' drawing based on data from the World Bank and The United Nations Population Division's World Urbanization Prospects.

China is becoming more urbanized, but the level of urbanization is not even across the nation's landscape. Some cities such as Shanghai have gone through several waves of expansion through urbanization, while in other cities (western and inland cities in particular), the process started fairly recently. The pioneers of urbanization can normally attract more foreign investment and tend to have more high value-added industries. On the other hand, newly urbanized areas tend to receive more domestic investment and attract more manufacturing industries from areas that had urbanized earlier.[10]

As urbanization is still underway in China, there are also some new trends in urban and regional development. First, more regional clusters have emerged and driven China's economic growth. Second, many urban and regional clusters are undergoing changes in their spatial structures in line with the principle of "coordination" in the 13th FYP. Third, the "green" principle of the 13th FYP has also shaped China's urban and regional development, encouraging more eco-friendly approaches.

The Pearl River Delta Economic Zone anchored by Shenzhen, and the Yangtze River Economic Belt anchored by Shanghai, are two of the earliest-formed and most well-known regional clusters. The Pearl River Delta Economic Zone has long been an economically strong cluster and has been known for its manufacturing. Nevertheless, the impact of the recent global recession and rising wage levels have eroded their cost competitiveness. In the face of these challenges, many cities in the Pearl River Delta Economic Zone took measures to transform their industrial base. For instance, Dongguan is known as a manufacturing base for such products as electronics and shoes, but has been losing manufacturing jobs in recent years. Its GDP growth plummeted to 1.3 percent in the

first quarter of 2012. To address these challenges, the city, in coordination with the provincial government, decided to transform and upgrade its industrial structure. One of the key strategies is to move into high-end manufacturing such as smartphones and robots. In 2014, the city government proposed a policy that encourages robot manufacturing.[11] These strategies have successfully rebooted Dongguan. Its GDP growth in 2015 was 8 percent and in 2016 8.1 percent.[12]

The Yangtze River Economic Belt is another long-established regional cluster along Asia's longest river. Anchored by Shanghai, this still-growing cluster has been one of the key drivers of China's economic growth. In 2016, the central government approved a plan[13] extending the cluster from Shanghai, Jiangsu Province and Zhejiang Province into Anhui Province. In addition to spatial expansion, changes to its industrial structure are underway. For example, Hangzhou in Zhejiang Province used to be known for manufacturing, particularly prior to 2014. Nonetheless, the labor- and resource-driven growth that the city has been relying on can no longer be sustained. Since 2014, it has been cultivating Internet-related industries and crafting itself as an innovation and entrepreneurial hub. The new industrial focus also facilitates the upgrade of manufacturing through application of technology. In 2015, Hangzhou's GDP growth was 10.2 percent.[14] Another example is Hefei in Anhui Province. Hefei has recently tried to create new industrial pillars, notably the artificial audio intelligence industry.[15]

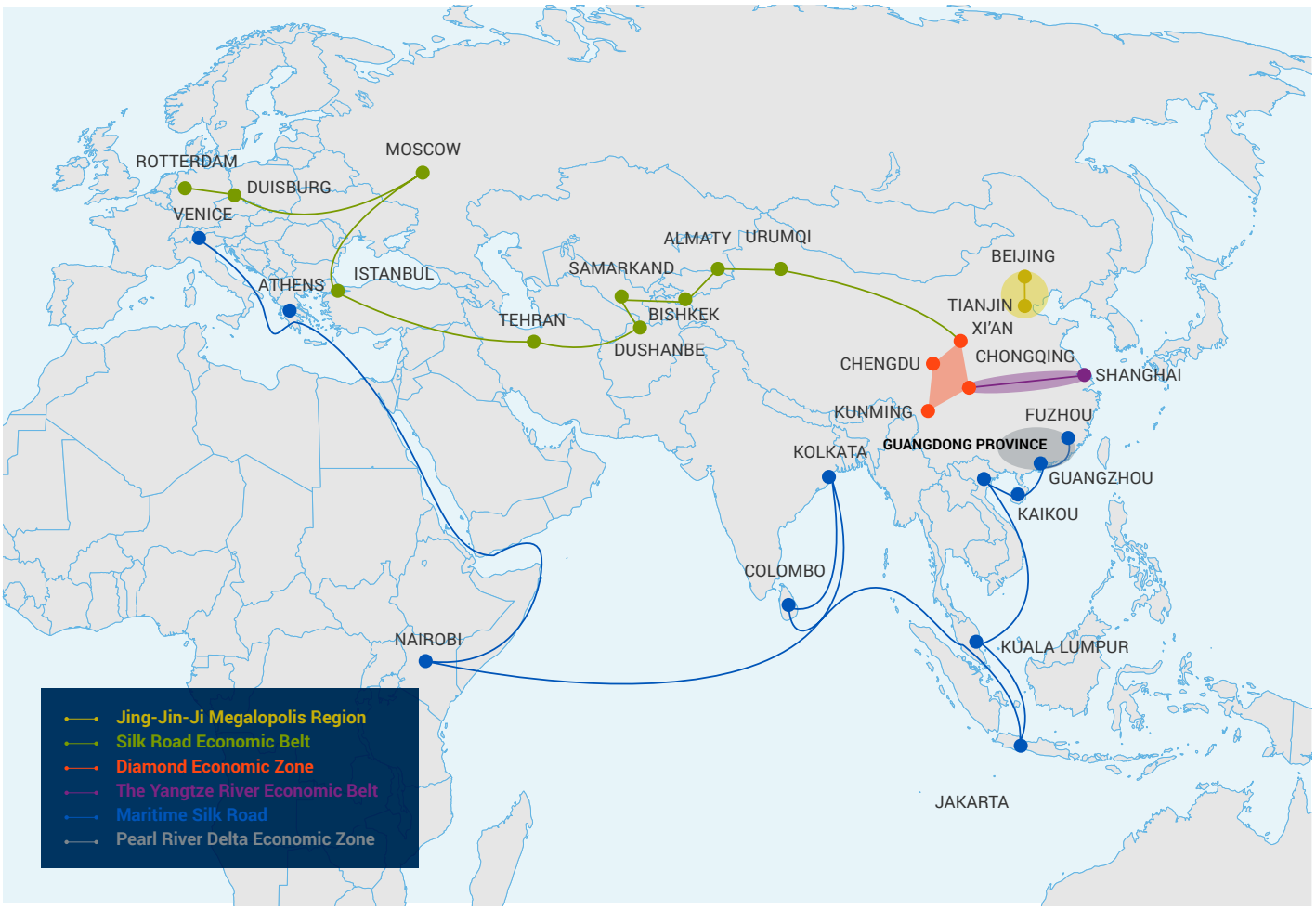
The Jing-Jin-Ji Metropolis Region is another regional cluster, in which Beijing and Tianjin are taking the lead in bolstering the growth of less-developed Hebei Province. The local idiom "If you climb the heights separating Hebei Province and Beijing, you can triple your wage" illustrates why people have flocked to Beijing, creating congestion, pollution, and water and energy shortages that have plagued China's capital. Based on the Beijing City Master Plan (2004-2020), the urban spatial structure will have two axes, running north-south and east-west across the city, with the western and eastern sides having multiple sub-centers. Eleven new towns will be built. The polycentric urban structure will allow Beijing to shift some manufacturing industries and administrative functions to neighboring cities to mitigate the above issues. In particular, Shunyi New Town will become a manufacturing base; Tongzhou New Town is designated as a service and sub-administrative center; and Yizhuang is to be a high-tech hub.[16] In addition to the urban decentralization of Beijing, the plan also includes an ecological belt in the west to make the city greener. Since 2013, Beijing has invested more than RMB 250 billion on projects for clean energy, water improvement, garbage disposal, and green engineering.[17] Hebei Province was known for its low-skilled steel and metallurgy industries. The decentralization of Beijing is also helping to upgrade and transform Hebei's industries

The "Go West" policy of the late 1990s helped spawn the recent emergence of the Diamond Economic Zone, an inland block of which Chongqing, Xi'an, Chengdu, and Kunming form the corners. The recent OBOR initiative plays a key role in bolstering the development of this zone. The concentration of universities in Chongqing and Chengdu can provide talented professionals for innovation. Local governments provide incentives such as rent subsidies to encourage startups. These two cities have lower rent and labor costs compared with other major cities such as Beijing. They may also drive the future development of their surrounding regions. Compared with Chongqing and Chengdu, Xi'an and Kunming are still at the early stage of the growth process, but all are important strategic points in the OBOR initiative. Xi'an was designated as the starting point of the OBOR initiative. It is now China's largest inland "port," with the Xi'an International Trade and Logistics Park and Xi'an Comprehensive Bonded Zone. It has a freight rail connection to Central Asia and Europe. Kunming is another emerging gateway, to Southeast Asia.

Another regional cluster is emerging in Guizhou Province. Despite its excellent weather and beautiful scenery, Guizhou has been one of the poorest and most cut-off provinces in China. Recently, though, it has attracted many businesses and enjoyed dramatic economic growth. From 2011 through 2016, its rate of economic growth has been among the top three in China.[18] The rise of Guizhou has largely to do with the dramatic improvement in its transportation networks. In addition to the Guiyang Longdongbao International Airport, the completion of a number of highways in recent years also improved the transportation infrastructure. More importantly, the opening of high-speed railways to Guangzhou in 2014 and to Beijing and Shanghai in 2015 has shortened the journey time to those major cities and helped connect Guizhou better to the Pearl River Delta Economic Zone and the Yangtze River Economic Belt. The high-speed railroad from Guiyang to Kunming opened at the end of 2016. Since Kunming is the gateway to many Southeast Asian countries under the OBOR initiative, this line also helps Guizhou leverage the initiative. Another key contributing factor to Guizhou's recent economic success is its industrial development strategy. It chose big data as the core industry to drive its economic growth. Guizhou is the nation's first pilot zone for big data[19] and has established several industrial parks such as the Guian Electronic Information Industry (Big Data) Incubation Park. It has recently become the major center for big data in south China. Many multinational corporations, such as Alibaba, Foxconn, Hewlett-Packard, Microsoft, and Tencent, have put down roots in this emerging big data hub. The provincial government of Guizhou has recently been promoting its tourism industry by leveraging its natural and cultural assets (such as Huangguoshu Waterfall) and rich multi-cultural heritage (for example, cultural experience by visiting minority groups such as the Miao). These assets make this province an attractive tourist destination. It was recommended by the *New York Times* in its 2016 must-go list.[20]

Figure 3 Shows the routes involved in the OBOR initiative, and China's urban and regional clusters.

Figure 3. "One Belt, One Road" and regional clusters



Source: Perry et al., (2016). Best-Performing Cities China 2016. Santa Monica: Milken Institute, p. 9., This image incorporates the Chinese Communist Party's original proposal for the "One Belt, One Road" initiative and does not reflect the status of the governments of European Union and India participation.

THE EVOLUTION AND INFLUENCE OF THE "ONE BELT, ONE ROAD" (OBOR) INITIATIVE

In addition to spurring urbanization and the development of regional clusters, the "One Belt, One Road" (OBOR) initiative also plays a key role in both urban and regional development and in reigniting China's overall economic growth. This initiative was announced by China's President Xi Jinping in September 2013. It will expand overland freight routes (the "belt") and ocean shipping routes (the "road"), increasing the capacity of regional supply chains.[21] The OBOR initiative is not only a renaissance of China's ancient "Silk Road" trading routes, but also a multinational trade and economic collaboration effort. Through infrastructure investment, China is investing in countries involved with the initiative to improve their infrastructure, while China expands business and trade opportunities and secures alternative routes for importing energy.

One of the key features of the OBOR initiative is investment in infrastructure such as highways, railway networks, and ports. The construction of these projects helps reduce transport time and costs. For instance, in Kenya, a Chinese-built high-speed railway known as the Madaraka Express connecting Mombasa to the capital Nairobi was up and running by May 2017. This is a $3.8 billion infrastructure project built by the China Road and Bridge Corporation (CRBC) and 90 percent of the financing came from the Export-Import Bank of China.[22] This railway has replaced the old network and made transportation cheaper and quicker. It is planned to extend this line to other East African countries.

On May 14 and 15, 2017, the "Belt and Road Forum for International Cooperation" was held in Beijing. It was attended by representatives of more than 130 countries, including presidents or senior government officials and political leaders from 29 countries. China announced that the Silk Road Fund will add RMB 100 billion to the OBOR initiative. In addition, China Development Bank and the Export-Import Bank of China will provide RMB 250 billion and RMB 130 billion in loans to fund projects. The OBOR initiative will play a critical role in reigniting China's economy. Since the launch of this initiative, many cities have benefited. It will remain a key driver for China's future urban and regional development.

In a nutshell, the development of sub-centers around highly-developed cities helps expedite the urbanization process of neighboring, less-developed cities. This also helps strengthen existing urban clusters including the Jing-Jin-Ji Metropolis Region, the Diamond Economic Zone, the Yangtze River Economic Belt, and the Pearl River Delta Economic Zone. The movement of Chinese cities toward a more eco- and environment-friendly paradigm for urban and regional development will also facilitate economic growth. The development of less-urbanized areas fueled by the OBOR initiative will help China shift from a domestic investment-led economy to a consumption- and service-driven one.

METHODOLOGY

The 2017 Milken Institute Best-Performing Cities China index divides 260 Chinese cities into two groups, one for large cities and one for small- and medium-sized cities. The large-cities group comprises 34 first- and second-tier cities, while the latter is made up of 226 third-tier cities. The two groups are ranked separately based on economic performance, with an emphasis on growth measurements. The index measures growth in jobs, wages, per-capita gross regional product (GRP), and foreign direct investment (FDI), while also measuring the proportion of FDI within GRP and the concentration of high value-added industries. Growth in jobs, wages, and per-capita GRP is evaluated over one-year (2014-2015) and five-year (2010-2015) periods. The one-year period captures the most recent economic dynamics, while the five-year period adjusts for extreme variation in the recent business cycle. FDI growth is measured over a three-year (2012-2015) period and FDI is also evaluated by share of GRP in 2015. The concentration of high value-added industries is quantified using a location quotient (LQ) for employment in those industries in 2015. High value-added industry comprises the sectors of manufacturing; transportation, storage and postal services; information transmission, computer services and software; financial intermediation; real estate; and leasing and business services. This group of sectors is typically considered major catalysts for growth in a local economy. Recent theoretical and empirical work suggests that both FDI and high value-added industries play critical roles in bolstering China's economy, so these indicators are more heavily weighted in this index. Table 2 lists the nine indicators used to construct the index and their respective weightings.

Table 2. Components of the Best-performing cities China index

INDICATOR	WEIGHTING
1-year job growth (2014-2015)	0.100
5-year job growth (2010-2015)	0.100
1-year wage growth (2014-2015)	0.100
5-year wage growth (2010-2015)	0.100
1-year GRP per-capita growth (2014-2015)	0.100
5-year GRP per-capita growth (2010-2015)	0.100
3-year FDI growth (2012-2015)	0.125
FDI/GRP (2015)	0.125
LQ for high value-added industry employment (2015)	0.150

Undocumented modifications in counting methods, reclassifications based on policy changes, and other changes can cause discrepancies or abnormalities in the data recorded for a city. Consequently, some data adjustments were made to construct a more consistent index and to reflect current urban development status and economic trends more closely. To minimize volatility in ranking results, the Milken Institute employs a ranking method (based on weighted z-scores) that differs from the method used for our Best-Performing Cities series for the United States and Asia. The alternate method used here provides a ranking that better captures the economic development of Chinese cities. For more details regarding data and methodology, please see the Appendix.

REPORT FINDINGS

FIRST- AND SECOND-TIER CITIES

#1
CHENGDU, *SICHUAN*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**1st**	**2nd**	**3-Year FDI Growth (2012-2015)**	**29th**
Wage Growth	**2nd**	**10th**	**FDI/GRP (2015)**	**6th**
GRP Per-Capita Growth	**17th**	**21st**	**LQ for High Value-Added Industry (2015)**	**24th**

Chengdu, a city with a registered population of 12.3 million in 2015[23], ranks first once again in 2017, rising from fifth last year. This center of dynamism ranks first in one-year job growth and second in both five-year job growth and one-year wage growth. The impact of both long-term policies and initiatives from the central government are clear in these rankings. As the OBOR initiative takes shape, the western regions of China can expect further dynamic growth. Chengdu has been a focal point of the overall greater western China story, and will continue to play a key role in the future. As manufacturing moves westward, economic development will refocus investment, benefitting the massive high-end and high-value manufacturers in the city. The most western cities in the Western Triangle Development Zone will gain capacity to move goods produced in the city into the south through Kunming and other cities. The expansion of the economic zone into the Diamond Economic Zone positions Chengdu within a larger strategy to integrate China's manufacturing supply chain in the greater western region.

Although the city is showing some softening in FDI growth in 2017, this must be seen in the context of the large FDI concentration that already exists in the city. In FDI to GRP ratio, Chengdu is ranked sixth. The city has gained in international importance due to its relatively lower costs and the government's policy commitment to the region. The high concentration of FDI reflects the fact that Chengdu has been growing its well-diversified manufacturing base and related infrastructure for over a decade. Investments by international interests have enabled migration and employment in manufacturing in the west of the country. With the coastal cities continuing to experience increases in labor and space costs, Chengdu has been able to draw in the manufacturing operations of large tech companies. It seeks to continue to attract skilled manufacturing through companies like Volvo, to help consolidate its advanced manufacturing base.[24] The investment in transportation infrastructure both within the city and connecting it externally will facilitate the export of products from western China into the global supply chain. The increased public transit spending coincides with attempts to attract high-tech startups and to spur entrepreneurial activity in the city.

Chengdu has gained the nickname "iPad City," but its manufacturing industries go far beyond consumer electronics. The increase in jobs highlights its efforts to draw people from the surrounding areas and coastal regions within the Chinese development strategy. Intel has increased operational investments here, and the Commercial Aircraft Corporation of China, Ltd. (COMAC), China's first passenger jet company, has increased the number of higher-wage jobs in the area.[25] As Chengdu increases its regional presence as a major production center, the investment in transportation infrastructure from the OBOR will be increasingly important to keep Chinese manufacturing competitive. The high-tech industrial development zone continues to draw investment into the city. Chengdu has also seen infrastructure investment in the form of a subway system, under directives from the National Development and Reform Commission.[26] As the OBOR initiative connects not only regions of China, but also offers international links, Chengdu will continue to be a key manufacturing hub for the world. The city is well placed for easy integration into a greater supply chain. The international information technology companies that dominate the city need to supply a worldwide consumer market, and have laid the groundwork for a large-scale transportation hub. The two international airports and the Diamond Economic Zone railway lines will enable Chengdu to have an outward-looking economy as the western region develops beyond manufacturing.

Skilled manufacturing jobs have increased and policies are in place to incentivize research and development (R&D) activity through the use of economic zones. These zones are intended to create spaces close to venture capital and other resources for Chinese entrepreneurs to operate in. Through international partnerships, Chengdu is looking to step up R&D activities, using the numerous local universities as a platform.[27] The creation of new technologies can be spurred by these partnerships, which involve transfer of knowledge and expertise. Job creation and economic evolution in Chengdu are part of an overall strategy to create a western super-cluster.

#2
CHONGQING

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**4th**	**1st**	**3-Year FDI Growth (2012-2015)**	**28th**
Wage Growth	**18th**	**8th**	**FDI/GRP (2015)**	**8th**
GRP Per-Capita Growth	**5th**	**3rd**	**LQ for High Value-Added Industry (2015)**	**28th**

In 2015, Chongqing had a registered population of 33.7 million.[28] It jumps six ranks to number two, up from eighth in our previous ranking. As the most westerly first-tier city, Chongqing is key to China's continued economic development. The highest ranking tier-one city (Chengdu being tier-two), it ranks highly in job growth and GRP per capita, with sustained development over the last five years. The infrastructure linkages to all regions of China have driven a great deal of its growth. The rapid build-up of transportation networks make this city ever more important in China's overall development strategy, by linking the Yangtze River Economic Belt to the Diamond Economic Zone. This ensures that manufacturing that has moved westward is still able to link goods created by the river-belt economics to the global supply chain. This has redefined just how important the western region has become, and the expansion of the Triangle Economic Zone cements Chongqing's strategic role. Beyond China, Chongqing will be the transportation hub for links to Europe, running through Russia.[29] With labor in China facing increasing competition, the western region has become crucial to retention of the sectors that have helped China industrialize. With Chongqing plugged into trade with regions to the west and to China's coastal regions, the OBOR initiative can leverage its pivotal position in logistics for future international and domestic trade.

Clearly, the city will have dual roles in the greater western-front development. It is already a commercial, financial, and production center, but it will also play a bigger role as a transportation hub, spreading economic opportunity westward. The vision of populating the western regions of China can be studied by tracking what industries are moving out west. The manufacturing base that has moved further westward over the last decade will expand economic opportunity by creating the same kind of jobs that have underpinned the emergence of China's middle class. As the economy develops, coastal cities overall are getting more expensive and many have developed highly skilled service sector jobs. While serving as a transit hub for getting products to the coast and continuing to create its own service-oriented industries, Chongqing will play a major role in anchoring a western super cluster.

With innovation now a central focus of economic development in China, the city continues to intensify linkages among enterprises and its major universities for international R&D collaboration and projects. Researchers from Australia, Chongqing, and several UK institutions are partnering, for example, to develop better hepatitis diagnosis methods.[30] Outside of the academic setting, Chinese car companies are partnering with U.S.-based tech companies to speed up integration of artificial intelligence (AI) systems. China has been using international partnerships to increase its exposure to R&D activities. The push to partner internationally can help Chinese enterprises gain expertise in the latest advances. Chongqing is also the site of the third major development project originating in Singapore. In the last two decades, Singapore's government and state enterprises have invested in China and worked with Chinese regional governments to create some of the most notable economic clusters in cities like Suzhou.

The deepening of the overall economic profile of the Chongqing manufacturing sector to include consumer products recalls the way many coastal cities achieved faster growth by connecting to international markets. The further development of the city's industrial base is based on the western development strategy, which saw Chongqing become the focal point of the "Open Up to the West Program." The city is now into its tenth year in this role. The OBOR initiative is designed to connect China to the outside world, and also to further integrate economic development policies already in place. The expansion of the triangle zone into the Diamond Economic Zone is a prime example. As the manufacturing base grows in the west, there is a need to maintain China's supply chain capacity. After ten years of development of new supply chains, a larger role for the western provinces is one policy that will help keep manufacturing jobs in China.

#3
GUIYANG, *GUIZHOU*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**13th**	**13th**	**3-Year FDI Growth (2012-2015)**	**4th**
Wage Growth	**26th**	**6th**	**FDI/GRP (2015)**	**22nd**
GRP Per-Capita Growth	**1st**	**1st**	**LQ for High Value-Added Industry (2015)**	**29th**

With a registered population of 3.9 million in 2015,[31] Guiyang drops two ranks from first to third in this year's BPC ranking. The city continues to perform well, coming in at No. 1 in both one- and five-year GRP growth per capita. As with much of the western development of China, connecting the city to other regional hubs gives Guiyang the ability to integrate itself into the economic supply chain currently concentrated on the coastal regions. This infrastructure development was helped by the "one-hour economic circle" concept, which refers to the slashing of local intercity journey times by high-speed rail, helping create a reliable transportation network for Guiyang as growth continues. Ongoing investment through the OBOR initiative will make this corridor important in keeping investment in China competitive as the western regions continue to act as focal points in the newest wave of development. Along one of four routes that connect the top half of the Diamond Economic Zone, this city is also well positioned to connect the southern coast of China to the growing manufacturing base out west. The domestic path can be seen in the completion of a railway in 2017, which will ultimately connect the city with Shenzhen.[32] This type of development is a priority for the city, which just became a member of the World Trade Center Association.

As its development continues, construction of data centers gives Guiyang a new source of employment. The leveraging of cheap, abundant land gives the city an edge in drawing in data centers, which will help growth by providing jobs in the high-tech sector. The interest in the city from both international and domestic technology companies should continue to dispel the image of just another "ghost city," as economic laggards are called in Chinese. The latest international company setting up shop in Guiyang is NIIT, which has opened its largest training facility there.[33] By drawing in cutting-edge high-tech jobs, Guiyang can position itself as a "New City," leapfrogging many of the problems that larger cities have had to deal with because of economic development. It has been selected by the central government as an eco-city. The plan is for Guiyang to be a financial and data center, with a heavy emphasis on green energy sources and generation. Guiyang is leveraging EU investments to create platforms for R&D to drive a new wave of innovation. The eco-city initiative is aimed not only at energy production and utilities, but also, in a more literal sense, at planning development using more parks and open spaces to allay the current level of environmental concerns that exists in major cities.

For Guiyang to develop further, generating talent and skilled workforces may be a challenge. In light of this, the city has instituted a 17-school program that focuses on vocational training. These schools are directly impacting the workforce through onsite training programs. As the manufacturing base becomes more diverse and demand for labor follows, these programs will provide workers with direct experience. The school grouping is part of the Qingzhen Vocational Education City and has the capacity to further add schools.[34] The development of western China makes the creation of human capital more important than ever. The movement of the manufacturing base westward, and the reliance of the overall Chinese economy on traditional sectors, demands the development of a correspondingly adapted workforce. Whether or not the plan to build a "new mega city on a high plateau" succeeds will hinge on the matching of jobs opportunities to the workforce and the creation of business enterprises. The traditional industries of Guiyang will be a part of the story moving forward, but guided by directives from central government, the city will look to big data infrastructure services for future development. This, along with a push to create greener cities within the urbanization drive, may be a pilot for future development in China.

#4
SHENZHEN, *GUANGDONG*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**11th**	**8th**	**3-Year FDI Growth (2012-2015)**	**22nd**
Wage Growth	**14th**	**3rd**	**FDI/GRP (2015)**	**19th**
GRP Per-Capita Growth	**21st**	**26th**	**LQ for High Value-Added Industry (2015)**	**1st**

Shenzhen had a registered population of 3.5 million in 2015. [35] It maintains fourth place in this year's BPC ranking. What makes this city stand out is its No. 1 status in concentration of high value-added industries. The city shows strength in five-year job and wage indicators, ranking eighth and third, respectively. Shenzhen is one of the models that the Chinese government is using for many other "New Areas," promoting high-tech based economic development and an industrial build-up. As the first city to become a Special Economic Zone, Shenzhen forms one of the case studies in the great Chinese success story. There have been several iterations that can describe the economic development of Shenzhen but also the Chinese economy, and what the overall vision for China is. The city has transformed from a manufacturing center that helped propel the Chinese economy into the global force it is today. Shenzhen was one the first cities on the mainland to transition from a focus of manufacturing to a more service-based and innovation-driven economy. This economy developed its own growth engines, and does not require heavy investment and commitments by the central government for its impetus. The Pearl River Delta is being developed to rival Silicon Valley, even to the point of linking up Shenzhen, Hong Kong, and Macau.

The city can still attract major international tech companies like Apple, which has announced new investment in facilities in Shenzhen.[36] A major part of the city's success in developing itself into a more service-based economy is due to economic zones like the Shenzhen High-tech Industrial Development Zone, which serves as a base for some of China's largest tech companies, including Huawei and ZTE. The special industrial zones have grown in number from one to nine since the 1980s, when this city hosted the first experiments with special economic zones in China. These companies and others like them have created the platform on which Shenzhen can move into innovation as driver of economic development. Shenzhen has joined Shanghai and Beijing as RMB 2 trillion metro-economies.[37] The tech industry in Shenzhen is looking to foster homegrown innovation, a natural initiative given that such a large economy is spending over 4 percent of GRP on R&D.[38] Billions of dollars have been invested in R&D facilities of both domestic and international firms, and has access to funding sources. As home to the second mainland Chinese stock exchange, it also has the financial expertise needed by the next wave of entrepreneurs.[39]

This cluster of high-tech companies is a success story for the private sector in China. There are few cities in China that do not need the central government to invest in and prioritize policies for growth. This is one of the first truly outward-facing cities in China. The high-tech cluster that has been created is the product of lavish financing from Hong Kong and Taiwan as well as China's own financial entities. Shenzhen is an outward-looking, adaptive city, and its homegrown products like WeChat embody how innovation has occurred in China. The development of this domestic social media platform that incorporates marketplaces is a success that has stolen a march on many western tech giants. Though it might not be the groundbreaking disruptive technology associated with top tech companies, it does showcase a capacity to innovate within China to meet domestic demand.

With the recent addition of rail links to places as far away as Minsk, Belarus, Shenzhen has continued to integrate infrastructure projects that will help the city to maintain competitiveness.[40] Benefiting not only from the success of Hong Kong and the surrounding development areas, its location places it on both land and sea routes in the OBOR initiative. Shenzhen grew all of the high value-added industries employment except manufacturing over the last year. The number of high value-added jobs has risen most in leasing and business services, real estate, and financial intermediation. This is not to say that there are no opportunities elsewhere. The Ministry of Finance and National Development and Reform Commission has launched a $1.5 billion fund to finance new economy businesses in sectors like clean energy, bio-tech, and fin-tech.[41] The promotion of the new economy has drawn Shenzhen and Hong Kong together in the guise of the Hong Kong-Shenzhen Innovation and Technology Park, which will benefit businesses from both municipalities.

#5
NANJING, *JIANGSU*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**34th**	**9th**	**3-Year FDI Growth (2012-2015)**	**30th**
Wage Growth	**3rd**	**4th**	**FDI/GRP (2015)**	**21st**
GRP Per-Capita Growth	**3rd**	**4th**	**LQ for High Value-Added Industry (2015)**	**11th**

A city with a registered population of 6.5 million in 2015,[42] Nanjing reenters the top 10 at fifth place in this year's BPC China ranking. Bouncing back from 17th last year, it gets into the top five in both one- and five-year categories for wage and GRP per-capita growth. The favorable geography of the city positions Nanjing firmly as a logistics hub for the OBOR initiative and the Yangtze River Economic Belt using the Yangtze to connect western China to the coastal ports. Investment through the OBOR initiative will total $1.18 billion. It will enable ocean freighters to travel up the river. This project will open up another 280 kilometers of trade route from Nanjing to Taicang. [43] Combined with the OBOR initiative, this connects China's growing base of western cities to the coast. This development project brings the Yangtze River into the modern era for current industrial shipping. The OBOR initiative will link the manufacturing in the west to one of the largest service clusters in the world.

Manufacturing is still a part of the overall landscape of the local economy and formed the basis for much of Nanjing's initial development. The largest industries still have a presence, with medical, information technology, electronics, electric equipment, and heavy manufacturing taking the lead. These changes have weaned the city away from primary manufacturing and turned it into a developed service based economy. [44] The development of this region has made the city part of a very large innovation cluster. Nanjing hosts many R&D operations of large companies that have benefited from the region's concentration of talent and resources. Ford is investing $1.88 billion in the city in R&D operations, an expansion of the 2007 investment by Ford Nanjing Research & Engineering Center.[45] International firms are not alone in investing heavily in Nanjing. Future Mobility will create a $1.7 billion manufacturing facility to produce China-made electric cars. Active in a sector identified as a priority for economic development, Chinese startup NextEV will be building a $465 million electric motor facility. The rise of electric cars is giving the auto industry in China a new platform for innovation in green tech. The next-largest sectors are transportation and information technology, which give this city an employment base for innovation in sectors that continue to integrate the latest technology into products. The constellation of companies focused at the high end of the technological spectrum will position this city as a tech center at the heart of China's transportation network. The state-run enterprise Tsinghua is set to invest $30 billion in Nanjing for manufacture of microchips.[46] This facility will be joined by an investment by the chipmaker Taiwan Semiconductor Manufacturing Co. The city is investing further in R&D, building up research facilities in proximity to the local universes to become a high-tech research center.[47]

The promotion of the next wave of innovation is a policy goal for the central government under the "New Area" Initiative. The "New Area" will be the third development zone focused on the high-tech sector. The scale of R&D made the establishment of the latest development area an easy fit. Overall, the region has been a major innovation hub for the nation. The spillover from the triangle formed by Shanghai, Suzhou, and Nanjing continues to shape Nanjing's own major R&D infrastructure. Some of the largest homegrown technology companies in China, such as ZTE, Huawei, and Lenovo, have R&D operations here. Like other cities in the region, Nanjing has developed beyond manufacturing and is now a service-oriented economy specializing in R&D, design, and technical professional services. Location as well as lower costs have enabled the development of the broader Yangtze Delta region into an area that attracts more R&D operations.

#6
SHANGHAI

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**22nd**	**6th**	**3-Year FDI Growth (2012-2015)**	**23rd**
Wage Growth	**15th**	**2nd**	**FDI/GRP (2015)**	**3rd**
GRP Per-Capita Growth	**12th**	**31st**	**LQ for High Value-Added Industry (2015)**	**4th**

Although the registered population (household basis) in 2015 was 14.4 million[48], it is estimated that there are 24 million people living in Shanghai. This city has dropped from second to sixth place in this year's ranking. However, by various indicators Shanghai is still well-positioned, ranking third in concentration of high-valued sectors, fourth in foreign investment as a proportion of GRP, second in five-year wage growth, and finally sixth in five-year jobs growth. This city is one of the largest economic drivers of overall development in China. Its sheer size, and spillover effect as it radiates outward, have influenced the growth of surrounding areas. As the largest regional economy in China, Shanghai is also home to the largest stock exchange in mainland China and is the nation's financial center. The People's Bank of China has a second headquarters here. In 2013, Shanghai got its first Free Trade Zone, which has given the city a leading role in the supply-side reforms currently being emphasized by the Chinese leadership. In 2015, the zone was expanded to include three more business centers in the city: Jinqiao Export Processing Zone, Zhangjiang Hi-Tech Park, and Lujiazui Financial Area.[49] Though growth may not be on the same scale as in the past, Shanghai remains economically buoyant enough to generate spillover influencing the broader region.

Besides being a financial powerhouse, Shanghai has developed a high-tech sector and R&D organizations. The prosperous high-tech sector is often aided by the 200 or so venture capital funds in the city. Supported by this access to capital, the Zhangjiang Hi-Tech Park has been operating for over 20 years and the city will see the addition of one of the "New Areas" that are being set up to be centers of innovation. The tech park has opened a branch in Boston, MA. These two cities have large presences throughout the world in innovation, and the expansion of Chinese innovation is now making itself felt. The R&D presence in Shanghai is further bolstered by the major universities in the city. This year Apple has announced a $506 million investment in two R&D facilities, one of which will be in Shanghai.[50] To try and maintain talent levels, Shanghai in 2015 unveiled 22 measures that make it easier for businesses to hire foreign employees. The changes affected taxes and employer criteria for visas. This upholds the talent inflow into the city, which will help Shanghai compete internationally. An incentive for these changes is to give Shanghai the ability to continue to grow without relying as heavily on the support of the central government. This allows resources to be used elsewhere.

As a diversified economy, Shanghai is also home to the nation's largest state-run steel producer, Baosteel, and Fosun, a large private steel company. COMAC and Russia's United Aircraft Corporation launched a joint partnership in May 2017 to build passenger planes, with the assembly line in the Shanghai.[51] Though Shanghai has developed a high-end service sector, traditional growth industries still play a large part in the economic activity of the city. The advancement of Shanghai has created a highly diverse and robust economic powerhouse.

A major gateway city into China, Shanghai has been for many years a major destination for tourism and business travel for both international and domestic markets. As a major port and transportation hub, this megacity will continue to play a significant role in the economic future of China. The Yangtze River Delta Economic Zone has been and will be an economic driver for China. The area has vast infrastructure for handling both imports and exports. The Yangtze River has played a part in the historical development of China, and the OBOR initiative seeks to maintain this important trade route. The Yangtze River Economic Belt infrastructure projects will expand the capacity of river shipping routes. The increased level of production in the western regions of China means that products that were once made in coastal regions will need to be made in port cities. As the world's busiest port, Shanghai has infrastructure in place to handle the output. [52] In order to maintain the flow from the growing manufacturing centers in the Diamond Economic Zone and to ensure future capacity the expansion of trade routes is necessary. By updating transportation infrastructure, the city can offset some of the costs of goods transportation, while using existing hubs that will not damage current supply chains.

#7
ZHENGZHOU, *HENAN*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**10th**	**7th**	**3-Year FDI Growth (2012-2015)**	**25th**
Wage Growth	**4th**	**5th**	**FDI/GRP (2015)**	**15th**
GRP Per-Capita Growth	**20th**	**20th**	**LQ for High Value-Added Industry (2015)**	**10th**

In 2015, Zhengzhou had a registered population of 8.1 million.[53] It enters the top 10 for the first time in 2017, rising nine places from 16th last year. Zhengzhou ranks seventh in five-year job growth and fifth in five-year wage growth, as well as fourth in one-year wage growth. The improved performance comes on the heels of the central government's economic moves to nudge growth toward the central and western regions of the nation. Accordingly, major manufacturing operations have moved to this city far inland to remain competitive as the coastal regions become increasingly expensive. Centrally located in Henan Province, of which it is the capital, Zhengzhou is a logistics hub because of the intersection of north-south and east-west railway lines connecting Beijing, Tianjin, Xi'an, Qingdao, and Shanghai. Internationally, Zhengzhou has a rail link with Hamburg and sits on trade routes to Belarus, Russia, and Kazakhstan. The city has made efforts to become more outward-looking with the building of the Zhengzhou International Airport, including a section dedicated to business logistics.[54] If transportation capacity increases, the city is well positioned to compete with new trade routes.

The OBOR initiative will help this city in coming years because its manufacturing base comprises state-run enterprises like China Railway Engineering Equipment Group.[55] Along with consumer electronics, the city has a large auto-making presence, both foreign and domestic.[56] This city gained the nickname "iPhone City" after Apple's supplier Foxconn moved part of its manufacturing operations here. In Zhengzhou, textiles, food and beverage processing, and fertilizer and cigarette manufacturing make up the major industries. Major companies like Synear Group supply frozen food to the domestic market.[57] Transportation manufacturing in the city has drawn in investment in industries that have been labeled as priorities by the central government. Luxembourg airline Cargolux has a joint venture with the provincial government to operate a fleet of planes to open up the city to transpacific and domestic trade routes.[58] This year Amazon has launched direct flights to Zhengzhou, to move products between China and the U.S.[59]

Meanwhile, the First Affiliated Hospital of Zhengzhou University will begin stem-cell clinical trials for the treatment of Parkinson's disease and macular degeneration.[60] The trials are a part of central government efforts to raise the profile of R&D activity in China. Three state-level development zones support established major and still-emerging industries here.[61] The industries that these zones cater to are science and technology, transportation, and manufacturing. The city will also be home to one of the "New Areas" dedicated to bolstering the innovation platform in China. One of the major elements of this development will be the universities that have been built not only to draw people into the city but also to supply talent for companies looking to set up operations in Zhengzhou. The largest iPhone factory in the world and a cluster of universities have changed the image of a city once labeled a "ghost city." It is now gearing up to attract the next wave of migration from coastal regions.

#8
KUNMING, *YUNNAN*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**2nd**	**19th**	**3-Year FDI Growth (2012-2015)**	**15th**
Wage Growth	**1st**	**13th**	**FDI/GRP (2015)**	**12th**
GRP Per-Capita Growth	**16th**	**5th**	**LQ for High Value-Added Industry (2015)**	**30th**

Kunming is a city with a registered population of 5.6 million in 2015.[62] Entering the top 10 for the first time, it ranks eighth. As the capital of Yunnan, Kunming comes first in one-year wage growth, second in one-year job growth, and fifth in five-year GRP per-capita growth. Like two other capitals of southwestern provinces (Guiyang and Chengdu), Kunming's growth is very much tied up with the OBOR initiative connecting China to the rest of Southeast Asia and West Asia. It has two development zones designed to promote high value-added industries. One is a provincial-level area. The second has drawn more interest from a varied set of major foreign investors like Microsoft and PepsiCo. As a capital city, Kunming has no distinct traditional growth drivers; this positions the city better to develop industries in the service sector.[63] This makes it rather a unique case in China. Despite the city's long and unique tradition in plant-based pharmacological research, Kunming has not been able to capitalize on this advantage. There are signs that the city is making progress in developing this research footprint. This year, the Kunming Institute of Botany provided evidence of a fungus that can break down plastics.[64]

As a logistics center, the importance of this hub is due not only to the presence of larger economic zones but also geographical factors. Kunming is located in southwestern China and in a corridor for land-based trade routes to Southeast Asia. The city has major transportation infrastructure links to three nations: Myanmar, Laos, and Vietnam. As the bottom corner of the Diamond Economic Zone, it gives the developing western manufacturing cities a corridor to Southeast Asia. This city is a gateway for trade between China and Pakistan.[65] A pipeline has begun operations bringing crude oil across Myanmar to Kunming, part of the OBOR initiative.[66] This city is 13 hours from Beijing by high-speed rail. Kunming is still in the development phase and needs to be integrated into the modern Chinese economic system, which is a goal of the OBOR initiative. As this city is the gateway to southern Asia, the need to provide missing links is being addressed by a high-speed railway line through Laos and Thailand to Singapore.[67] Connecting this city to not only domestic markets but also the rest of Asia is an important step for the OBOR initiative.

For Kunming, the OBOR initiative connects the Pan Asia High-Speed Network, a railway through Southeast Asia, to more of the domestic Chinese market. China has been trying to construct this network for a long time, but progress has hit road-blocks. Investment in connecting Kunming to the rest of China deepens the incentive for the rest of the participating nations in the OBOR initiative because of the access to more expansive trade routes. The Diamond Economic Zone will become a larger manufacturing base. Expanding the southwestern half of the zone links southern Asia into a larger supply chain. Eventually goods from Southeast Asia will be able to move through the city to Beijing, Shanghai, and Shenzhen.

#9
NANCHANG, *JIANGXI*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**7th**	**5th**	**3-Year FDI Growth (2012-2015)**	**27th**
Wage Growth	**6th**	**7th**	**FDI/GRP (2015)**	**9th**
GRP Per-Capita Growth	**8th**	**9th**	**LQ for High Value-Added Industry (2015)**	**31st**

Nanchang had a registered population of 5.2 million in 2015.[68] It drops two places from our previous ranking to ninth. This city comes seventh and fifth in one- and five-year job growth, and sixth and seventh in one- and five-year wage growth, respectively. It ranks eighth and ninth in one and five-year GRP per-capita growth and ninth in its FDI to GRP ratio. As with other provincial capitals in China, Nanchang is also mandated to develop a "New Area." The aim with many of these locations around the country is to create regional clusters focusing on high-valued manufacturing, services, and innovation.

The city has a large auto-making presence (large and small vehicles), and defense industry.[69] A growing offshoot of the defense industry is the passenger aircraft sector that China has been investing in. COMAC is manufacturing aircraft bodies in the city. Complementing the growing passenger aircraft industry, Jiangxi Airlines is based in the city. It is also part of the infrastructure development linking China with Russia through the Xiamen-Moscow rail cargo route.[70] These investments dovetail with the logistics development park in Nanchang.[71]

This type of diversification will give the city a more developed range of higher-wage manufacturing jobs, which can help promote higher wage income and growth. Nanchang has invested in developing a local high value-added industries focused on information technology and life sciences. There are two provincial level economic development zones, focused on the engineering and information technology sectors.[72] These parks have gathered interest from hotel developers like InterContinental Hotels Group, which is set to build a large luxury development near the park.[73] The Nanchang tech park is focused on e-commerce and virtual reality development.[74] The opening of Wanda City, recently sold to Sunac, has positioned this city to become a domestic tourist destination. Investment in tourism continues, with Ground International set to launch a series of tourism-related services.[75] The new tourism industry is looking into different sectors of the service industry. Domestic tourism is a way to encourage the emergence of a consumer culture driven by the middle class. The presence of tourist attractions and natural assets can help the city, but for this to work, environmental protection needs to be a priority.

#10
QINGDAO, *SHANDONG*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**16th**	**26th**	**3-Year FDI Growth (2012-2015)**	**13th**
Wage Growth	**12th**	**16th**	**FDI/GRP (2015)**	**4th**
GRP Per-Capita Growth	**15th**	**18th**	**LQ for High Value-Added Industry (2015)**	**3rd**

In 2015, Qingdao had a registered population of 7.8 million.[76] It enters the top 10 for the first time, jumping two positions from twelfth. This city has consistently improved its ranking over the last several years. Qingdao ranks third in concentration of high value-added occupations, and fourth in FDI to GRP ratio. As a port and tourist city, it will continue to enjoy many advantages, including access to shipping routes to developed economies, a growing financial sector, and interest from international companies. Proximity to South Korea and Japan has given it an international dimension and helped its development.

The increased focus on connecting all large cities in China has given Qingdao the first high-speed rail line financed by private investment.[77] The city also continues to attract international investments, with Volkswagen naming its Qingdao operations as one of two new plants as a part of a $2.7 billion investment in China.[78] Chinese refrigerator manufacturer Haier is looking to add to the Internet of Things with a new patent licensing agreement with Qualcomm.[79] This will allow Haier products to have internet access.[80] The city has the go-ahead from the energy ministry to build a $423 million coal power plant to help meet increased energy demand.[81] The push to make China more innovative is represented by investment in this city by Amazon, which opened up its China Amazon Web Services Center here.[82] And Airbus will be opening its first helicopter manufacturing plant in Qingdao, targeting the civilian market.[83]

Qingdao is one of the major port cities on the Chinese coast. It has long been a major trade hub because of the port and its international airport, which is looking to double its routes in and out of the city, and has drawn great interest. This port is the first in China to have a fully automated cargo terminal. Such unmanned "ghost ports" are a response to higher labor costs, a common theme in the development story of the coastal region.[84] Qingdao could show how automation will impact employment in the future. As a major city, Qingdao has been switching out of low-end manufacturing into more value-added products. This kind of development will become necessary as overall Chinese wages increase and populations of larger cities become increasingly middle-class. Due to the increased connectivity, both domestic and international, the port terminal may become a model for larger ports in China. If ports have a diminished role in employment in coastal cities, the development of the western super cluster will become increasingly important for job-creation.

COMPLETE RESULTS: FIRST- AND SECOND-TIER CITIES

Change in Rank over 1 Year	2016 Rank (Tier 1 & 2 Cities)	2017 Rank ((Tier 1 & 2 Cities)	City	Province	City Tier	1-Year Job Growth	5-Year Job Growth (2010-2015)	1-Year Wage Growth (2014-2015)	5-Year Wage Growth (2010-2015)	1-Year GRP Per-Capita Growth (2014-2015)	5-Year GRP Per-Capita Growth (2010-2015)	3-Year FDI Growth (2012-2015)	FDI/GRP (2015)	LQ for High Value-Added Industry (2015)
4	5	1	Chengdu	Sichuan	2	1	2	2	10	17	21	29	6	24
6	8	2	Chongqing		1	4	1	18	8	5	3	28	8	28
-2	1	3	Guiyang	Guizhou	2	13	13	26	6	1	1	4	22	29
0	4	4	Shenzhen	Guangdong	2	11	8	14	3	21	26	22	19	1
12	17	5	Nanjing	Jiangsu	2	34	9	3	4	3	4	30	21	11
-4	2	6	Shanghai		1	22	6	15	2	12	31	23	3	4
9	16	7	Zhengzhou	Henan	2	10	7	4	5	20	20	25	15	10
22	30	8	Kunming	Yunnan	2	2	19	1	13	16	5	15	12	30
-2	7	9	Nanchang	Jiangxi	2	7	5	6	7	8	9	27	9	31
2	12	10	Qingdao	Shandong	2	16	26	12	16	15	18	13	4	3
-2	9	11	Xi'an	Shaanxi	2	18	16	5	15	25	7	6	7	12
13	25	12	Lanzhou	Gansu	2	15	22	22	19	30	14	1	34	32
0	13	13	Hefei	Anhui	2	20	4	17	1	7	32	9	18	21
-3	11	14	Changchun	Jilin	2	19	18	20	14	31	15	16	2	13
-12	3	15	Tianjin		1	25	15	33	21	32	25	17	1	7
4	20	16	Hangzhou	Zhejiang	2	24	25	21	17	6	16	14	5	17
10	27	17	Beijing		1	5	28	9	18	13	30	7	13	9
6	24	18	Fuzhou	Fujian	2	3	12	11	12	10	12	21	25	23
-1	18	19	Xiamen	Fujian	2	8	14	16	22	28	19	19	11	8
-1	19	20	Changsha	Hunan	2	21	31	23	20	11	8	12	17	14
-6	15	21	Wuhan	Hubei	2	6	32	10	34	14	6	5	10	19
-12	10	22	Haikou	Hainan	2	30	11	13	11	24	10	32	27	22
0	23	23	Urumqi	Xinjiang	2	9	10	19	9	22	11	10	32	26
-3	21	24	Ningbo	Zhejiang	2	29	30	29	28	29	27	11	14	5
4	29	25	Harbin	Heilongjiang	2	27	34	25	33	4	17	8	16	20
-4	22	26	Guangzhou	Guangdong	2	26	23	24	29	18	33	24	24	6
-13	14	27	Nanning	Guangxi	2	14	17	34	24	2	2	3	33	33
0	28	28	Shijiazhuang	Hebei	2	17	29	7	23	27	23	18	28	16
NA	NA	29	Yinchuan	Ningxia	2	12	3	27	31	23	13	2	31	34
1	31	30	Jinan	Shandong	2	33	33	8	30	26	24	20	26	15
-5	26	31	Taiyuan	Shanxi	2	28	24	28	25	9	34	26	23	18
-26	6	32	Dalian	Liaoning	2	32	27	32	27	34	28	33	20	2
-1	32	33	Hohhot	Inner Mongolia	2	23	21	31	32	19	22	31	30	27
-1	33	34	Shenyang	Liaoning	2	31	20	30	26	33	29	34	29	25

REPORT FINDINGS
THIRD-TIER CITIES

#1
NANTONG, *JIANGSU*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**193rd**	**1st**	**3-Year FDI Growth (2012-2015)**	**137th**
Wage Growth	**6th**	**1st**	**FDI/GRP (2015)**	**47th**
GRP Per-Capita Growth	**25th**	**80th**	**LQ for High Value-Added Industry (2015)**	**164th**

Nantong tops the list of third-tier cities, leading the pack notably in five-year job and wage growth. The city lies north of the Yangtze River, not far from the Yellow Sea, and is also near to Shanghai, the No. 6 ranked city in our first- and second-tier category, and to Suzhou, No. 10 in our third-tier category. At the end of 2015, Nantong had a registered population of approximately 7.7 million.[85]

With its quaint bridges and waterways, Nantong is a tourist destination replete with ancient cultural assets and beauty spots. It is also a well-established commercial hub and river port city, dating back hundreds of years, and was one of the first small groups of coastal cities that opened to the outside world. It has spawned a diverse mix of industries, such as textiles, construction, and port-related sectors. In fact, Nantong is one of the largest textile distribution centers in the world. The city has also established a number of national- and local-level industrial clusters. As of summer 2016, it had six national-level development zones: Nantong Economic and Technological Development Zone, Haian Economic and Technological Development Area, Haimen Economic-Technological Development Zone, Rugao Economic Development Zone, Nantong High-tech Industrial Development Zone, and Nantong Free Trade Zone.[86]

In 2015, the total gross domestic product of Nantong was over RMB 600 billion, which places this city in tenth place among all prefecture-level cities.[87] Nantong's recent strong economic performance can also be attributed to its talent pool and well-established transportation networks. It has highways, railways, waterways and ports, as well as an airport. The opening of Sutong Bridge in 2008 and Chongqi Bridge in 2011 has helped integrate the city with neighboring Suzhou and Shanghai. Nantong also has a number of universities and colleges, such as Nantong Institute of Technology, Nantong Shipping College, and Nantong University, which can meet the local need for talent.

#2
BENGBU, *ANHUI*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**125th**	**36th**	**3-Year FDI Growth (2012-2015)**	**40th**
Wage Growth	**5th**	**39th**	**FDI/GRP (2015)**	**2nd**
GRP Per-Capita Growth	**46th**	**5th**	**LQ for High Value-Added Industry (2015)**	**107th**

Bengbu takes the No. 2 spot in our ranking, showing particular strength in the measurements for one-year wage growth, five-year GRP per-capita growth, and the FDI to GRP ratio. In 2015, Bengbu had a registered population of 3.8 million.[88] It is about 161 kilometers from the provincial capital Hefei, 209 kilometers from Nanjing, and 386 kilometers from Lianyungang, one of the major sea ports in northeast China. Bengbu has a complete transportation network including freeways, railways, and a port. The completion of the Beijing-Shanghai and Beijing-Fuzhou high-speed railways has greatly shortened the journey time from Bengbu to other major Chinese cities such as Beijing, Tianjin, Shanghai, and Fuzhou. Its geographical location and transportation infrastructure make it one of the emerging regional transport hubs that link eastern and central China.

Tertiary industries accounted for most industrial activity (53.8 percent) in Bengbu in 2015. The city has several anchor industries such as advanced equipment-manufacturing, electronics, food-processing, and pharmaceuticals. In addition, it has been developing other sectors such as automaking and glass manufacturing.

Bengbu has four major universities and colleges, including Anhui University of Finance and Economics, Anhui Vocational College of Electronics and Information Technology, Bengbu College, and Bengbu Medical College. It has been trying to deepen its talent pool through the engagement of universities and colleges, as well as public and private research institutions.

#3
FOSHAN, *GUANGDONG*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**140th**	**2nd**	**3-Year FDI Growth (2012-2015)**	**141st**
Wage Growth	**133rd**	**2nd**	**FDI/GRP (2015)**	**68th**
GRP Per-Capita Growth	**83rd**	**216th**	**LQ for High Value-Added Industry (2015)**	**4th**

Foshan takes third place in our index. It scored particularly well in five-year job and wage growth (ranked 2nd in both cases) and its concentration of high value-added industry. In 2015, the city had a population of 7.4 million, reflecting 3.28 percent population growth since 2010.[89] The literal meaning of Foshan in Chinese is the "mountain of the Buddha" and the name originated in the discovery of Buddhist statues in 628 A.D.[90] Thanks to this heritage, Foshan is known as a religious center and has a number of ancient temples and monasteries. The city is rich in culture and has great significance for the heritage and traditions of south China. It is also the birthplace of modern martial-arts masters such as Fei-Hung Huang and Ip Man, the master of Bruce Lee. All this makes Foshan a popular tourist attraction.

Since the 1980s, Guangdong Province has been known as one of the global manufacturing hubs. Foshan is also an important manufacturing hub for electrical appliances such as air-conditioners and refrigerators. This city was among one of the earliest to open its doors to international trade, and has a complete supply chain for manufacturing. In the Shunde district, there are more than 3,000 electrical appliance factories, making Foshan the largest appliance maker in the world. As of 2015, this city was also the world's largest production base for electric cookers and microwave ovens. In addition, Foshan also has a strong industrial base in beverages, ceramics, furniture, machinery, metallurgy, and textiles. [91] Because the minimum wage in Guangdong has risen and global competition has become severe, Foshan has shepherded its manufacturing industries away from original equipment manufacturing (OEM) into "intelligent manufacturing" and branding. In the past decade or so, many enterprises in Foshan have acquired and refined technological and research capabilities and enhanced branding through overseas investment and mergers and acquisitions (M&A).[92] In addition, Guangdong Industrial Design City was established in Foshan in 2009 to help small-and-medium sized enterprises conduct R&D.

Foshan abuts Guangdong Province capital Guangzhou. It is in close proximity to Shenzhen, Hong Kong, and Macau. This city has become an essential part of the Pearl River Delta Economic Zone. Foshan and Guangzhou are currently collaborating to form a "super city" to be more globally competitive. Foshan has also become part of the Yue-Gui-Qian High-Speed Rail Economic Belt. This regional cluster consists of three provinces – Guangdong (literary name: Yue), Guangxi (Gui), and Guizhou (Qian). This economic integration not only extends the market reach of Foshan, but also enables the city to play a key role in driving further economic development in less-developed Guangxi and Guizhou.

#4
JI'AN, *JIANGXI*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**15th**	**12th**	**3-Year FDI Growth (2012-2015)**	**61st**
Wage Growth	**39th**	**10th**	**FDI/GRP (2015)**	**20th**
GRP Per-Capita Growth	**81st**	**52nd**	**LQ for High Value-Added Industry (2015)**	**52nd**

Ji'an was in the top 10 in our 2015 ranking and in 2017 once again joins the third-tier *crème de la crème*. In three categories, one-year job growth and five-year job and wage growth, it makes the top 15. Historically and naturally, the city is very well endowed. In 2015, Ji'an had a registered population of 5.3 million.[93] Its strategic location and its efforts to develop anchor industries also make this city stand out.

Founded in 2001 and upgraded to a national-level industrial cluster in 2010, the National Jinggangshan Economic and Technological Development Zone focuses on three pillar industries: advanced equipment manufacturing, bio-food and pharmaceuticals, and electronics and information technology. It has also been cultivating a modern services industry to diversify its industrial structure. In 2011, this zone added the Jinggangshan Export Processing Zone to streamline logistics and distribution processes and save time and business costs for enterprises.

Ji'an has been improving its transportation systems. It now has highway links with other major Chinese cities such as Guangzhou, Shenzhen, and Xiamen. The Gan-Shen high-speed railway connecting Jiangxi cities to Shenzhen is expected to open in 2020 and reduce the journey time from Ji'an to Shenzhen to less than three hours. Ji'an also has railways for transportation of goods to sea ports in Shenzhen and Xiamen, enhancing export efficiency. In addition, Jinggangshan Airport now has flights from Ji'an to other major cities such as Beijing, Shanghai, Chengdu, and Shenzhen.

Ji'an is located at a pivotal point close to the Yangtze River Economic Belt, the Pearl River Delta Economic Zone, and other inland cities such as Guiyang, Chongqing, and Chengdu. Its location may give Ji'an strategic advantages as a growing regional distribution hub for goods and services. Although Ji'an has two major universities and colleges, Jinggangshan University and Ji'an College, and a research center of the Chinese Academy of Sciences, it still has scope to improve its talent pool. Ji'an may also need to develop more strategies to leverage the OBOR initiative to bolster its economy.

#5
ZUNYI, *GUIZHOU*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**144th**	**77th**	**3-Year FDI Growth (2012-2015)**	**2nd**
Wage Growth	**61st**	**33rd**	**FDI/GRP (2015)**	**161st**
GRP Per-Capita Growth	**3rd**	**1st**	**LQ for High Value-Added Industry (2015)**	**168th**

Zunyi takes fifth place in our ranking, thanks mainly to its impressive one- and five-year GRP per-capita growth and three-year FDI growth. The city, located on a plateau in Guizhou Province, had a registered population of 7.9 million in 2015.[94] Its mountainous topology, land-locked geography, and proneness to torrential rain have hindered Guizhou's economic development. Nonetheless, the province is still a place of great natural beauty, with a large minority population, making it an appealing tourist destination. It was recommend by the New York Times as a must-see place in 2016.[95] It has unpolluted soil suitable for tea, and has recently expanded planting acreage. Fenggang, a county under the administration of Zunyi, has become known for its organic tea. In addition, Zunyi is also famous for distilled liquor. Maotai, a brand of baijiu spirit, is made in the town of the same name within Zunyi's boundaries. Exporting tea and baijiu has become one of the mainstays of the local economy.

In addition to tea, liquor, and tourism, Zunyi has recently been developing other industries such as advanced equipment manufacturing, electronics, logistics, modern services, new energy, and new materials. It has several industrial clusters, such as the Zunyi Economic and Technological Development Zone and the Zunyi (Shanghai) Industrial Park. Since 2009, it has developed the San Po New Area. It has two major new towns, the Guizhou San Po Economic Development Zone, and an airport town.

Generally, the strengthening performance of Zunyi and Guizhou has largely to do with the improvement of transportation infrastructure. Once inaccessible, Guizhou has become a rising star in economic development. Zunyi is located immediately north of Guiyang (ranked 1st among first- and second-tier cities in our 2016 report). The prosperity of Guiyang also benefits neighboring cities like Zunyi. One of the areas Zunyi needs to cultivate is its talent pool. Zunyi has several small colleges generating its talent pool for next-generation growth.

#6
TAIZHOU, *JIANGSU*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**93rd**	**3rd**	**3-Year FDI Growth (2012-2015)**	**159th**
Wage Growth	**144th**	**4th**	**FDI/GRP (2015)**	**72nd**
GRP Per-Capita Growth	**20th**	**63rd**	**LQ for High Value-Added Industry (2015)**	**117th**

Taizhou takes sixth place among third-tier cities. Although Taizhou has a 2,100-year history, it did not become a prefecture-level city until 1996. In 2015, its registered population was close to 5.1 million.[96] It is located north of the Yangtze River, about two hours east of the Jiangsu Province capital, Nanjing. It is also approximately two hours away from Suzhou and three hours from Shanghai. Taizhou is a key part of the Yangtze River Delta Economic Zone. In the last three years, it has made the top 10 third-tier cities in terms of economic performance.

Taizhou's strong economic performance is not only a matter of location, but is also due to its proactive approach to economic development, talent accumulation, and improved transportation infrastructure. Taizhou has developed diverse industrial sectors such as food-processing, manufacturing, metallurgy, pharmaceuticals, port-related industry, and textiles. More recently, Taizhou has become known for its thriving pharmaceutical industry. In the last two decades, it has been a pioneer in the pharmaceutical industry in Jiangsu Province. In 2009, the national-level China Medical City (CMC) (also known as the Taizhou National Medical High-tech Development Zone) was established in Taizhou. CMC covers subsectors of the pharmaceutical industry such as biotech products, cosmetics, and medical equipment. It also provides companies with an integrated and streamlined platform for R&D, clinical trials, new drug registration, production, sale, and distribution. In addition, companies in CMC can use equipment free of charge. These benefits help enterprises, startups in particular, dramatically save time and reduce costs. To cultivate pharmaceutical industries and companies, CMC has held the China (Taizhou) International Medical Expo since 2010, helping companies build domestic and international connections and attract more investors to CMC. Taizhou Concentrated Free Trade Zone provides tax incentives to investors.

The success of CMC has also attracted many foreign professionals to live and work in Taizhou. There are also quite a few universities and colleges in the city. Taizhou boasts one of the largest corps of postdoctoral researchers in China. In addition to its talent pool, the city's transportation infrastructure including highways, railways, ports, and an airport has been improving. The opening of the Jiangyin Yangtze River Bridge in 1999 has greatly shortened the driving time from Taizhou to Suzhou and Shanghai. The Yangzhou Taizhou Airport, opened in 2012, has made Taizhou's transportation network more diverse

#7
LUOHE, *HENAN*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**12th**	**66th**	**3-Year FDI Growth (2012-2015)**	**94th**
Wage Growth	**33rd**	**41st**	**FDI/GRP (2015)**	**6th**
GRP Per-Capita Growth	**157th**	**178th**	**LQ for High Value-Added Industry (2015)**	**14th**

Luohe ranks seventh in our index, taking sixth place for FDI to GRP ratio and 14th place for concentration of high value-added industry. Located at the center of Henan Province, Luohe in 2015 had a registered population of 2.7 million.[97] It is a city with history. Shen Xu, who lived in the Eastern Han Dynasty (25-189 A.D.) and wrote the earliest Chinese dictionary, *Shuowen Jiezi*, was born here.

In 2015, secondary and tertiary industries in Luohe accounted for 62.6 percent and 37.4 percent of total local employment, respectively.[98] Luohe is particularly known for its food-processing, papermaking, and salt chemical industries. Established in 1992 and upgraded to a national-level industrial cluster, Luohe Economic and Technological Development Zone focuses on three major industrial sectors: food-processing, high technologies, and modern services.[99] More recently, Luohe has also attempted to cultivate different industries such as new energy, new materials, and biomedicals.[100]

Luohe has become a sub-regional trade node, with the Beijing–Hong Kong–Macau Expressway and Beijing-Guangzhou Railway passing through the city. In September 2012, a station along the Beijing–Guangzhou–Shenzhen–Hong Kong High-Speed Railway opened in Luohe. These improvements in transportation infrastructure are all helping bolster the economic development of Luohe. Nevertheless, if this city is to maintain its growth momentum, it needs to deepen its talent pool and strengthen its newly developed industries.

#8
YANGZHOU, *JIANGSU*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**188th**	**5th**	**3-Year FDI Growth (2012-2015)**	**191st**
Wage Growth	**9th**	**3rd**	**FDI/GRP (2015)**	**100th**
GRP Per-Capita Growth	**29th**	**64th**	**LQ for High Value-Added Industry (2015)**	**123rd**

In 2015, Yangzhou had a registered population of 4.6 million.[101] Yangzhou is next to Jiangsu's capital, Nanjing. It is to the northwest of Suzhou and Shanghai, and is some 200 kilometers from the former and 275 kilometers from the latter. The built-out high-speed rail transit system in the Yangtze River Economic Zone has elevated the city's long recognized position as the key sub-transportation hub and sub-commercial center in the region. It has become a key point in the northern Yangtze River Economic Belt. Yangzhou was ranked third in 2015 and 11th in 2016. It performs well again this year, placing at No. 8.

This is a place with approximately 2,500 years of history. In addition to its historic heritage, the city boasts waterways and natural beauties, such that it is nicknamed the "Oriental Venice." The Yangtze River and Grand Canal, which is the world's longest canal and was designated as a UNESCO World Heritage Site in 2014, meet in Yangzhou.[102] The Grand Canal made Yangzhou an important trading port in ancient China, and helped it become a market for salt merchandise from the Qing Dynasty (1644-1912) onward. Although its economic role has now faded, the city has attempted to leverage the canal to benefit the city in several ways. For example, the World Historic and Cultural Canal Cities Cooperation Organization (WCCO) was established in Yangzhou in 2009. The WCCO is involved in cultural, economic, and environmental exchange and cooperation with other canal cities. Its historical and natural assets also make Yangzhou a popular tourism spot in China.

Modern Yangzhou has expanded its economy beyond tourism. It has also introduced a variety of industries such as food-processing, information technology, and petrochemicals. To bolster its economic development, Yangzhou has set up more than ten industrial parks, such as the Yangzhou High-tech Industrial Development Zone. More recently, the city has attempted to increase its industrial diversity. In April 2007, it established the Voice Park (also known as the Jiangsu Information Services Industry Base (Yangzhou) with call and data centers. Jiangsu Yangzhou National Agricultural Science and Technology Park was founded in 2005. Yangzhou is currently planning a world-class industrial zone focusing on bio-tech and healthcare. The opening of the Yangzhou Taizhou Airport in 2012 further complements the highways and railways making up the city's transport network. In addition, the OBOR initiative has benefited Yangzhou. For example, exports by Famsun Holdings, China's largest food- and feed-machinery manufacturer and headquartered in Yangzhou, have been expanding due to this initiative.[103]

Apart from bolstering its economy, Yangzhou has recently been taking an ecological approach to urban development. The city has been trying to increase its green space and enhance environmental protection and quality of life. In late 2013, it established an eco-technological new town. By leveraging the Grand Canal, Yangzhou is currently developing the Jianghuai Ecological Corridor. With a good quality of life, natural and historical resources, and diversified industries, Yangzhou is committed to becoming a city for living, tourism, and entrepreneurship. It was ranked No. 9 in Fang.com's *2015 China Top-10 Livable City Ranking*.[104] If it can maintain momentum, it has a bright economic future.

#9
YICHANG, *HUBEI*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**16th**	**27th**	**3-Year FDI Growth (2012-2015)**	**63rd**
Wage Growth	**22nd**	**14th**	**FDI/GRP (2015)**	**146th**
GRP Per-Capita Growth	**42nd**	**7th**	**LQ for High Value-Added Industry (2015)**	**30th**

Yichang comes ninth among third-tier cities, making the top 16 in one-year job and five-year wage growth and coming seventh in five-year GRP per-capita growth. In 2015, the registered population in Yichang was approximately 4 million.[105] Yichang is located at a pivotal location connected to other major cities including Wuhan, Changsha, Guiyang, Chongqing, Xi'an, and Zhengzhou. This makes this city an important regional hub for logistics and distribution. In addition, Yichang is known for its role in power generation. Despite the controversy over its environmental impact, the building of the Three Gorges Dam, the world's largest hydroelectric power plant, not only helps Yichang reinforce its role in the energy supply, but also bolsters its tourism industry.

The Yichang Hi-tech Industry Development Zone is the major industrial base for the city. It was established in 1988 and was upgraded to a national-level industrial zone in 2010. There are four sub-parks in this zone, including Hubei Shenzhen Park, Dongshan Park, Xiaoting Park, and Baiyang Park.[106] The focus is on eight industries: advanced equipment manufacturing, biomedicals, chemical engineering, culture and tourism, information technology, modern logistics, modern services, and new materials. A logistics center providing streamlined services and tax incentives for businesses was established in Yichang in November 2015.

In April 2017, China launched a third group of Pilot Free Trade Zones (FTZs) to bolster the economic development of cities peripheral to the zones. This group of zones extends from northeast to central China, as well as from the eastern to western China.[107] The China (Hubei) Pilot FTZ is also part of this emerging group. The Hubei FTZ covers three sub-zones, in Wuhan, Xiangyang and Yichang, and this will bolster the importance of Yichang in the Yangtze River Delta Economic Zone. Yichang's importance as a logistics center has been increasing under the OBOR initiative as well. In June 2017, a China Railway Express transported consumer goods from Nuremberg to Yichang for the very first time. This will also help Yichang expand its trade.

#10
SUZHOU, *JIANGSU*

	1 YEAR (2014 - 2015)	5 YEAR (2014 - 2015)		
Job Growth	**173rd**	**7th**	**3-Year FDI Growth (2012-2015)**	**167th**
Wage Growth	**151st**	**9th**	**FDI/GRP (2015)**	**33rd**
GRP Per-Capita Growth	**122nd**	**162nd**	**LQ for High Value-Added Industry (2015)**	**3rd**

Suzhou, a strong performer in past rankings, rounds off our top 10 third-tier cities list. It made the top 10 for five-year job and wage growth and concentration of high value-added industry. In 2015, Suzhou had a registered population of 6.7 million.[108] It is about 97 kilometers to the west of Shanghai and only 40 minutes away by high-speed rail. Suzhou is a city with a 2,500 year history. Things to see include the Taihu Lake, the Humble Administrator's Garden, and Suzhou Museum, partly designed by the world renowned architect I.M. Pei. At the same time, it is one of the most modernized cities in Jiangsu Province. The mix of old and new makes Suzhou a renowned tourism destination.

Suzhou has also developed a variety of industries, particularly within its industrial zones. Founded in 1994 by China and Singapore, Suzhou Industrial Park (SIP) is one of the most successful industrial parks in China. It has promoted several major industries in China, such as biomedicals, equipment manufacturing, information technology, and nanotechnology. It aims to upgrade industry from "made in China" to "innovated in China." SIP is pouring resources into the biomedical sectors. The SIP BioBay opened in June 2007 and has served as a platform for cultivating the biomedical and nanotechnology industries. West of SIP, Suzhou New District focuses on biotechnology, consumer electronics, information technology, pharmaceuticals, and precision instruments. The concentration of universities and colleges such as Soochow University, Suzhou University of Science and Technology, and Xi'an Jiaotong-Liverpool University (XJTLU) in Suzhou also plays a critical role in bolstering this city's economic prosperity.

About 48 kilometers to the east, Kunshan is a county-level city under Suzhou. The rise of Kunshan's economy can be largely attributed to Taiwanese investment since the 1990s. In recent years, Kunshan has become a major manufacturing base for bikes and laptops. More recently, it has been trying to shift its industrial center of gravity from manufacturing to modern services such as the cultural and creative industries. From west to east, Suzhou, Kunshan, and Shanghai form a strong economic belt that propels the growth of the Yangtze River Delta Economic Zone.

COMPLETE RESULTS: THIRD-TIER CITIES

Change in Rank over 1 Year	2017 Rank (Tier 3 Cities)	2017 Rank (Tier 3 Cities)	City	Province	1-Year Job Growth (2014-2015)	5-Year Job Growth (2010-2015)	1-Year Wage Growth (2014-2015)	5-Year Wage Growth (2010-2015)	1-Year GRP Per-Capita Growth (2014-2015)	5-Year GRP Per-Capita Growth (2010-2015)	3-Year FDI Growth (2012-2015)	FDI/GRP (2015)	LQ for High Value-Added Industry (2015)
5	6	1	Nantong	Jiangsu	193	1	6	1	25	80	137	47	164
36	38	2	Bengbu	Anhui	125	36	5	39	46	5	40	2	107
22	25	3	Foshan	Guangdong	140	2	133	2	83	216	141	68	4
16	20	4	Ji'an	Jiangxi	15	12	39	10	81	52	61	20	52
26	31	5	Zunyi	Guizhou	144	77	61	33	3	1	2	161	168
-3	3	6	Taizhou	Jiangsu	93	3	144	4	20	63	159	72	117
15	22	7	Luohe	Henan	12	66	33	41	157	178	94	6	14
3	11	8	Yangzhou	Jiangsu	188	5	9	3	29	64	191	100	123
3	12	9	Yichang	Hubei	16	27	22	14	42	7	63	146	30
-5	5	10	Suzhou	Jiangsu	173	7	151	9	122	162	167	33	3
136	147	11	Nanchong	Sichuan	10	18	1	13	113	56	115	184	124
17	29	12	Chuzhou	Anhui	27	98	45	42	73	32	23	10	66
63	76	13	Suzhou	Anhui	49	55	187	108	61	3	26	24	10
0	14	14	Jiujiang	Jiangxi	32	84	35	35	86	58	50	7	62
21	36	15	Ningde	Fujian	21	13	32	15	51	12	37	128	54
89	105	16	Jiaxing	Zhejiang	72	209	2	199	142	160	70	13	7
11	28	17	Wuhu	Anhui	67	29	69	47	112	184	41	5	27
6	24	18	Zhuhai	Guangdong	126	149	141	96	69	144	71	3	6
-10	9	19	Suqian	Jiangsu	85	6	74	5	11	19	166	129	93
-2	18	20	Zhaoqing	Guangdong	39	39	86	44	90	89	124	15	19
-5	16	21	Huai'an	Jiangsu	147	14	11	11	7	16	175	29	76
8	30	22	Huanggang	Hubei	158	32	3	40	21	30	11	168	90
24	47	23	Dongguan	Guangdong	77	189	102	170	68	217	56	8	1
25	49	24	Yichun	Jiangxi	17	30	48	19	96	42	96	37	41
35	60	25	Ganzhou	Jiangxi	20	91	23	37	79	96	108	17	79
-22	4	26	Xiangyang	Hubei	33	9	204	25	41	8	45	98	67
42	69	27	Bazhong	Sichuan	9	8	14	32	16	88	14	182	202
26	54	28	Zhumadian	Henan	14	20	52	24	9	25	100	106	101
14	43	29	Fuzhou	Jiangxi	54	15	104	7	93	103	22	56	154
16	46	30	Shangrao	Jiangxi	34	40	27	16	98	71	90	23	133
78	109	31	Kaifeng	Henan	26	53	51	114	23	72	12	45	80
2	34	32	Beihai	Guangxi	52	128	70	138	167	4	4	103	82
-6	27	33	Putian	Fujian	64	23	181	20	18	24	80	93	31
17	51	34	Bozhou	Anhui	59	63	76	72	109	50	29	16	100
23	58	35	Weihai	Shandong	42	65	50	68	50	186	89	50	9
127	163	36	Xuancheng	Anhui	127	106	92	84	119	54	27	9	69

Change in Rank over 1 Year	2017 Rank (Tier 3 Cities)	2017 Rank (Tier 3 Cities)	City	Province	1-Year Job Growth (2014-2015)	5-Year Job Growth (2010-2015)	1-Year Wage Growth (2014-2015)	5-Year Wage Growth (2010-2015)	1-Year GRP Per-Capita Growth (2014-2015)	5-Year GRP Per-Capita Growth (2010-2015)	3-Year FDI Growth (2012-2015)	FDI/GRP (2015)	LQ for High Value-Added Industry (2015)	LQ for High Value-Added Industry (2015)
7	44	37	Zhangzhou	Fujian	22	85	103	75	14	35	122	42	35	24
15	53	38	Shangqiu	Henan	4	22	101	36	74	115	104	114	108	28
44	83	39	Lianyungang	Jiangsu	120	75	10	51	19	69	134	53	74	29
-1	39	40	Ezhou	Hubei	25	146	93	18	91	51	77	63	43	1
40	81	41	Ziyang	Sichuan	99	33	56	54	89	9	13	148	125	11
-1	41	42	Hebi	Henan	98	102	200	185	121	139	36	4	46	4
-20	23	43	Jieyang	Guangdong	48	10	167	8	110	66	205	208	24	10
1	45	44	Jingmen	Hubei	73	130	57	22	106	31	59	85	47	30
-19	26	45	Changzhou	Jiangsu	152	16	149	27	54	113	184	64	16	31
79	125	46	Liaoyuan	Jilin	142	64	131	56	102	59	15	36	78	3
14	61	47	Zhuzhou	Hunan	37	104	67	102	66	92	51	38	51	12
4	52	48	Chizhou	Anhui	131	46	73	52	134	83	49	21	121	32
151	200	49	Chifeng	Inner Mongolia	192	170	210	169	137	102	1	186	192	21
36	86	50	Jiaozuo	Henan	50	37	96	76	150	149	112	35	22	13
11	62	51	Pingxiang	Jiangxi	46	61	64	38	130	106	98	61	72	7
28	80	52	Yancheng	Jiangsu	43	24	24	31	10	38	192	112	99	17
-11	42	53	Zhenjiang	Jiangsu	105	94	83	94	53	93	173	51	15	9
-19	35	54	Shiyan	Hubei	36	51	143	81	37	57	30	115	50	23
41	96	55	Baoshan	Yunnan	24	99	31	50	15	13	57	104	180	8
98	154	56	Mudanjiang	Heilongjiang	84	168	123	162	8	105	6	57	140	14
-44	13	57	Huizhou	Guangdong	91	156	89	92	151	150	168	58	5	19
30	88	58	Maanshan	Anhui	90	48	188	117	183	224	86	1	77	22
60	119	59	Shantou	Guangdong	107	26	60	17	34	171	44	141	55	26
-4	56	60	Guilin	Guangxi	41	73	40	79	114	104	25	62	111	5
89	150	61	Quzhou	Zhejiang	101	135	54	163	1	74	127	180	49	20
-41	21	62	Zhongshan	Guangdong	206	213	171	6	101	203	179	122	2	6
81	144	63	Nanping	Fujian	69	194	8	128	31	21	46	143	89	33
30	94	64	Luoyang	Henan	35	80	145	110	143	167	118	14	56	16
-65		65	Chenzhou	Hunan	133	127	21	157	76	79	32	19	162	34
-16	50	66	Panzhihua	Sichuan	1	21	222	165	92	85	147	144	75	15
-27	40	67	Xuchang	Henan	108	35	168	55	160	119	64	65	25	18
35	103	68	Zhoukou	Henan	45	38	109	48	136	41	106	89	84	2
-37	32	69	Xiaogan	Hubei	71	89	94	67	60	65	85	88	64	27
-11	59	70	Wuxi	Jiangsu	174	68	124	49	156	174	155	48	8	25
-5	66	71	Jiangmen	Guangdong	155	107	112	58	59	197	142	41	12	
-8	64	72	Shanwei	Guangdong	95	43	119	28	108	131	198	135	13	
65	138	73	Tonghua	Jilin	165	72	114	53	201	121	82	32	28	
5	79	74	Xinyu	Jiangxi	62	70	97	89	140	164	164	43	18	

Change in Rank over 1 Year	2017 Rank (Tier 3 Cities)	2017 Rank (Tier 3 Cities)	City	Province	1-Year Job Growth (2014-2015)	5-Year Job Growth (2010-2015)	1-Year Wage Growth (2014-2015)	5-Year Wage Growth (2010-2015)	1-Year GRP Per-Capita Growth (2014-2015)	5-Year GRP Per-Capita Growth (2010-2015)	3-Year FDI Growth (2012-2015)	FDI/GRP (2015)	LQ for High Value-Added Industry (2015)	LQ for High Value-Added Industry (2015)
-18	57	75	Rizhao	Shandong	96	49	142	77	166	135	95	59	32	24
25	101	76	Binzhou	Shandong	53	76	111	45	171	163	156	118	11	28
-5	72	77	Xianyang	Shaanxi	81	54	62	70	162	22	24	173	106	29
-59	19	78	Sanya	Hainan	18	17	30	12	67	210	169	60	185	1
20	99	79	Heze	Shandong	28	78	41	34	64	26	111	150	187	11
-79	1	80	Zhoushan	Zhejiang	30	4	136	187	65	172	189	162	88	4
62	143	81	Nanyang	Henan	44	92	29	74	52	155	76	97	118	10
-67	15	82	Xiangtan	Hunan	222	57	177	175	35	33	58	25	44	30
23	106	83	Luzhou	Sichuan	38	58	88	30	72	28	101	181	178	31
13	97	84	Maoming	Guangdong	58	56	90	23	158	110	18	163	167	3
99	184	85	Guigang	Guangxi	86	132	4	60	85	129	73	201	172	12
-18	68	86	Huzhou	Zhejiang	68	101	147	143	103	143	150	28	48	32
52	139	87	Lishui	Zhejiang	23	179	25	155	147	116	19	110	131	21
-15	73	88	Suizhou	Hubei	160	114	137	99	30	17	55	125	92	13
-7	82	89	Heyuan	Guangdong	29	181	46	124	138	126	160	117	23	7
-53	37	90	Yingtan	Jiangxi	6	41	226	141	132	60	88	49	29	17
1	92	91	Mianyang	Sichuan	100	50	106	57	84	75	133	132	112	9
3	95	92	Yantai	Shandong	183	152	134	115	63	158	102	67	21	23
29	122	93	Wuzhou	Guangxi	94	125	68	116	2	20	207	214	61	8
4	98	94	Puyang	Henan	92	105	172	109	111	109	34	31	138	14
46	141	95	Guang'an	Sichuan	3	82	179	104	22	14	93	177	219	19
122	218	96	Jiamusi	Heilongjiang	63	225	75	174	75	97	3	69	201	22
33	130	97	Yongzhou	Hunan	118	176	113	188	38	86	67	22	170	26
-96	2	98	Weifang	Shandong	75	148	115	179	44	122	114	111	39	5
41	140	99	Suining	Sichuan	166	123	125	87	4	23	87	157	136	20
37	137	100	Linyi	Shandong	121	28	55	29	141	147	170	195	60	6
59	160	101	Yulin	Guangxi	104	118	37	93	70	108	28	202	119	33
-37	65	102	Chaozhou	Guangdong	176	34	110	21	28	141	212	204	26	16
-40	63	103	Xinxiang	Henan	194	47	186	64	177	125	74	27	91	34
4	108	104	Quanzhou	Fujian	187	192	159	139	95	123	125	79	17	15
8	113	105	Fuyang	Anhui	47	173	38	111	116	78	35	124	153	18
-22	84	106	Jingzhou	Hubei	119	211	126	66	33	29	81	154	95	2
-32	75	107	Yunfu	Guangdong	110	116	105	63	77	82	183	158	40	27
-38	70	108	Ankang	Shaanxi	40	74	36	127	6	2	210	226	207	25
2	111	109	Tai'an	Shandong	185	108	176	113	131	151	10	121	86	
14	124	110	Dezhou	Shandong	129	60	84	26	118	130	176	188	57	
5	116	111	Changde	Hunan	136	162	63	153	58	90	31	73	160	
103	215	112	Lu'an	Anhui	76	193	154	151	5	73	116	44	179	

Change in Rank over 1 Year	2017 Rank (Tier 3 Cities)	2017 Rank (Tier 3 Cities)	City	Province	1-Year Job Growth (2014-2015)	5-Year Job Growth (2010-2015)	1-Year Wage Growth (2014-2015)	5-Year Wage Growth (2010-2015)	1-Year GRP Per-Capita Growth (2014-2015)	5-Year GRP Per-Capita Growth (2010-2015)	3-Year FDI Growth (2012-2015)	FDI/GRP (2015)	LQ for High Value-Added Industry (2015)	LQ for High Value-Added Industry (2015)
8	121	113	Loudi	Hunan	179	186	194	43	94	27	38	76	147	24
88	202	114	Fangchenggang	Guangxi	5	133	44	214	149	47	65	185	197	28
-115		115	Baise	Guangxi	19	142	13	130	100	100	75	212	194	29
17	133	116	Yuxi	Yunnan	137	67	121	88	145	117	47	174	98	1
0	117	117	Erdos	Inner Mongolia	13	11	185	97	159	213	131	34	171	11
34	152	118	Qinhuangdao	Hebei	162	175	150	194	155	199	97	18	53	4
-19	100	119	Xinyang	Henan	60	62	220	154	12	76	107	81	128	10
36	156	120	Hengyang	Hunan	186	195	85	181	40	94	42	40	150	30
-19	102	121	Jingdezhen	Jiangxi	156	166	118	90	153	127	72	92	68	31
-2	120	122	Xining	Qinghai	143	143	156	131	123	99	20	178	85	3
42	165	123	Yibin	Sichuan	65	188	78	91	115	91	123	197	97	12
66	190	124	Leshan	Sichuan	7	207	174	203	45	95	152	152	103	32
-40	85	125	Xuzhou	Jiangsu	151	25	218	78	78	61	153	75	137	21
8	134	126	Liaocheng	Shandong	106	95	95	71	117	137	185	207	36	13
19	146	127	Anyang	Henan	87	93	138	103	144	165	62	78	132	7
20	148	128	Huangshan	Anhui	109	139	66	107	152	36	161	66	156	17
74	203	129	Longyan	Fujian	78	212	42	189	80	101	113	123	115	9
64	194	130	Baishan	Jilin	153	199	120	198	198	133	8	39	189	23
20	151	131	Chongzuo	Guangxi	79	215	20	186	148	68	21	145	184	8
4	136	132	Pu'er	Yunnan	124	131	18	65	57	11	225	224	149	14
-126	7	133	Baoji	Shaanxi	51	109	100	140	27	49	214	223	63	19
27	161	134	Sanming	Fujian	55	159	116	146	120	70	68	149	143	22
-28	107	135	Deyang	Sichuan	208	121	157	121	99	62	138	137	38	26
-136		136	Xingtai	Hebei	148	113	80	149	82	177	16	139	144	5
16	153	137	Meizhou	Guangdong	103	120	19	62	39	152	172	159	134	20
-9	129	138	Zhanjiang	Guangdong	123	119	99	85	135	120	33	166	161	6
43	182	139	Suihua	Heilongjiang	201	202	77	150	49	39	43	109	157	33
-50	90	140	Yangjiang	Guangdong	171	110	163	46	88	34	178	164	109	16
-14	127	141	Shaoyang	Hunan	145	157	79	134	17	44	129	131	182	34
15	157	142	Guangyuan	Sichuan	89	147	34	106	124	15	140	172	203	15
63	206	143	Cangzhou	Hebei	113	141	28	136	126	168	110	126	135	18
35	179	144	Siping	Jilin	214	220	87	167	173	118	7	101	165	2
46	191	145	Dazhou	Sichuan	11	88	122	100	196	114	69	175	208	27
-34	112	146	Baoding	Hebei	197	71	128	59	13	136	158	130	142	25
-29	118	147	Qiqihar	Heilongjiang	138	216	153	201	107	154	103	52	87	
-57	91	148	Hanzhong	Shaanxi	135	137	140	125	62	10	193	217	141	
-14	135	149	Liuzhou	Guangxi	56	31	53	178	165	112	222	220	102	
-22	128	150	Zhangjiajie	Hunan	198	184	127	137	24	55	39	105	214	

Change in Rank over 1 Year	2017 Rank (Tier 3 Cities)	2017 Rank (Tier 3 Cities)	City	Province	1-Year Job Growth (2014-2015)	5-Year Job Growth (2010-2015)	1-Year Wage Growth (2014-2015)	5-Year Wage Growth (2010-2015)	1-Year GRP Per-Capita Growth (2014-2015)	5-Year GRP Per-Capita Growth (2010-2015)	3-Year FDI Growth (2012-2015)	FDI/GRP (2015)	LQ for High Value-Added Industry (2015)	LQ for High Value-Added Industry (2015)
-73	78	151	Shangluo	Shaanxi	215	44	26	69	47	6	226	225	196	24
-29	123	152	Yiyang	Hunan	209	177	178	166	48	46	66	120	129	28
2	155	153	Zibo	Shandong	191	81	161	83	176	180	128	127	71	29
-39	115	154	Anqing	Anhui	196	83	192	86	36	111	177	136	96	1
16	171	155	Jinzhong	Shanxi	70	206	182	204	194	201	9	55	190	11
-69	87	156	Neijiang	Sichuan	167	59	129	95	164	77	187	176	130	4
-86	71	157	Xianning	Hubei	111	145	169	133	87	18	196	170	120	10
16	174	158	Baicheng	Jilin	175	165	43	118	170	128	60	94	200	30
27	186	159	Jilin	Jilin	207	140	170	152	186	193	78	30	83	31
62	222	160	Jixi	Heilongjiang	2	204	72	217	181	206	92	74	220	3
32	193	161	Zhangjiakou	Hebei	122	167	17	192	185	190	109	86	159	12
-162		162	Zhaotong	Yunnan	31	115	16	120	129	48	181	221	226	32
4	167	163	Baotou	Inner Mongolia	128	129	175	196	182	181	171	96	33	21
16	180	164	Chengde	Hebei	88	150	71	176	184	153	121	140	139	13
-23	142	165	Sanmenxia	Henan	182	161	212	202	188	173	105	11	188	7
-17	149	166	Shaoxing	Zhejiang	112	111	152	132	146	176	145	102	152	17
-1	166	167	Ya'an	Sichuan	80	160	98	129	32	98	186	193	191	9
-23	145	168	Yueyang	Hunan	204	221	183	191	56	45	53	138	122	23
-37	132	169	Qingyuan	Guangdong	163	158	132	119	97	214	188	142	34	8
38	208	170	Handan	Hebei	184	90	59	144	180	205	139	77	145	14
41	212	171	Songyuan	Jilin	134	136	162	158	161	145	84	99	186	19
-13	159	172	Zigong	Sichuan	202	117	203	142	104	67	136	209	113	22
-165	8	173	Meishan	Sichuan	74	97	224	61	26	37	163	133	126	26
-4	170	174	Jining	Shandong	180	79	213	156	127	146	126	91	151	5
-49	126	175	Wenzhou	Zhejiang	57	214	148	212	43	192	157	167	73	20
25	201	176	Heihe	Heilongjiang	146	198	81	222	55	84	149	70	224	6
-19	158	177	Shaoguan	Guangdong	164	172	108	164	172	107	199	190	94	33
0	178	178	Hezhou	Guangxi	150	164	12	98	154	132	216	210	193	16
-69	110	179	Taizhou	Zhejiang	97	42	209	147	133	169	201	199	105	34
25	205	180	Tongliao	Inner Mongolia	82	138	58	73	200	134	195	215	181	15
7	188	181	Huaihua	Hunan	205	200	160	197	71	53	91	151	199	18
10	192	182	Zaozhuang	Shandong	117	100	155	105	179	170	162	183	155	2
-116	67	183	Huangshi	Hubei	177	224	146	172	190	87	197	147	58	27
-11	173	184	Weinan	Shaanxi	115	124	164	168	169	40	208	218	166	25
-130	55	185	Hechi	Guangxi	161	201	7	145	175	202	182	219	177	
-10	176	186	Liaoyang	Liaoning	200	196	208	208	178	182	154	54	65	
11	198	187	Xinzhou	Shanxi	168	187	135	160	197	148	17	171	218	
-16	172	188	Qujing	Yunnan	211	69	139	171	204	140	48	194	176	

Change in Rank over 1 Year	2017 Rank (Tier 3 Cities)	2017 Rank (Tier 3 Cities)	City	Province	1-Year Job Growth (2014-2015)	5-Year Job Growth (2010-2015)	1-Year Wage Growth (2014-2015)	5-Year Wage Growth (2010-2015)	1-Year GRP Per-Capita Growth (2014-2015)	5-Year GRP Per-Capita Growth (2010-2015)	3-Year FDI Growth (2012-2015)	FDI/GRP (2015)	LQ for High Value-Added Industry (2015)	LQ for High Value-Added Industry (2015)
-12	177	189	Lijiang	Yunnan	83	126	65	112	192	81	213	216	216	24
-26	164	190	Laiwu	Shandong	210	112	214	200	214	215	132	108	20	28
-6	185	191	Jincheng	Shanxi	116	86	219	184	193	187	144	82	169	29
-115	77	192	Jinzhou	Liaoning	170	103	107	126	207	159	217	165	110	1
-18	175	193	Ulanqab	Inner Mongolia	157	183	91	135	125	124	202	187	198	11
17	211	194	Pingdingshan	Henan	149	153	198	209	168	207	135	87	146	4
2	197	195	Tangshan	Hebei	190	191	166	210	208	198	143	107	81	10
-107	89	196	Jiuquan	Gansu	169	45	130	82	220	212	119	160	148	30
-83	114	197	Yulin	Shaanxi	225	96	184	101	219	161	5	192	158	31
18	216	198	Laibin	Guangxi	61	151	202	216	191	185	120	179	163	3
0	199	199	Hulunbuir	Inner Mongolia	114	190	193	177	128	43	194	205	204	12
-183	17	200	Jinhua	Zhejiang	132	19	225	183	105	142	146	155	183	32
-127	74	201	Yingkou	Liaoning	216	122	173	148	205	157	223	198	37	21
15	217	202	Linfen	Shanxi	141	197	82	182	216	209	130	134	174	13
-16	187	203	Dongying	Shandong	212	185	190	190	195	179	99	169	116	7
-8	196	204	Yuncheng	Shanxi	203	163	47	122	209	189	218	213	104	17
15	220	205	Datong	Shanxi	159	217	189	211	139	166	151	116	205	9
-37	169	206	Huludao	Liaoning	199	182	165	161	189	188	224	203	70	23
-18	189	207	Changzhi	Shanxi	181	155	205	195	217	208	52	46	173	8
-77	131	208	Huaibei	Anhui	224	169	223	223	202	138	54	12	206	14
4	213	209	Yangquan	Shanxi	189	154	211	224	213	195	117	26	212	19
-117	93	210	Tongling	Anhui	8	52	49	80	226	225	165	84	45	22
-4	207	211	Bayannur	Inner Mongolia	130	205	180	206	174	156	174	119	215	26
15	227	212	Hegang	Heilongjiang	102	223	207	226	163	220	79	71	209	5
-45	168	213	Anshan	Liaoning	213	87	216	173	210	219	220	191	42	20
-10	204	214	Dandong	Liaoning	218	134	206	207	211	191	204	80	127	6
-166	49	215	Yichun	Heilongjiang	195	218	15	123	206	204	209	189	222	33
-54	162	216	Benxi	Liaoning	223	144	221	215	199	196	203	153	59	16
-8	209	217	Fushun	Liaoning	219	203	199	218	215	183	206	206	114	34
-4	214	218	Panjin	Liaoning	178	219	195	220	212	200	211	113	221	15
0	219	219	Shuozhou	Shanxi	154	178	196	180	218	211	180	156	223	18
-10	210	220	Daqing	Heilongjiang	139	210	158	213	225	221	83	83	195	2
3	224	221	Tieling	Liaoning	172	174	201	205	223	222	190	95	213	27
3	225	222	Huainan	Anhui	66	208	215	221	224	223	148	90	211	25
-40	183	223	Fuxin	Liaoning	217	180	191	159	221	175	215	200	210	
-43	181	224	Chaoyang	Liaoning	221	171	217	193	222	194	219	211	175	
-225		225	Qitaihe	Heilongjiang	220	222	197	225	203	226	200	196	225	
0	226	226	Shuangyashan	Heilongjiang	226	226	117	219	187	218	221	222	¬	

APPENDIX: DATA AND METHODOLOGY

Classification and Designation of Cities

Chinese cities can vary dramatically by population size, geography, strategic significance to the national economy, and central government policy influence. Accordingly, 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.

This ranking report focuses on cities classified as prefecture-level cities or above. [109]There is a broad consensus, but no universal agreement, as to which cities sit atop this hierarchy in the first tier. This ranking 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. [110] 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 government policies, and consequently, tend to possess more economic power than the third-tier cities. Therefore, to increase comparability among cities, we rank the first- and second-tier cities as one group and the third-tier cities as a separate group.

In 2015, China had a total of 656 cities, of which 295 are prefecture-level and above.[111] Due to changes in the number of cities over time (cities are continuing to be incorporated) and missing or unavailable data for some cities, we include only 260 cities in this ranking report. We classify these 260 cities into three distinct tiers according to their respective economic development status. There are four first-tier cities, 30 second-tier cities, and 226 third-tier cities.

Data and Variables

Our main sources of data are the 2011, 2013, 2015, and 2016 editions of the China City Statistical Yearbook. Each yearbook publishes data from the year before—e.g., the 2016 edition provides data for 2015. Due to data abnormalities for some cities, we sought out other data sources and adjusted for consistency in those cases (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 per capita gross regional product (GRP) over one- (2014-2015) and five-year (2010-2015) 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 (2012-2015). Existing research suggests that foreign direct investment (FDI) plays an essential role in recent economic development in China.[112] This is evidenced by the fact that China was the world's largest recipient of FDI in 2015.

In addition to the three-year FDI growth measures, our index incorporates a measure that depicts the amount of foreign capital actually used with a FDI/GRP ratio. The FDI/GRP ratio is meant to measure the use of foreign capital for local economic development. Together the two measures reflect each city's economic openness and past economic performance while indicating its future growth potential.[113]

The ninth and final component of the index is the location quotient (LQ) for high value-added industry jobs in 2015. 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. The LQ is a ratio that compares the concentration of a resource or activity (employment in this case) in a defined area to that of a larger area. In this index, a 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 nonstandard data reporting required alternative data sources and adjustments to ensure consistency. Specifically, certain data for the jobs, wages, FDI, and LQ for some cities appeared to be unreliable due to a change in estimation methods or other unidentifiable reasons. Among the affected cities are Lu'an and Suzhou in Anhui Province, Dongguan and Zhongshan in Guangdong Province, Guilin in Guangxi Province, and Fuzhou, Yichun, and Yingtan in Jiangxi Province. As a result, the data for these cities were not comparable across some time periods 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 inappropriate data points for them.

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 260 cities are ranked for the year 2015.

We adopted a weighted z-score approach. Constructing our ranking index by the weighted z-score method involves five steps. First, we calculate the arithmetic mean and the standard deviation for each indicator. Second, we take the value for each indicator and subtract from it the arithmetic mean for that indicator and divide this differential by the standard deviation, yielding a z-score. Third, we assign weightings for each of the nine indicators (indicated in Table 3). In our index, we allocate a greater weighting to the FDI and LQ variables, given that many theoretical and empirical studies suggest that these indicators have played a critical role in driving China's economic development and growth. For each city, multiplying the z-scores for each indicator by the assigned weighting for that indicator yields the weighted z-scores. Fourth, we summed up the weighted 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 226 third-tier cities in another group.

Table 3. Components of the Best-Performing Cities China Index

INDICATOR	WEIGHT
1-year job growth (2014-2015)	0.100
5-year job (2010-2015)	0.100
1-year wage growth (2014-2015)	0.100
5-year wage growth (2010-2015)	0.100
1-year GRP per-capita growth (2014-2015)	0.100
5-year GRP per-capita growth (2010-2015)	0.100
3-year FDI growth (2012-2015)	0.125
FDI/GRP (2015)	0.125
LQ for high value-added industry employment (2015)	0.150

ENDNOTES

[1] Visit the World Bank's website for long-term trend data on China's GDP percentage growth at *http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=CN.*

[2] Guizhou Province Government, "The rate of economic growth of Guizhou has been among the top 3 in the nation for six consecutive years," *http://www.gzgov.gov.cn/xxgk/jbxxgk/sjgz/tjsj/201701/t20170126_693291.html (in Chinese).*

[3] The term Pan-Pearl River Delta (Pan-PRD) covers nine provinces, namely Fujian, Jiangxi, Hunan, Guangdong, Guangxi, Hainan, Sichuan, Guizhou, and Yunnan, and two special administrative regions (SARs) including Hong Kong and Macao.

[4] Magnier, Mark, January 19, 2016, "China's economic growth in 2015 is slowest in 25 years," The Wall Street Journal, *https://www.wsj.com/articles/china-economic-growth-slows-to-6-9-on-year-in-2015-1453169398.*

[5] BBC News, January 20, 2017, "China's economy grows 6.7% in 2016," *http://www.bbc.com/news/business-38686568.*

[6] Ross, John, August 29, 2016, "Why are China and India growing so fast? State investment," HuffPost, *http://www.huffingtonpost.com/john_ross-/china-india-growth_b_11655472.html.*

[7] CCTC.com, February 1, 2016, "Consumption becomes main driving force to China's economy," *http://english.cntv.cn/2016/02/01/VIDEbrLyvkhI7Wjje19bsrYG160201.shtml.*

[8] Liu, S.J., April 11, 2017, "How does Xiongan replicate the miracle of Shenzhen and Pudong?" Chinese Version of Financial Times, *http://www.ftchinese.com/story/001072138?page=1 (in Chinese).*

[9] The Telegraph, April 19, 2017, "All you need to know about China's Xiongan New Area," The Telegraph, *http://www.telegraph.co.uk/news/world/china-watch/society/xiongan-new-area/.*

[10] Seto, Karen C., November 1, 2013, "What should we understand about urbanization in China?" Yale Insights, *http://insights.som.yale.edu/insights/what-should-we-understand-about-urbanization-in-china.*

[11] Lu, G.C., May 23, 2017, "Super Pearl River Delta III: Dongguan, from shoes to robot manufacturing," *http://www.cw.com.tw/article/article.action?id=5082650# (in Chinese).*

[12] Hsu, C.P., February 26, 2017, "The economic transformation of Dongguan," *http://www.chinatimes.com/newspapers/20170226000705-260301 (in Chinese).*

[13] The National Development and Reform Commission of the People's Republic of China, 2016, "The planning for the Yangtze River urban cluster" *http://www.ndrc.gov.cn/zcfb/zcfbghwb/201606/W020160715545638297734.pdf (in Chinese).*

[14] Lin, X.C., April 9, 2017, "Hangzhou takes the lead in GDP growth for two consecutive years among all sub-provincial cities," *http://www.yicai.com/news/5262473.html (in Chinese).*

[15] The term "artificial audio intelligence" is being used particularly for smart-home devices.

[16] Gu, Chaolin and Ian G. Cook (2011). "Beijing: Socialist Chinese Capital and New World City" (in Stephen Hamnett and Dean Forbes Eds.), Planning Asia Cities: Risks and Resilience, London and New York: Routledge, pp. 90-130; "Beijing city master plan (2004-2020)," City Pictorial, *http://user.upla.cn/Uploadfiles/files/2008/0102/32.pdf (in Chinese).*

[17] United Daily News, June 14, 2017, "Beijing has spent more than 250 billion RMB to improve environmental quality in the last five years", *https://udn.com/news/story/7331/2522726 (in Chinese).*

[18] Guizhou Province Government, "The rate of economic growth has been among top 3 in the nation for six consecutive years," *http://www.gzgov.gov.cn/xxgk/jbxxgk/sjgz/tjsj/201701/t20170126_693291.html (in Chinese).*

[19] Mengjie, May 25, 2017, "China launches big data engineering lab for government management," Xinhua Net, *http://news.xinhuanet.com/english/2017-05/25/c_136315022.htm.*

[20] The New York Times, January 7, 2016, "52 places to go in 2016," *https://www.nytimes.com/interactive/2016/01/07/travel/places-to-visit.html.*

[21] For more details about the OBOR initiative, see our 2016 Best-Performing Cities report at *http://www.milkeninstitute.org/publications/view/817.*

[22] Duggan, Briana and Idris Muktar, May 31, 2017, "Nairobi to Mombasa high-speed railway opens," *http://www.cnn.com/2017/05/31/africa/kenya-nairobi-railway/.*

[23] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics

[24] Li Yang, September 29, 2015, "First Chengdu-made Volvos exported to the US," The Telegraph, *http://www.telegraph.co.uk/sponsored/china-watch/business/11897870/first-chengdu-volvos-us-exports.html.*

[25] Kan, Michael, December 4, 2012, "Intel to invest US $1.6 billion in China plant to push mobile chip development," PCWorld, http://www.pcworld.com/article/2855492/intel-to-invest-us16-billion-in-china-plant-to-push-mobile-chip-development.html; Jiang, Sijia, November 30 2015, "After 13 years, China's home-grown Comac ARJ21 passenger jet enters commercial service", South China Morning Post, *http://www.scmp.com/news/china/economy/article/1885086/after-13-years-chinas-home-grown-comac-arj21-passenger-jet-enters.*

[26] Goh, Brenda, May 18 2015, "China approves $40 billion of rail, subway projects to bolster economy," Reuters, *http://economictimes.indiatimes.com/news/international/business/china-approves-40-billion-of-rail-subway-projects-to-bolster-economy/articleshow/47328697.cms.*

[27] Li Yu and Peng Chao, December 21 2015, "World focuses on innovation and entrepreneurship in the heart of Chengdu," The Telegraph, *http://www.telegraph.co.uk/sponsored/china-watch/business/12055699/innovation-and-entrepreneurship-in-Chengdu.html.*

[28] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[29] Tabeta, Shunsuke, May 12, 2017, "China aims to triple rail freight with Europe by 2020," Nikkei Asian Review, *http://asia.nikkei.com/Politics-Economy/Economy/China-aims-to-triple-rail-freight-with-Europe-by-2020.*

[30] The Engineer, May 18, 2017, "Graphene sensor could speed hepatitis diagnosis," The Engineer, *https://www.theengineer.co.uk/graphene-sensor-could-speed-hepatitis-diagnosis/.*

[31] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[32] HKTDC Research, July 23, 2015, "One Belt One Road: Yuxinou Railway Development," HKTDC Research, *http://economists-pick-research.hktdc.com/business-news/article/Research-Articles/One-Belt-One-Road-Yuxinou-Railway-Development/rp/en/1/1X000000/1X0A2XUF.htm.*

[33] PTI, January 9, 2017, "NIIT launches big data training centre in Guiyang City, China," The Economic Times, *http://economictimes.indiatimes.com/industry/services/education/niit-launches-big-data-training-centre-in-guiyang-city-china/articleshow/56425407.cms.*

[34] Harney, Alexandra, October 14, 2015, "China's latest building binge: the education factory," Reuters, *http://www.reuters.com/article/us-china-economy-education-idUSKCN0S82P220151014.*

[35] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[36] Jiang, Sijia, October 13, 2016, "Apple to set up R&D center in Shenzhen, bolster China ties," Reuters, *http://www.reuters.com/article/us-apple-shenzhen-idUSKCN12C0BZ.*

[37] The Economist, April 8, 2017, "Shenzhen is a hothouse of innovation," The Economist, *http://www.economist.com/news/special-report/21720076-copycats-are-out-innovators-are-shenzhen-hothouse-innovation?zid=306&ah=1b164dbd43b0cb27ba0d4c3b12a5e227.*

[38] ibid

[39] ibid

[40] Leng, Sidney, May 23, 2017, "Next stop Belarus: China gets rolling on direct Shenzhen-Minsk freight rail link," South China Morning Post, *http://www.scmp.com/news/china/diplomacy-defence/article/2095276/next-stop-belarus-china-gets-rolling-direct-shenzhen.*

[41] Nylander, Johan, February 21, 2017, "Shenzhen launches US$1.5b startup VC fund," Asia Times, http://www.atimes.com/article/shenzhen-launches-us1-5b-startup-vc-fund/.

[42] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[43] JOC.Com, "Yangtze extension to allow Nanjing to handle ocean-going ships", JOC.Com, *http://www.joc.com/port-news/asian-ports/yangtze-extension-allow-nanjing-handle-ocean-going-ships_20150701.html.*

[44] Schuurman, Roeland and Richard He, 2013, "Economic overview of Jiangsu Province," Netherlands Business Support Office Nanjing, *http://china.nlambassade.org/binaries/content/assets/postenweb/c/china/zaken-doen-in-china/2014/economic-overview-of-jiangsu-province.pdf.*

[45] King, Justin, October 12, 2015, "Ford to spend $1.8B on China research and development," Left Lane, *http://www.leftlanenews.com/ford-to-spend-18b-on-china-research-and-development-89928.html.*

[46] Cadell, Cate, January 19, 2017, "China's Tsinghua Unigroup to build $30 billion Nanjing chip plant," Reuters, *http://www.reuters.com/article/us-tsinghua-plant-idUSKBN1532ED.*

[47] Rickards, James, February 6 2017, "Indicators of a Chinese Collapse," Daily Reckoning, *https://dailyreckoning.com/indicators-chinese-collapse/.*

[48] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[49] Sito, Peggy, April 29 2015, "Financial sector drives growth in Shanghai, Beijing office market," South China Morning Post, *http://www.scmp.com/property/hong-kong-china/article/1778033/financial-sector-drives-growth-shanghai-beijing-office.*

[50] Garenberg, Chaim, March 17, 2017, "Apple is opening two more R&D centers in China," The Verge, *https://www.theverge.com/2017/3/17/14960534/apple-research-centers-china-shanghai-suzhou.*

[51] Goh, Brenda, May 23, 2017, "China, Russia set up wide-body jet firm in new challenge to Boeing, Airbus," Reuters, *http://www.reuters.com/article/us-china-comac-russia-idUSKBN18I0KZ.*

[52] World Shipping Council "Top 50 world container ports", *http://www.worldshipping.org/about-the-industry/global-trade/top-50-world-container-ports.*

[53] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[54] Colarizi, Alessandra, June 10, 2017, "How an overlooked provincial capital became a silk road hub," The Diplomat, *http://thediplomat.com/2017/06/how-an-overlooked-provincial-capital-became-a-silk-road-hub/.*

[55] Zhong Nan and Shi Baoyin, May 18 2015, "CREG digs deep to expand abroad," China Daily, *http://www.chinadaily.com.cn/bizchina/2017-05/18/content_29392321.htm.*

[56] Shepard, Wade, April 5 2016, "Zhengzhou is at the heart of manufacturing in China, from iPhones to vehicles and frozen food," South China Morning Post, *http://www.scmp.com/presented/news/china/topics/go-china-zhengzhou/article/1931472/zhengzhou-heart-manufacturing-china.*

[57] ibid

[58] Air Cargo News, January 19, 2016, "Cargolux confirms $77m investment in new Chinese JV airline," Air Cargo News, *http://www.aircargonews.net/news/airlines/single-view/news/breaking-news-cargolux-confirms-77m-investment-in-new-chinese-airline.html.*

[59] Xinhua, June 1, 2017, "Cargolux confirms $77m investment in new Chinese JV airline," China Daily, *http://www.chinadaily.com.cn/bizchina/2017-06/01/content_29571924.htm.*

[60] Cyranoski, David, May 31, 2017, "Trials of embryonic stem cells to launch in China," Scientific American, *https://www.scientificamerican.com/article/trials-of-embryonic-stem-cells-to-launch-in-china/.*

[61] HKTDC Research, March 3, 2017, "Zhengzhou (Henan) City Information," HKTDC Research, *http://china-trade-research.hktdc.com/business-news/article/Facts-and-Figures/Zhengzhou-Henan-City-Information/ff/en/1/1X000000/1X0A11ZY.htm.*

[62] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[63] HKTDC Research, April 26, 2017, "Kunming (Yunnan) City Information," HKTDC Research, *http://china-trade-research.hktdc.com/business-news/article/Facts-and-Figures/Kunming-Yunnan-City-Information/ff/en/1/1X000000/1X0A18KS.htm.*

[64] Asian Scientist, April 5, 2017, "Plastic-Eating Fungi Found In Rubbish Heap," Asian Scientist, *https://www.asianscientist.com/2017/04/in-the-lab/fungi-plastic-rubbish-heap/.*

[65] Dawn.com, December 2 2016, "China launches direct rail, sea freight service between Kunming and Karachi," Dawn, *https://www.dawn.com/news/1299838.*

[66] Bloomberg, April 11, 2017, "China opens delayed Myanmar oil pipeline to get Mideast crude faster," Bloomberg, *https://www.bloomberg.com/news/articles/2017-04-11/china-opens-delayed-myanmar-oil-link-to-get-mideast-crude-faster.*

[67] Penna, Michele, March 7, 2017, "China Starts Controversial Lao Rail Project," Asia Sentinel, *http://www.asiasentinel.com/econ-business/china-laos-railroad-project/;* Gluckman, Ron, October 27 2014, "Thailand Approves Kunming-Singapore Rail Line," Forbes, *https://www.forbes.com/sites/forbesasia/2014/10/27/thailand-approves-kunming-singapore-rail-line/#10bb894f728a.*

[68] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[69] Nanchang Chinese Communist Party, "Urban Economy," *http://english.nc.gov.cn/aboutnanchang/economy/.*

[70] China Daily, March 13, 2017, "Xiamen to open new freight train service to Moscow," China Daily, *http://www.chinadaily.com.cn/business/2017-04/13/content_28912879.htm.*

[71] Yang, Jng, November 11 2014, "Shenzhen International investing 1b yuan for Nanchang logistics park," South China Morning Post, *http://www.scmp.com/business/china-business/article/1637212/shenzhen-international-investing-1b-yuan-nanchang-logistics.*

[72] HKTDC Research, October 17 2016, "Nanchang (Jiangxi) City information," HKTDC Research, *http://china-trade-research.hktdc.com/business-news/article/Facts-and-Figures/Nanchang-Jiangxi-City-Information/ff/en/1/1X000000/1X0A11W1.htmm.*

[73] Kwong, Man-ki, May 15, 2015, "Luxury hotel chain eyes room for growth with tailor-made services for Chinese travelers," South China Morning Post, *http://www.scmp.com/news/china/money-wealth/article/1795824/luxury-hotel-chain-eyes-room-growth-tailor-made-services.*

[74] Cision PR Newswire, September 29 2016, "The industry of virtual reality alliance launches In Beijing as the only official, government-endorsed VR organization In China," *http://www.prnewswire.com/news-releases/the-industry-of-virtual-reality-alliance-launches-in-beijing-as-the-only-official-government-endorsed-vr-organization-in-china-300336399.html.*

[75] Ground international, April 3, 2017, "Ground international further expands cultural tourism business; signs MOUs to form a joint venture and invest in tourism project," *http://en.acnnewswire.com/press-release/english/35812/ground-international-further-expands-cultural-tourism-business;-signs-mous-to-form-a-joint-venture-and-invest-in-tourism-project;* Yang, Yuan, Clover, Charles and Feng Emily, July 10, 2017, "Dalian Wanda to sell theme park stakes to Sunac China", Financial Times, *https://www.ft.com/content/d3502eaa-652d-11e7-8526-7b38dcaef614.*

[76] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[77] Neil Gough, Cao Li, " As China Reduces Local Spending, Cities Woo Private Investors", New York Times, August 6 2015, *https://www.nytimes.com/2015/08/07/business/international/as-china-reduces-local-spending-cities-woo-private-investors.html*

[78] Forbes, July 31, 2014, "Volkswagen poised to outsell Toyota this year on China growth," Forbes, *https://www.forbes.com/sites/greatspeculations/2014/07/31/volkswagen-poised-to-outsell-toyota-this-year-on-china-growth/#2a08878583d9.*

[79] San Diego Metro, December 30, 2015, "Qualcomm and Haier sign patent license agreement," *http://www.sandiegometro.com/2015/12/daily-business-report-dec-30-2015/.*

[80] Gough, Neal and Cao Li, August 6 2015, "As China reduces local spending, cities woo private investors," New York Times, *https://www.nytimes.com/2015/08/07/business/international/as-china-reduces-local-spending-cities-woo-private-investors.html.*

[81] Malaya, November 24, 2016, "Qingdao to invest in $423M coal plant," Malaya, *http://malaya.com.ph/business-news/business/qingdao-invest-423m-coal-plant.*

[82] PTI, March 28, 2017, "Amazon launches innovation centre in China to support startups," The Economic Times, *http://economictimes.indiatimes.com/news/international/business/amazon-launches-innovation-centre-in-china-to-support-startups/articleshow/57878871.cms.*

[83] Siddiqui, Shoaib Ur Rehman, May 28, 2017, "Airbus starts building first helicopter plant in China," Business Recorder, *http://www.brecorder.com/2017/05/28/350884/airbus-starts-building-first-helicopter-plant-in-china/.*

[84] Port Technology, May 15 2017, "Asia Enters Fully Automated Terminal Era," Port Technology, *https://www.porttechnology.org/news/asia_enters_fully_automated_terminal_era.*

[85] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[86] Liu, L. September 5, 2016, "Nantong: Open, Development, and Emergence," *http://www.js.xinhuanet.com/2016-09/05/c_1119509819.htm.*

[87] Ma, X.B. and X. Zhang, January 1, 2016, "2015 Nantong economic review: GDP was over 600 billion RMB," *http://js.people.com.cn/n2/2016/0101/c360301-27447414.html (in Chinese).*

[88] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[88] Foshan Statistical Bureau, August 17, 2016, "Summary Report of the 2015 Foshan National 1%-Population-Sampling Survey," *http://www.fstjj.gov.cn/tjgb/201608/t20160817_5969762.html (in Chinese).*

[90] Chan, Thomas, September 11, 2015, "Foshan – From Buddhist hill to world manufacturing centre," *https://macauhub.com.mo/feature/foshan-from-buddhist-hill-to-world-manufacturing-centre/.*

[91] Chan, Thomas, September 11, 2015, "Foshan – From Buddhist hill to world manufacturing centre," *https://macauhub.com.mo/feature/foshan-from-buddhist-hill-to-world-manufacturing-centre/.*

[92] Wang, P.Q., "Open and lead: Foshan attempts to be a key participant in global innovation," *http://news.sina.com.cn/c/2017-05-27/doc-ifyfqqyh8658588.shtml (in Chinese).*

[93] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[94] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[95] The New York Times, January 7, 2016, "52 places to go in 2016," *https://www.nytimes.com/interactive/2016/01/07/travel/places-to-visit.html.*

[96] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[97] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[98] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[99] Luohe Economic and Technological Development Zone, *http://www.greendev.org.cn/zone/detail/7272 (in Chinese).*

[100] The People's Government of Luohe, "Introduction to Luohe," *http://www.luohe.gov.cn/sitegroup/root/html/402882c4426675e60142667780760009/20131124010864708.html (in Chinese).*

[101] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[102] Shanghai Daily, June 12, 2017, "Grand Canal remains the pride of Yangzhou in era of Belt and Road," *http://www.shanghaidaily.com/nation/Grand-Canal-remains-the-pride-of-Yangzhou-in-era-of-Belt-and-Road/shdaily.shtml.*

[103] Shanghai Daily, June 12, 2017, "Chinese machinery manufacturer goes global," *http://www.shanghaidaily.com/business/manufacturing/Chinese-machinery-manufacturer-goes-global/shdaily.shtml.*

[104] Fang.com, August 22, 2015, "2015 China Top-10 Livable City Ranking," *http://news.xiantao.fang.com/2015-08-22/17072629.htm.*

[105] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[106] General Office of Hubei Provincial People's Government, "Yichang Hi-tech Industry Development Zone," *http://en.hubei.gov.cn/business/zones/201305/t20130521_450072.shtml.*

[107] Zhu, Lixin and Lihua Zhou, April 12, 2017, "Free trade zones set to boost central areas," China Daily, *http://usa.chinadaily.com.cn/business/2017-04/12/content_28886070.htm.*

[108] National Bureau of Statistics of China (2016). China City Statistical Yearbook—2016. Beijing: China Statistics Press.

[109] These cities include prefecture-level cities, sub-provincial cities, and municipalities directly under the central government.

[110] These cities are so-called "cities with special plans" in Chinese.

[111] National Bureau of Statistics of China, 2015 China City Statistical Yearbook, 2016, p. 3.

[112] See Morrison, Wayne M. (2015). "China's Economic Rise: History, Trends, Challenges, and Implications for the United States," Congressional Research Service, *https://www.fas.org/sgp/crs/row/RL33534.pdf.*

[113] United Nations (2015). World Investment Report 2015. New York and Geneva: United Nations. *http://unctad.org/en/PublicationsLibrary/wir2015_en.pdf.*

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