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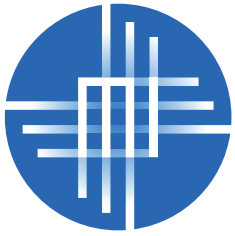
CHINA 2019
BEST-PERFORMING CITIES

THE NATION'S MOST SUCCESSFUL ECONOMIES

PERRY WONG, MICHAEL C.Y. LIN, AND JESSICA JACKSON

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BEST-PERFORMING CITIES

Tianfu Square

Executive Summary

What was the recent economic performance of Chinese cities? What are the key drivers of Chinese urban growth? What areas will become growth engines and centers of activities in the vast landscape of the nation? Since 2015, the Milken Institute's Best-Performing Cities China series has been tracking the economic performance of Chinese cities. Our ranking index for this 2019 version comprises nine indicators—one-year (2016-2017) and five-year (2012-2017) growth for jobs, wages, and gross regional product (GRP) per capita; three-year (2014-2017) foreign direct investment (FDI) growth; FDI/GRP ratio (2017); and the location quotient (LQ) for high value-added industry employment (2017). This index categorizes Chinese cities into large and small groups to yield more meaningful comparisons and insights.

The highlights of the 2019 rankings are as follows
(See Table 1 for the Top 10 rankings for the two groups):

Chengdu in Sichuan province **holds the crown at the top of our ranking in the large cities group**. This is the third time the "Land of Abundance" has risen to the top, and the fifth time it has been ranked in the top 10 large cities group. With an established industry base and extensive new high-tech build-up, Chengdu bears the fruit of the successful "western development" strategy the city embarked upon 20 years ago.

Shenzhen in the Guangdong province secures the second place in the large cities group, dropping from the top rank last year (2018). As China's innovation economy poster child, Shenzhen has reinvented itself from a low-cost gadget manufacturing center to an innovation powerhouse. The city is the birthplace of a new generation of telecom products and the tech-entrepreneur hub of China. Most recently, the Chinese government has deeded Shenzhen with the mission of "building a model city" for the world. **Beijing**, the nation's capital and a leader in developing the Tongzhou district, which will become the home to the Beijing municipal government, captures the third spot with the support of an inflow of FDI. **Lanzhou**, an ancient outpost and a modern gateway city to the West, takes the fourth place. Infrastructure building is driving the regional economy as the One Belt, One Road Initiative extends via there to Central Asia. **Zhengzhou**, the central geographic location in the nation, dropped one spot from 2018, ranking fifth. This "iPhone City" is not only a production center for the international markets, but also a supplier for increasingly affluent Chinese consumers.

Xi'an in Shaanxi province and **Guiyang** in Guizhou province are ranked sixth and seventh, respectively. Xi'an advanced three spots from last year's rankings, while Guiyang declined by two spots. Both cities are situated in the western part of China, with Xi'an in the northwest and Guiyang in the southwest. Both cities are experiencing an increase in infrastructure building. While Xi'an is upgrading its industry base and transportation infrastructure, Guiyang is building the next

generation of energy supply, transportation, and electronic storage from the ground up. The rest of the top 10 cities group is **Changchun** in Jilin province (eighth), **Wuhan** in Hubei province (ninth), and **Xiamen** in Fujian province (tenth). Changchun has declined two spots from 2018. With the recent slowing of the transportation sector, the city's automakers may generate less steam powering the city economy, despite healthy demand for high-speed rail carts and engines production. The ongoing industry restructuring in the northeast will continue to impact the city's performance. Wuhan, a traditional industrial powerhouse in central China, advances seven spots this year. High-tech industries, such as chip-making and biomedicine, continue to add growth potential to the city's economy. Xiamen is expanding quickly to make up "lost time" in the last decade and a half. The city was designated as an "economic development zone," such as Shenzhen in 1979,[1] but anticipated growth failed to materialize at the time. As a coastal city, Xiamen's economic development focus is the integration of air-ground transportation/shipment hubs and related high-tech components.

Dongguan in the Guangdong province **takes the number one spot for the second year in a row among the small cities group**. The strong showing in the 2018 and 2019 rankings demonstrate the city's economic resilience. In fewer than five years, Dongguan has turned from being labeled as the "Ghost Mall" city in 2012 to become a leading robotic production and artificial intelligence (AI) development center.

Nantong in the Jiangsu province takes the second spot. The location of the city has been its most significant asset as the nexus of both a seaport and river port, while also connecting the powerhouse Shanghai and the technology center Suzhou. Industrial activities and commercial services are the key pillars of the regional economy. **Zhuhai** in the Pearl River Delta cluster ranks third, as the backyard to Asia's premium gaming center, Macao. Leisure, retirement, and business services industries define this growing city. **Taizhou** in the Jiangsu province lands at the fourth spot. The city has been on the top 10 list since the inception of this report series. Ranked at fifth and sixth are **Dazhou** in the Sichuan province, and **Yingtan** in Jiangxi, respectively. It is the first time Dazhou and Yingtan have ranked in the top 10 list. Both cities' have agriculture- and mining-based economies which are evolving into modern manufacturing and food processing centers. They are both also river transportation hubs in their respective regions. **Luohe** in the Henan province ranks at the seventh spot,- and is the only agricultural-based economy that has appeared on the top 10 ranking two times. Ranked at the eighth spot is **Anshun** in the Guizhou province. Both national and local policies and a renewed drive to add technologies into traditional beverage production elevate its economic performance. **Suzhou** in Jiangsu province is placed at the ninth spot. As the first Science and Technology Park joint-venture between the city and the Singaporean government, Suzhou has been the technology powerhouse in the Yangtze River Economic cluster. **Maanshan** in the Anhui province rounds off our top 10 list. The city has emerged from an old steel industry base to become a newer, more diversified manufacturing powerhouse. Its proximity to the city of Nanjing, the capital of the Jiangsu province, provides the city with strong R&D support.

Table 1. Best-Performing Cities China 2019

RANK: FIRST- AND SECOND-TIER CITIES

1. Chengdu, Sichuan (四川省成都市)

2. Shenzhen, Guangdong (广东省深圳市)

3. Beijing (北京市)

4. Lanzhou, Gansu (甘肃省兰州市)

5. Zhengzhou, Henan (河南省郑州市)

6. Xi'an, Shaanxi (陕西省西安市)

7. Guiyang, Guizhou (贵州省贵阳市)

8. Changchun, Jilin (吉林省长春市)

9. Wuhan, Hubei (湖北省武汉市)

10. Xiamen, Fujian (福建省厦门市)

RANK: THIRD-TIER CITIES

1. Dongguan, Guangdong (广东省东莞市)

2. Nantong, Jiangsu (江苏省南通市)

3. Zhuhai, Guangdong (广东省珠海市)

4. Taizhou, Jiangsu (江苏省泰州市)

5. Dazhou, Sichuan (四川省达州市)

6. Yingtan, Jiangxi (江西省鹰潭市)

7. Luohe, Henan (河南省漯河市)

8. Anshun, Guizhou (贵州省安顺市)

9. Suzhou, Jiangsu (江苏省苏州市)

10. Maanshan, Anhui (安徽省马鞍山市)

Introduction

The Chinese economy is transitioning from an export-driven growth model to one dominated by domestic consumption. Meanwhile, China is reinventing itself from a labor-intensive global manufacturing base to an innovator offering higher value-added activities such as designs and financial services. In this process, public policy and fixed investment still matter greatly. However, human capital, innovation, and ingenuity are pivotal elements for building a prosperous service and consumption-driven economy. To trace and map China's economic changes, the Milken Institute, beginning in 2015, has published **five editions of the Best-Performing Cities (BPC) China ranking**. Our 2019 BPC China ranking follows the structure of previous reports and uses the most recent official data to construct a composite index for tracking the economic performance of Chinese cities.
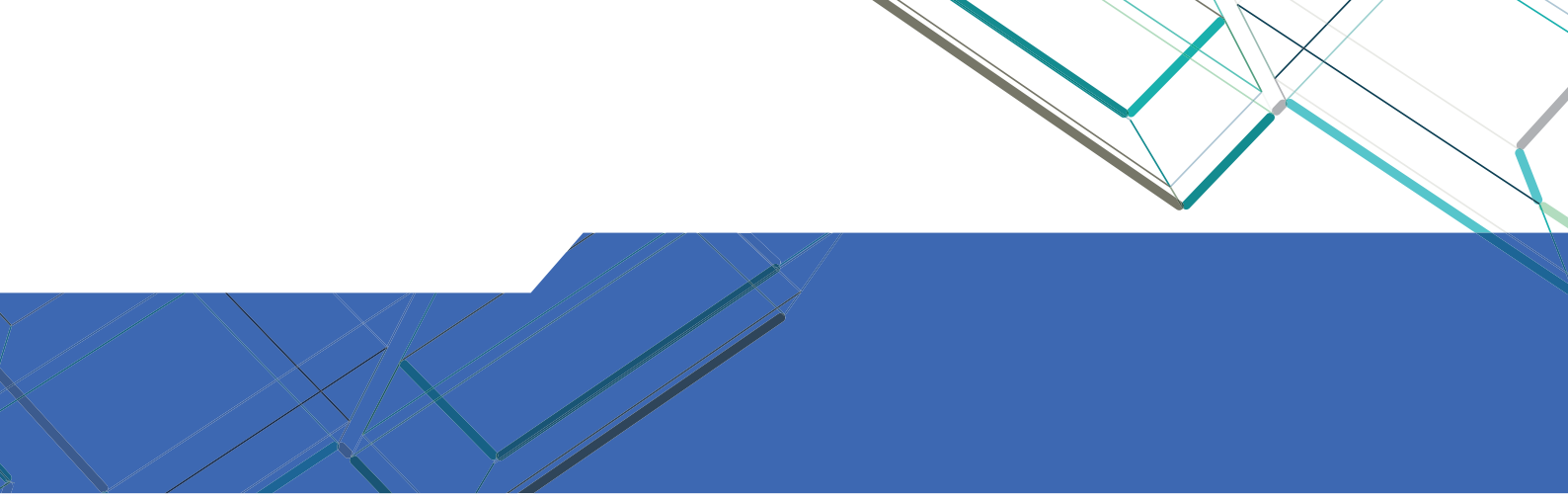
The main goals of these rankings are threefold:

- First, they provide policymakers, planners, practitioners, investors, and academics with a tool to monitor and evaluate the economic performance of Chinese cities.
- Second, they provide perspectives for Chinese cities in making improvements.
- Third, they provide 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 2017: one- and five-year employment 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 employment. 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 first- and second-tier cities, while the small city group comprises third-tier cities. The large and small city groups are ranked separately to allow for more meaningful comparisons.

For the large city group, Chengdu holds the crown. This is the third time the prospering city places at the top in our rankings. Located in the western part of China, Chengdu (together with Chongqing) is one of the twin engines powering the economy of the Sichuan province, with economic opportunity spilling over into the Great Western region of China. Chengdu has been a manufacturing center for decades, specializing in defense-related and equipment production. Today, Chengdu is one of the top five most populous cities in China, and has expanded its economy with a diverse, innovative industry base including transportation equipment production, biotech and life science R&D, and consumer electronics products.[2]

Shenzhen, "the Silicon Valley of China," takes the second spot. As China's continued effort on innovation deepens, the city is a thriving icon and a leading innovation center across the country. The recent development of the Greater Bay Area will further amplify the city's economic influence on regional development. The nation's capital and a lead in developing the Xiong'an New Area and Tongzhou district, Beijing captures the third spot. Lanzhou, as the gateway of the One Belt, One Road Initiative (BRI) to the west, ranks fourth. BRI has brought a windfall of economic benefits and more

significant opportunity to this ancient outpost. Zhengzhou, a central transportation hub of the nation and a rising global consumer electronics maker, rounds out the top five on the list. Xi'an, which ranked ninth in 2018, moves up three places to take the number six spot, followed by Guiyang (seventh), Changchun (eighth), Wuhan (ninth), and Xiamen (10th).

As for the third-tier cities, Dongguan stays at the top spot. It is the first time in our ranking since 2015 that a third-tier city claims the top spot for two years in a row. Dongguan's strong showing validates its strength and dynamism as a rising high-tech city. Although faced with an economic shock when lower value-added factories fled the city a few years ago, Dongguan has reinvented itself by cultivating high value-added industries such as robotics and AI. Shenzhen's economic spill-overs have also had a positive impact on Dongguan. Zhuhai in the Pearl River Delta economic cluster ranks third. It seems the Greater Bay Area economic integration plan has already brought economic benefit through a spill-over effect to the basin economies. Ranked second is Nantong in Jiangsu province. This ancient seaport is a nexus linking China's financial center of Shanghai and the rising tech hub of Suzhou. In the Yangtze River Delta economic cluster, Taizhou in Jiangsu province places fourth in this edition of BPC China. The city has consistently ranked in the top bracket since 2015. Suzhou, which is part of the Yangtze River Delta Economic Belt, ranks ninth.

Dazhou in Sichuan province claims the fifth spot for the first time this year. The city has been moving up in our rankings. Dazhou has transformed from an agriculture economy to a modern mining and manufacturing town. Yingtan in Jiangxi province takes the sixth spot, marking the first time Yingtan enters the top 10 list. The city, with a population of 1.3 million, is a transportation hub bordering Fujian and Zhejiang provinces, which are two prospering provincial economies in China. Logistics, copper mining, and manufacturing are essential industries to the city. Luohe in Henan province takes the seventh place. It is the second time the city has appeared on our top 10 list (seventh in 2017). Among the top 10 cities, most of their regional economies have a significant high-tech presence, particularly in the consumer electronics industry. Luohe is the only city in the ranking where agriculture production and food processing are the primary industries driving the economy. Ranked at the eighth place is Anshun in Guizhou province, moving up two places from last year. This semi-rural region has taken steps to expand the local industry supply chain and transform its old manufacturing base by upgrading its labor pool and manufacturing process. Maanshan in Anhui province had made the top 10 ranking for the first time, claiming the last spot. The city is the steel capital of China, and most of the workforce and business are tied to the steel industries. This capital-heavy industry town is in the process of upgrading its industry base.

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Map
First- and Second-Tier Cities

Changchun, Jilin
(吉林省长春市) 8

Beijing
(北京市) 3

Lanzhou, Gansu
(甘肃省兰州市) 4

Zhengzhou, Henan
(河南省郑州市) 5

6

Xi'an, Shaanxi
(陕西省西安市)

Chengdu, Sichuan
(四川省成都市) 1

Wuhan, Hubei
(湖北省武汉市) 9

7

Guiyang, Guizhou
(贵州省贵阳市)

10 Xiamen, Fujian
(福建省厦门市)

2 Shenzhen, Guangdong
(广东省深圳市)

Source: Milken Institute

Map:
Third-Tier Cities

Luohe, Henan
(河南省漯河市)

Taizhou, Jiangsu
(江苏省泰州市)

Nantong, Jiangsu
(江苏省南通市)

Dazhou, Sichuan
(四川省达州市)

Maanshan, Anhui
(安徽省马鞍山市)

Suzhou, Jiangsu
(江苏省苏州市)

Yingtan, Jiangxi
(江西省鹰潭市)

Anshun, Guizhou
(贵州省安顺市)

Dongguan, Guangdong
(广东省东莞市)

Zhuhai, Guangdong
(广东省珠海市)
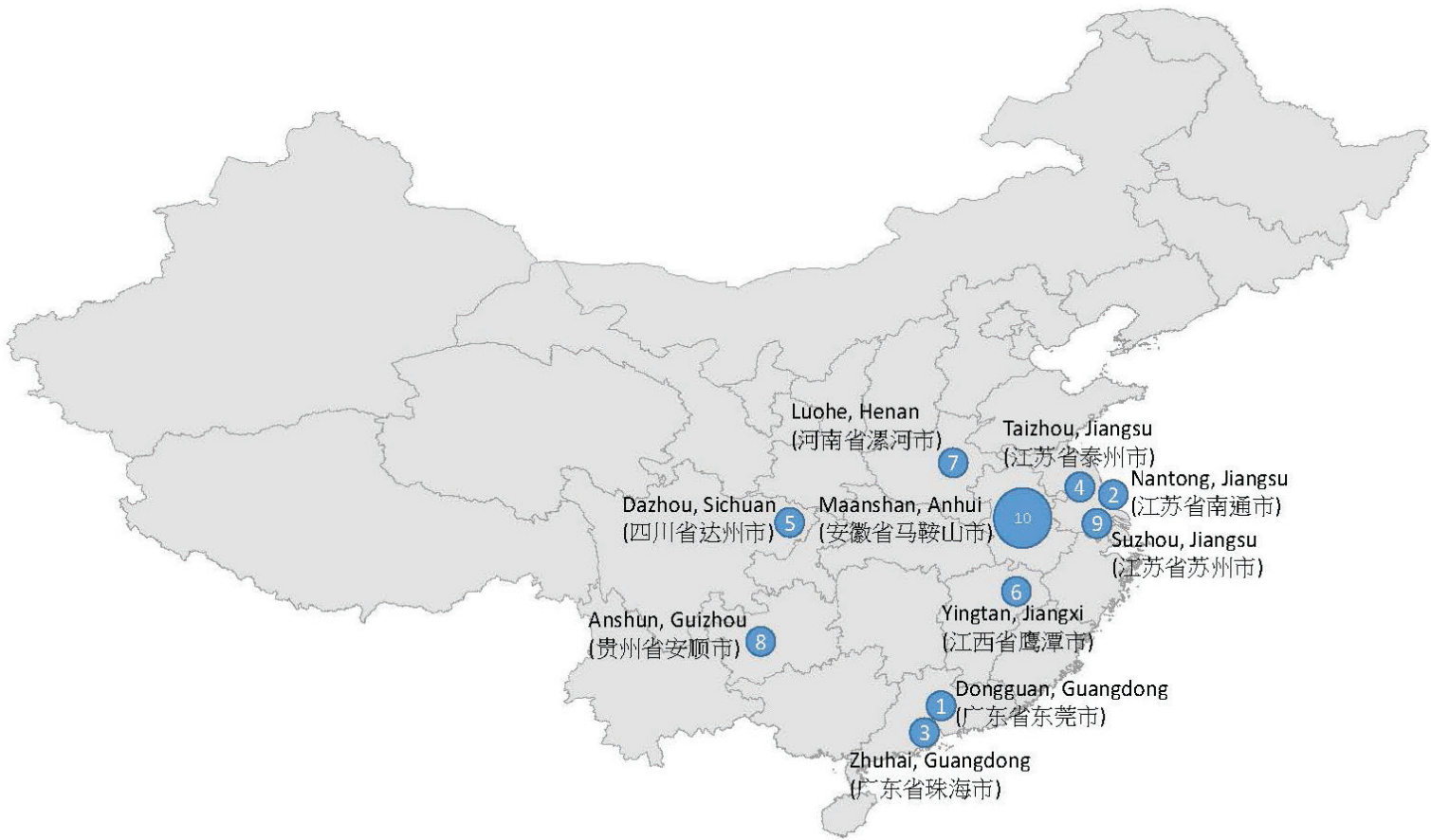
Source: Milken Institute

BEST-PERFORMING CITIES

Chengdu, Jinjiang

Overview: China's Economic Development

China continues its transition from an export-driven, manufacturing-based economy to a consumption and innovation-oriented one. In the last several years, efforts to trim industry overcapacity and deleveraging have cooled the domestic economy from double-digit economic growth rates to the 6 percent-6.5 percent range. But these policies are not the only factors at play. There is a consensus among policymakers, economists, and market players that China's long-term growth is shifting into lower gear due to its maturing economy, lower productivity, and aging population. For instance, China's working-age population will shrink 18 percent by 2050.[3] Concurrently, China's labor productivity growth rate shrank from 9 percent in 2009 to 6.3 percent in 2018, and the downward trend will likely continue.[4] This slower long-term growth reflects an ambition to focus on quality rather than quantity of growth, a goal that will likely benefit long-term prosperity but add to short-term policy challenges and uncertainty.

This economic journey is nothing short of remarkable. In its first 30 years of economic development and opening (1978-2008), China first focused on turning a near-bankrupt economy to a sustainable, expanding one with development concentration in coastal regions. Its development partners overseas were Hong Kong, Japan, and Taiwan. Then China became known as the world's low-cost manufacturing base for inexpensive products, such as clothing, sporting goods, and consumer electronics. In 2009, at the beginning of the second 30 years of economic development, however, China has focused on a technology- and innovation-based approach as the country's future development direction for the next phase of growth. Policies that aim to promote homegrown innovation and technology capacity, more aggressive opening-up of its financial market, and supply-side reform took center stage. Fast forward to 2018, and China's manufacturing output as a percentage of national GDP declined to 29 percent from 32 percent in 2008.[5] China has turned the corner, shifting from a manufacturing-export driven economy to a service-consumption led one. Services, innovation, technology (e.g., 5G), smart manufacturing, semiconductor, and robotics have become the vehicles for China to reinvent itself from C2C (Copy to China) to CFC (Copy from China).

In addition to the domestic market reform agenda—such as Supply-Side Structural Reform (SSSR) and industrial upgrade, which targets industrial base economy—the strategy for China's future development lays out paths for the Chinese economy to adapt to global markets. Initiatives such as the One Belt, One Road, Asia Infrastructure Investment Bank (AIIB), and the China enterprises "going out" policies aim to integrate China's economy with the global markets. On the capital market front, key initiatives such as Shenzhen-Hong Kong/Shanghai-Hong Kong Stock Connect allowing foreign asset management firms to have sole ownership in China are forms of China's internationalization of its currency, services, and production. In November 2018, China's Nasdaq-style Exchange, which aims to fund the nation's tech startups, launched. The impact of these policies and initiatives in global markets is yet to be quantified, but the implementation of these policies seems to have changed the Chinese economy at the micro and macro level. Noticeably, China has leveraged these policies and actions to transform parts of the country that were look-overs during the first 30 years of economic opening and reform. Regions such as the deep southwestern and western part of China have been rapidly urbanized and industrialized, and cities such as Guiyan and Lanzhou are transforming their industrial structure and modernizing their urban development. With a heavy focus on environmental concerns in planning stages, the new industrial and urban designs usually incorporate clean energy power generation and ground transportation.[6]

IMPACT OF TRADE WAR AND STRUCTURAL CHALLENGES IN CHINA (FROM A DEVELOPMENT PERSPECTIVE)

The year 2018 was a watershed moment for China, as the drastic escalation of the US-China trade war presented a significant risk to the Chinese economy. Full-year growth in 2018 was a solid 6.8 percent on the back of policy support and front-running of trades, but as bilateral negotiation between the US and China drags on, the rising uncertainties associated with trade and economic outlook have taken a visible toll on investor sentiment. Perhaps more importantly, the trade war calls into question whether China's innovation-focused industrial policy can successfully lead to an upgrade of the country's manufacturing capacity. Huawei, a globally notable Chinese telecom giant, was dealt a severe blow by the US government's blacklisting and trade ban. Not only was the firm's overseas market restricted, but also Huawei can no longer run on American-designed operating systems and computer chips, which are crucial to the telecom company.[7] Huawei is only the tip of an iceberg that signals what could be coming for the entire Chinese technology manufacturing base. Though it is doubtful that the actions of the US government will derail China's plan, the blacklist and trade ban can set roadblocks ahead, which could slow progress. Regions such as Shenzhen, Suzhou, and other areas with heavy tech presence might anticipate a negative economic impact in the short term.

In response to the trade restriction and blacklisting, there are signs that both regional and local governments can leverage resources to help alleviate the impact of a potentially worsening operating environment. Regional and local government can help by reducing rental costs and local tax rates to mitigate damages and other burdens, at least in the short term. Shenzhen municipal government recently proposed doing just that with a plan to provide a tax break—a wage tax reduction from 45 percent to 15 percent to all talent working in the city, in an attempt to retain workers and reduce the wage burden on corporations.[8] This policy may not solve the trade ban and blacklist burden on the Chinese technology sector, but it does offer incentives for talent to stay in the city while allowing corporations to reallocate resources to realign with the market. In the short term, this type of policy seems to help alleviate stress caused by the trade war and promote competitiveness. For a longer-term solution, however, regional and local government can do very little beyond the boundary of a city's municipality.

On other policy fronts, the trade war comes at a time that could not be more disruptive to China's many spearheaded reforms. For instance, the Chinese government's policy has been to push deleveraging to pair debt to GDP/balance sheet since 2016. It is a critical exercise for policymakers to attempt to realign debt—particularly local government debt—to the current lower growth scenario. However, the disruptive trade war might force the government to reverse the policy.[9] As regional job market growth has become sluggish, and is even declining in some cases, the government needs to consider means to incentivize business and employment growth. This type of policy will most likely exacerbate the debt burden of the local and regional governments. As debt level rises, China's financial system may be at risk, and the real sector of the economy can have a challenging time financing business operations.

REGIONAL DEVELOPMENT

After three decades of opening and reform, China's coastal regions and a selective few larger cities have become affluent, yet regional growth divergence continues. Inequality and regional growth disparity have increased sharply. In 2018, for example, Shanghai's per capita income was US$20,000, while Yunnan was US$5,500.[10] In the last two national plans (the 12th and the 13th Five Year Plan) the Central government had taken steps to declare "wars" on pollution, poverty, and regional/rural-urban economic disparities. Policies from the central and regional governments focus on the importance of coordinated regional development by strengthening regional clusters, including the Pearl River Delta Economic Zone, the Yangtze River Delta Economic Belt, the Diamond Economic Zone, and the Jing-Jin-Ji mega-region as growth engines for economic development. The regional nodes in these various clusters are now linking with BRI. Within the mega clusters, principal infrastructure building, industrial production, and centers of commerce are designated to coordinate smaller cities with the central megacities such as Shanghai, Chongqing, Chengdu, and Zhengzhou. It is an apparent attempt by the government to mitigate overcrowding in some of the megacities, such as Shanghai or Beijing. Furthermore, by spreading development beyond coastal regions and large central cities, it is expected that economic development in smaller cities and towns can facilitate additional growth. The nation can leverage comparative advantages of various regional economies to facilitate both the national and regional development of China. These policies are expected to bring equitable economic opportunity to the vast landscape of China.

Notably, several megacity clusters have emerged in China in the last several years. The Jing-Jin-Ji mega-region consists of Beijing, Tianjin, and Hebei Province. The development of this mega-region is intended to reduce the congestion in Beijing and Tianjin and help enhance less developed areas within the cluster. In addition to the development of the Xiong'an New Area, other parts of the Jing-Jin-Ji mega-region also continue to grow. For example, the Wuqing District in Tianjin was once an agricultural village bordering Beijing and Hebei province. In recent years, its locational advantage, convenient transportation links, and low land costs made Wuqing a logistics center that has attracted major players in e-commerce; Amazon and Vipshop, a Chinese e-commerce company, built warehouses there. The first NBA-themed lifestyle center, which opened on April 25, 2018, is also located in Wuqing.[11]

Within the Pearl River Delta Economic Zone, a more recent development is the Greater Bay Area initiative. This initiative intends to link nine cities across Guangdong province and the two Special Administrative Regions (Hong Kong and Macau) to form an urban cluster. The Chinese bay area intends to mimic similar areas in New York, San Francisco, and Tokyo, as the Chinese government envisions a technological innovation hub that can drive China's economic growth. This grand plan is designed to pair the highly internationalized and mature economies of Hong Kong and Macau with regions and cities that have abundant spatial development opportunities in Guangdong province. Hong Kong-Shenzhen-Guangzhou serves as the triad of anchor cities that will lead in a 69-million population strong, consumer-based economy in southern China. If the plan is successful, it will combine a global money center with an emerging technology base and numerous research facilities to form a super innovative cluster.

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Methodology

The Milken Institute Best-Performing Cities China index sorts 262 Chinese cities into two groups: the largest-cities group, with 34 first- and second-tier cities; and the small- and medium-sized group, with 228 third-tier cities.[12] The two groups are ranked separately based on economic performance. The index measures growth in employment, wages, and per-capita gross regional product (GRP) over one-year (2016-2017) and five-year (2012-2017) periods. The one-year measurement is intended to capture the most recent economic dynamics, while the five-year measurement attempts to adjust for extreme variations in the recent business cycle. Moreover, this index takes into account the actual use of FDI during the 2014-2017 period and its share over GRP in 2017. In addition, it incorporates the location quotient (LQ) for high value-added industry employment in 2017. High value-added industry is typically considered a major driving force for the future growth of a local economy and is defined as the sectors of manufacturing; transport, storage and post; information transmission, computer services, and software; financial intermediation; real estate; and leasing and business services. Table 2 lists the nine indicators used to construct the index and their respective weights. Recent theoretical and empirical work suggests both FDI and high value-added industries play critical roles in bolstering China's economy, and hence these indicators are more heavily weighted in this index (Table 2).[13]

Table 2. Components of the Best-Performing Cities China Index

Indicator	Weight
1-year job growth (2016-2017)	0.100
5-year job growth (2012-2017)	0.100
1-year wage growth (2016-2017)	0.100
5-year wage growth (2012-2017)	0.100
1-year GRP per-capita growth (2016-2017)	0.100
5-year GRP per-capita growth (2012-2017)	0.100
3-year FDI growth (2014-2017)	0.125
FDI/GRP (2017)	0.125
LQ for high value-added industry employment (2017)	0.150

The main data for this report come from the 2013, 2015, 2017, and 2018 editions of the China City Statistical Yearbook. All data are in a one-year lag (i.e., the 2018 edition reports 2017 data). The construction of the database used in the analysis for this year's ranking is particularly challenging. For some cities, there were discrepancies and abnormalities in the data. Some abnormalities are due to a change in counting methods or reclassification resulting from policy changes, while the cause of others cannot be identified. It appears the metrics used to calculate both the GRP and GRP per-capita values in the 2018 China City Statistical Yearbook differ from those reported in earlier editions. These discrepancies present challenges for calculating the over-time growth rates. To address the issues above, we replaced some data values with ones found in various local statistical yearbooks and other publications. In some cases, we used our own estimates based on historical trends and institutional knowledge.

The Milken Institute adopts a method (based on weighted z-scores) that differs from the method used for our Best-Performing Cities series for the United States and Asia, given that this alternative method yields more consistent ranking results that better describe the economic development of Chinese cities for our study periods specifically. For more details regarding data and methodology, see the Appendix on page 43.

BEST-PERFORMING CITIES

Shenzhen

Report Findings

TOP 10 BEST-PERFORMING CITIES
(First- and Second-Tier Cities)

#1   CHENGDU, SICHUAN

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	2nd	1st	3-Year FDI Growth (2014-2017)	18th
Wage Growth	18th	4th	FDI/GRP (2017)	4th
GRP Per-Capita Growth	3rd	15th	LQ for High Value-Added Industry (2017)	21st

Chengdu, a constant in Best-Performing Cities China's Top 10 list of first- and second-tier cities, comes in first this year. Chengdu is the provincial capital of Sichuan province, with a registered population of around 14.4 million in 2017.[14] Manufacturing is a mainstay for Chengdu, employing approximately 1.6 million people in 2017.[15]

The city's geographic location inside the Diamond Economic Zone makes it an important gateway for the southwest region. Investments in a 10,000-kilometer Chengdu-Europe Express Rail will help improve China's logistical connection with the western world supporting the One Belt, One Road Initiative.[16] The railway began in 2013, and recently trips have reached a high level of efficiency establishing Chengdu as an international port and magnet for investment, benefiting surrounding Sichuan cities.[17] Overall increases in investment and enhancing high-speed-rail, both in intra-province and inter-province links, are increasing interest in building manufacturing and technology parks in Sichuan.[18] These activities likely contributed to Chengdu's number four ranking in the FDI/GRP category.

While experiencing such substantial economic growth, Chengdu is taking measures to protect the environment to prevent some of the congestion, pollution, and air quality issues faced by large eastern Chinese cities. Preserving the environment is especially important to Chengdu because the city benefits from a healthy amount of ecotourism and invests in the development of attractions, such as Flower Town, for that industry.[19] The city has participated in partnerships with foreign cities aimed at exchanging knowledge and resources to help protect city green space and make progress on sustainability.[20] Chengdu gained attention from the state of California for its efforts to curb pollution and climate change, earning a visit in 2017 from then-governor Jerry Brown.[21] Chengdu remains forward thinking in this regard and others, making prospects for sustainable growth in Chengdu likely.

#2   SHENZHEN, GUANGDONG

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	12th	2nd	3-Year FDI Growth (2014-2017)	12th
Wage Growth	10th	1st	FDI/GRP (2017)	21st
GRP Per-Capita Growth	18th	16th	LQ for High Value-Added Industry (2017)	1st

Shenzhen, in the Guangdong province, takes the number two spot on this year's ranking, a sign of the continuing strength of the Pearl River Delta Economic Zone and the emerging Greater Bay Area.

With a population of around 12.5 million in 2017, up from 11.9 million in 2016, the city continues to grow.[22] Employment and wage growth for the five years ending in 2017 has helped to anchor Shenzhen's performance (coming in second and first, respectively).

It is no surprise that "China's Silicon Valley" comes in first for concentration of high value-added industry as Shenzhen continues its transformation to an innovation-based economy. However, as short-term growth figures taper off, Shenzhen is looking for new ways to maintain its edge in innovation. Recently, high-tech company giants Huawei Technologies and Tencent Holdings established the government-backed Shenzhen Industrial Internet Union with a mission of driving new technology and business model development for initiatives related to the industrial internet in the city.[23] The goal of developing the industrial internet is to help businesses more easily take advantage of technology such as next-generation wireless networks, big data, AI, and the Internet of Things. Ten companies, including Huawei Technologies and foreign firm Foxconn, initially joined the union. The union aims to foster innovation, cooperation, and quicker adaptation to a new era of internet connectivity and utilization in both business and consumer applications. However, alongside an escalating trade war, some of these firms found themselves on a US government trading blacklist. As such, it is undetermined how effective the union can be in pushing the envelope in AI and 5G applications and advancing Shenzhen's position as a leader in creating leading products and services. Nonetheless, the city has indeed demonstrated it has a strong technology base to foster such an alliance.[24]

Shenzhen also announced it will extend tax breaks to top overseas and local talent to help maintain momentum in its innovation-based economy. The plan cuts income tax to 15 percent of annual wage income for talent in the city, and the city plans to use its operating income to make up for the decrease in tax revenues.[25] The city has not yet defined the requirements to be considered for the tax break, nor the definition of talent, but the goal is to retain and attract professionals in electronics and telecommunications.

Shenzhen's opening-up policy has improved the city's infrastructure over the last 40 years. In acknowledgment of this success, President Xi Jinping endorsed a special status that will allow Shenzhen to carry out bolder reforms and help bolster its innovation-focused development so it can become a model for other mainland cities.[26] The new status likely marks a shift away from Hong Kong's marketplace as tensions rise in the special administrative region located directly next to Shenzhen. To that end, Shenzhen will likely need to reinvent its development blueprint to be a technology-capital dual center. With this newly proposed agenda, Shenzhen will likely see even more support from the central government.

#3 BEIJING

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	8th	19th	3-Year FDI Growth (2014-2017)	1st
Wage Growth	5th	18th	FDI/GRP (2017)	2nd
GRP Per-Capita Growth	20th	18th	LQ for High Value-Added Industry (2017)	8th

Beijing rises nine places to rank third. The capital city is part of the Jing-Jin-Ji mega-region in northeast China, along with the Tianjin and Hebei province, and had a population of roughly 21.7 million in 2017.[27] The city's performance was anchored by FDI as it ranked number one in three-year FDI growth and number two in the FDI/GDP category.

A key contributing factor to the city's FDI growth is the development of the Tongzhou district. The district is an eastern suburb of Beijing and was designated to be the capital's sub-city center in which the municipal government, top hospitals, and major universities such as Renmin University of China have already been and will be relocated. The designation has triggered an influx of FDI and real estate investment into the district. For instance, Universal Studios Beijing announced a $3.3-billion, 1,000-acre project in 2015, which includes a theme park, a shopping center, and hotels.[28] The project has since increased its budget to $6.5 billion and is said to be opening in 2020.[29] The development of the district has driven up local housing prices, and to cool down the overheated housing market, the district government has imposed some restrictions for property buyers.[30] Despite this, foreign investors have become increasingly interested in Beijing's property market as the US dollar appreciates and domestic financial channels tighten.[31] Real estate transactions are expected to reach a record high in 2019, with investors drawn to IT firm growth in the area.[32] In 2018, China moved to increase the openness of its market by easing investment curbs on several sectors, including agriculture, automotive and heavy industries, and banking.[33]

Beijing's tech hub plays a major role in China's reputation as a leader in the tech space. Nearly 9,000 high-tech firms are located in the city, including some of the largest internet firms.[34] Beijing's Zhongguancun, in Haidian District, is not only home to tech giants like Baidu and Sina Corp. but also to a government-backed startup incubation zone. The area receives talent and R&D support from more than 40 local universities, including Peking and Tsinghua Universities, as well as over 200 research institutes and national-level laboratories.[35] Investments in telecommunications, media, and technology (TMT) in 2017 contributed to Beijing's economic performance. According to a PricewaterhouseCoopers Zhong Tian LLP report, Beijing received significantly more TMT investments in the first half of 2017 than any other region, including Shanghai and Shenzhen.[36] Zhongguancun and its surrounding areas are now hubs for AI labs such as Microsoft Research Asia.

Beijing is also home to the major semiconductor display supplier BOE, semiconductor chip and DRAM supplier Tsinghua Unigroup, and one of the world's leading smartphone manufacturers Xiaomi. Despite this, manufacturing jobs have been steadily decreasing following Beijing's strategy to move away from the industry to focus on higher value-added industries. To transform its industrial compositions and improve air quality, the city has been shutting down its coal-fired power plants. In March 2017, Beijing shut down its last coal-fired power plant and claimed that it is the first city in China to use cleaner energy, such as natural gas, for its entire electricity generation.[37]

#4 LANZHOU, GANSU

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	1st	4th	3-Year FDI Growth (2014-2017)	2nd
Wage Growth	1st	11th	FDI/GRP (2017)	19th
GRP Per-Capita Growth	16th	9th	LQ for High Value-Added Industry (2017)	30th

Lanzhou in Gansu province made its Top 10 debut on our list at number four. The city topped the list in both one-year employment and wage growth categories, showing strong short-term growth. Lanzhou also came in second in three-year FDI growth and fourth in five-year employment growth.

Lanzhou is the capital of the Gansu province, with a registered population of 3.26 million in 2017.[38] The city was once called "The City in the Sands,-" and was a pivotal point on ancient China's Silk Road.

Today, it is a logistics center in China's One Belt, One Road Initiative. In recent years, the city has been leveraging the initiative by hosting trade shows and enhancing connectivity with the Belt and Road countries. In 2017, the city held its 23rd Lanzhou Investment and Trade Fair and signed 164 investment projects totaling more than RMB 111.4 billion.[39] As for trade with other countries, the city opened its first rail and cargo service in 2016 to south Asia, with Kathmandu, Nepal as its destination. In October 2018, Lanzhou opened its second route from Lanzhou to Islamabad, Pakistan. Boosted by the rail links, trade between Gansu Province and Belt and Road countries from January to March 2018 totaled US$713 million.[40] In July 2019, the first high-speed rail route on the Silk Road connecting Lanzhou to Baoji, Shanxi opened and further expedited freight delivery between Lanzhou and European countries.[41]

In addition to growing international trade, Lanzhou is also known for its tourism and industrial (petrochemical in particular) sectors. Lanzhou received 3.9 million tourists in the first half of 2018, which was a 14.03 percent increase from the first half of 2017.[42] During the National Day holiday period, October 1–7, 2018, Lanzhou drew in 3.18 million tourists, which generated 2.85 billion yuan in tourism revenue.[43] Five Springs Park, the Botanic Garden, and the White Pagoda Park were among the major draws for National Day holiday tourists. The city has recently been diversifying its industries, and the city's growth has been deliberate. Lanzhou New Area has been a major development project for the Chinese government since 2012 with mountains having been leveled for its construction.[44] Some of the key industries in the new area include automobile and equipment manufacturing, biomedical, and petrochemical, as well as a burgeoning information technology sector.[45] The Lanzhou Creative Cultural Industry Park was completed in 2009. The park is a national-level industrial cluster, and it covers a variety of culture-related business activities, such as industrial design and video game development. Despite this, the city still needs to cultivate more high value-added industries to craft a resilient, healthy economy.

#5 ZHENGZHOU, HENAN

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	5th	7th	3-Year FDI Growth (2014-2017)	20th
Wage Growth	3rd	3rd	FDI/GRP (2017)	16th
GRP Per-Capita Growth	8th	14th	LQ for High Value-Added Industry (2017)	9th

Zhengzhou in Henan province fell one spot this year to number five. The city's economic performance remains strong, even improving by nine spots in one-year employment growth. Zhengzhou is particularly strong in wage growth measures for the second year in a row for both one- and five-year indicators.

Zhengzhou is the capital of the Henan province in central China, with a population of 9.9 million.[46] The city's central location makes it a logistics and trade hub under China's One Belt, One Road Initiative. The Zhengzhou-Europe International Shuttle Train begins there and runs to Hamburg, Germany. The train attracts interest from both domestic and international parties as it offers delivery in half the time of shipping by sea and experiences fewer weather complications.[47] In 2017, the value of imports and exports totaled $59.6 billion, an 8.4 percent growth from 2016.[48]

Zhengzhou's strategic location has also attracted many manufacturers to the city. The city, dubbed "iPhone City," is a major player in China's high-tech economy. In 2010, Foxconn built a manufacturing facility for iPhones in Zhengzhou Xinzheng Comprehensive Bonded Zone, a decision facilitated by the municipal government's incentive package.[49] Not only is the city a massive producer of iPhones, but it also houses several domestic mobile phone vendors such as Coolpad, Kliton, K-Touch, Skyworth, and ZTE.[50] In 2015, 200 million smartphones from over 100 handset device companies were produced at

Zhengzhou Airport Comprehensive Economic Experimental Zone, which is aimed at integrating ground and air transportation in Zhengzhou.[51] In addition to being known as a global epicenter for smartphone manufacturing, Zhengzhou is a production hub for automobiles. Shaolin Bus, Yutong Bus, Zhengzhou Nissan, and Haima Motor all have a presence there.[52] Henan is also one of the key agricultural and frozen food producers in China. Chinese major frozen producers, such as Sanauan Food Co Ltd and Synear Food, are all headquartered here.

#6 XI'AN, SHAANXI

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	13th	12th	3-Year FDI Growth (2014-2017)	6th
Wage Growth	4th	7th	FDI/GRP (2017)	6th
GRP Per-Capita Growth	17th	12th	LQ for High Value-Added Industry (2017)	10th

Xi'an climbs three spots from number nine last year to sixth in this year's ranking. Though the city is performing well across all six indicators, wage growth and FDI are standouts. The capital city of Shaanxi province has a large population, with over 9 million people as of 2017, marking an increase of roughly 800,000 from the year prior.[53]

Xi'an is part of the Diamond Economic Zone and is located at the geographic top of that diamond in the western region of China. As one of four highly industrialized cities in the zone (along with Chengdu, Chongqing, and Kunming), the city is a contender in aviation and aerospace production rivaling Chengdu. Defense—in particular aviation and aerospace manufacturing—is a significant part of the city's economic foundation, and Xi'an Aircraft Industrial Corporation is headquartered in the city. It produces both mid-to-long range civilian and military aircrafts.[54] Due to the city's defense fixture, Xi'an is expected to capture part of the funding earmarked for developing China's nascent civilian aircraft design and manufacturing under China's new development agenda.

Xi'an's economic growth is also the fruit of China's "Go West" initiative and the One Belt, One Road plan. The city was the starting point of the ancient Silk Road and now has a railway connecting the city with Central Asia and Europe. To facilitate international trade, the city established Xi'an International Trade and Logistics Park and Xi'an Comprehensive Bonded Zone. The city's FDI more than doubled in five years, growing from $2.48 billion in 2012 to $5.31 billion in 2017.

Under China's 13th five-year plan (2016-2020), development has been underway to establish several strategic industries in Xi'an, such as culture and tourism; energy storage, transport, and exchange; finance, trading, and logistics; machine manufacturing; and science and technology research and development.[55] In particular, recent leisure and amenity development along with Xi'an's rich historic structures and artifacts, such as Huaqing Pool and the Terracotta Warriors, bring in a significant amount of tourism activity. During the National Day holiday in 2016, the city drew in 8.85 million tourists, which was a 12 percent increase year-on-year.[56] Along with increased tourism came more leisure activities. Several luxury shopping malls were opened or under development by 2016 in Xi'an, with large companies like HNA Group, Taubman Asia, and Wangfujing Group involved in the projects.[57]

#7 GUIYANG, GUIZHOU

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	6th	5th	3-Year FDI Growth (2014-2017)	3rd
Wage Growth	19th	6th	FDI/GRP (2017)	20th
GRP Per-Capita Growth	14th	1st	LQ for High Value-Added Industry (2017)	32nd

Guiyang is the capital of Guizhou province, located in a mountainous southwest region of China. The city's population is about 4.08 million (as of 2017) and is steadily growing.[58] Guiyang is down two spots this year to seventh place. Despite this, the city has been in the Top 10 Best-Performing Cities four times in the last five years.

The city took the top spot in five-year GRP per-capita growth and performed very well in three-year FDI growth and both employment growth categories. The city climbed up the ranking five spots from last year in one-year employment growth. Guiyang also experienced healthy wage growth in the five years ending in 2017. Higher employment and wages along with China's general increase in the opening of visa policies may have contributed to Guiyang's staggering 389 percent increase in outbound tourism from 2016 to 2018—a higher growth rate than any other second-tier city.[59] However, Guiyang showed a relatively low concentration of high value-added industry, coming in number 32 out of 34 first- and second-tier cities in that measure.

Manufacturing jobs have been steadily decreasing over the past several years as the city moves into more service-oriented industries. Despite a poor showing in high-value-added industry, Guiyang's climate, power supply, and network infrastructure has allowed the city to establish itself in the big data sector, some even calling it "China's Big Data Valley."[60] Since 2015, Guiyang has held the China International Big Data Industry Expo. Recently, companies like Foxconn and Huawei have opted to build data centers in the Guian New Area, located just outside of Guiyang.[61] The economic zone also partnered with US company Qualcomm to establish HXT Semiconductor Technology Ltd. to build an Integrated Circuit (IC) Park and develop advanced chipsets.[62] Other plans in the works for Guian New Area include an open incubation park and smart terminal product industrial park.[63]

#8 CHANGCHUN, JILIN

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	25th	9th	3-Year FDI Growth (2014-2017)	5th
Wage Growth	26th	10th	FDI/GRP (2017)	1st
GRP Per-Capita Growth	23rd	19th	LQ for High Value-Added Industry (2017)	12th

Changchun in Jilin province is down two spots from last year to eighth place. The city has been in our Top 10 list of best-performing cities four times in the last five years due to significant outside investment. Changchun comes in fifth in three-year FDI growth and tops our list in FDI/GRP. However, the city did not show well in one-year measures, dropping several spots in each category from last year.

Changchun is located in northeast China and is the capital city of Jilin province. The city has a population of 7.49 million[64] and has traditionally relied on agricultural product processing, manufacturing (specifically automobile production), and the film industry. FAW Group (China's earliest automotive manufacturing company) and the Changchun Film Studio are two iconic homegrown companies in the city. Both the auto and film industries here, however, have been facing both domestic and global competition. As China's vehicle market continued its downward spiral in recent years, the FAW Group has faced severe challenges and has been seeking growth strategies such as new energy vehicle development. The rise of other film

clusters in China—such as the National Art Studios in Foshan, Guangdong province and the Hengdian World Studios in Zhanjiang province—dwarfed Changchun's role in the film industry.

Recognizing the danger of relying on automobile and film production, Changchun has recently been promoting a strategic set of emerging industries. In 2016, top fields of growth included advanced manufacturing, photoelectric information, bio-pharmaceutical, new energy and new energy vehicle, new materials, and big data—showing that high-tech industries are growing in Changchun.[65] In the first two months of 2017, Changchun's output for medical, food, and new energy industries grew by 13.3 percent, 13.2 percent, and 6.8 percent respectively.[66]

Changchun has a fairly strong talent infrastructure. The city is home to more than 40 universities and some research institutions including Jilin University and Changchun Institute of Optics, Fine Mechanics and Physics of the Chinese Academy of Sciences. In fact, the city has made major strides in research and development in recent years, landing in Nature magazine's fifth spot of its 2014 index of top research cities in China.[67] Despite this, the city has to transform its research outcomes into applications and commercialization more effectively to facilitate a knowledge-based economy.[68]

#9 WUHAN, HUBEI

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	7th	17th	3-Year FDI Growth (2014-2017)	4th
Wage Growth	7th	13th	FDI/GRP (2017)	5th
GRP Per-Capita Growth	10th	10th	LQ for High Value-Added Industry (2017)	23rd

Wuhan in the Hebei province is up seven spots this year to ninth place. The city's FDI (fourth in three-year growth and fifth in FDI/GDP) and one-year employment and wage growth (seventh in both) are all strong. The city is a transportation hub in central China and has a population of 8.54 million.[69]

Wuhan has long been known as an industrial city,- and for the automotive industry in particular. However, the recent decline in vehicle sales in China brought challenges to the city's auto industry. One of the best-known Wuhan companies, Dongfeng Group, would be forced to scale down its production capacity after China's automotive market (the world's largest) shrank for the 13th month in a row. Dongfeng Group recently announced its joint venture with French automaker PSA Peugeot Citroen, under the name Dongfeng Peugeot Citroen Automobiles. The joint-venture was viewed as a sign of consolidation in the Chinese automobile market.. They plan to cut 4,000 staff (or half of the current employees) and sell two of their four factories.[70]

Other industries, however, have been growing, and Wuhan has been nurturing more high value-added industries. Two Chinese semiconductor suppliers—Wuhan Xinxin Semiconductor Manufacturing Co., Ltd. and Yangtze Memory Technologies Co. Ltd.—are based in Wuhan. Wuhan East Lake High-tech Development Zone, also known as Optics Valley, has lured several high-tech companies, including Xiaomi Corp. and Ofo Inc., a bike-sharing startup.[71] In 2017, Wuhan, along with the provincial government, announced a $1.8 billion joint investment fund with Xiaomi to attract hardware startups and support existing tech companies in the city.[72] Most recently in 2019, the Wuhan East Lake High-tech Development Zone pledged US$14.9 million to bring in top global talent in optical technology, biomedicine, green industry, high-end equipment manufacturing, modern service sectors, integrated circuit, and digital industries.[73]

Wuhan has a significant amount of economic activity propelling its growth. The city has drawn investments from 230 Fortune Global 500 firms and has 1,656 high-tech enterprises with numerous incubators contributing to growth.[74] As the city continues to shift focus away from its old industrial economy and towards more high-value-added industries, growth should continue.

#10 XIAMEN, FUJIAN

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	4th	10th	3-Year FDI Growth (2014-2017)	16th
Wage Growth	6th	23rd	FDI/GRP (2017)	11th
GRP Per-Capita Growth	4th	26th	LQ for High Value-Added Industry (2017)	11th

Tenth-ranking Xiamen is the fourth-largest city in the coastal province of Fujian. It is the second time Xiamen is ranked in the top 10 cities list among the first- and second-tier cities in the last five years. Although the city's population base of 4 million[75] is small among the first- and second-tier cities in China, this old seaport city is one of the first four regions designated by the central government as a "special economic zone" in the early 1980s.

Xiamen's urban development took off in the last decade and a half. High rises and manufacturing facilities transformed this once tranquil coastal resort to a dense and buzzing commercial center. The city's close geographical proximity to Taiwan and strong cultural ties with many overseas Chinese Diasporas in Asia and North America are among the driving forces fueling the region's development. Hence, FDI has been a critical factor in the city's growth.

Trading with Taiwan is an essential aspect of commercial business in Xiamen. The central government and local government established a Free Trade Zone (FTZ) for international trade with Southeast Asian economies. The core of the zone focuses on business with Taiwan.[76]

Xiamen's strong standing as an expanding economy reflects a favorable employment, wage, and per capita GDP rankings among the top-tier cities in recent years. Its employment growth and per-capita GRP rank fourth, and its wage growth is sixth in our most recent ranking. FDI growth and FDI as a share of regional output ranking indicate the city is converting foreign investments into growth. Fixed Investment and FDI utilization in Xiamen were ranked the best among large cities in the Fujian Province.[77] As for technology-led development, Xiamen's regional development blueprint suggests the city's build-up of its information, electronic, and logistics sectors will further regional growth. The ambitious plan to integrate port-airport-information processing is renewing the city's role as an ancient port by developing it into a modern transportation hub.

Xiamen's development is promising, as the government intends to intensify the city's ties with Taiwan. Infrastructure building, port development, FTZ, and housing will drive growth moving forward. The intensive development in the last 10 years reflects a "catching up" effort to enable the city to reach growth similar to other cities with significant FTZs such as Shenzhen, as well as building a strong linkage with One Belt, One Road. Commercial development aside, Xiamen, like Dalian, is both a resort and tourist destination and is a popular place for retirement. A balanced and modernized development approach will build a strong foundation for future growth.

Complete Results: First- and Second-tier Cities

Change in Rank Over 1 Year	2018 Rank (Tier 1 & 2 Cities)	2019 Rank (Tier 1 & 2 Cities)	City	Province	City Tier	1-Year Job Growth (2016-2017)	5-Year Job Growth (2012-2017)	1-Year Wage Growth (2016-2017)	5-Year Wage Growth (2012-2017)	1-Year GRP Per capita Growth (2016-2017)	5-Year GRP Per capita Growth (2012-2017)	3-Year FDI Growth (2014-2017)	FDI/GRP (2017)	LQ for High-value Added Industry Employment (2017)
6	7	1	Chengdu	Sichuan	2	2	1	18	4	3	15	18	4	21
-1	1	2	Shenzhen	Guangdong	2	12	2	10	1	18	16	12	21	1
9	12	3	Beijing		1	8	19	5	18	20	18	1	2	8
14	18	4	Lanzhou	Gansu	2	1	4	1	11	16	9	2	19	30
-1	4	5	Zhengzhou	Henan	2	5	7	3	3	8	14	20	16	9
3	9	6	Xi'an	Shaanxi	2	13	12	4	7	17	12	6	6	10
-2	5	7	Guiyang	Guizhou	2	6	5	19	6	14	1	3	20	32
-2	6	8	Changchun	Jilin	2	25	9	26	10	23	19	5	1	12
7	16	9	Wuhan	Hubei	2	7	17	7	13	10	10	4	5	23
1	11	10	Xiamen	Fujian	2	4	10	6	23	4	26	16	11	11
6	17	11	Nanjing	Jiangsu	2	24	3	16	2	11	7	19	22	13
-4	8	12	Hefei	Anhui	2	10	6	12	9	12	4	7	17	24
0	13	13	Qingdao	Shandong	2	22	20	23	14	21	22	13	7	5
1	15	14	Shanghai		1	19	18	21	12	25	17	24	9	3
9	24	15	Guangzhou	Guangdong	2	17	27	2	22	29	25	15	23	6
6	22	16	Ningbo	Zhejiang	2	3	33	22	32	7	23	22	18	4
-3	14	17	Nanchang	Jiangxi	2	30	8	27	8	5	8	17	3	27
-8	10	18	Hangzhou	Zhejiang	2	20	24	15	21	24	13	21	12	15
1	20	19	Fuzhou	Fujian	2	16	22	20	24	2	5	11	24	26
3	23	20	Changsha	Hunan	2	11	28	14	27	30	20	9	14	14
-2	19	21	Nanning	Guangxi	2	15	11	11	5	15	2	25	30	33
5	27	22	Kunming	Yunnan	2	18	21	13	16	6	11	30	28	28
-21	2	23	Chongqing		1	9	13	31	17	22	3	23	13	34
4	28	24	Haikou	Hainan	2	14	15	17	15	19	6	33	32	22
-4	21	25	Jinan	Shandong	2	29	31	29	20	27	27	10	25	16
3	29	26	Taiyuan	Shanxi	2	21	26	8	29	1	24	32	31	20
6	33	27	Yinchuan	Ningxia	2	23	23	9	25	13	21	28	33	25
-3	25	28	Shijiazhuang	Hebei	2	33	25	28	19	26	28	8	26	19
1	30	29	Hohhot	Inner Mongolia	2	28	14	24	28	28	29	26	29	31
1	31	30	Urumqi	Xinjiang	2	26	16	25	26	9	30	34	34	29
-28	3	31	Tianjin		1	31	30	34	30	32	31	27	8	7
-6	26	32	Harbin	Heilongjiang	2	27	32	30	31	34	32	14	10	18
-1	32	33	Dalian	Liaoning	2	34	34	33	34	33	33	31	15	2
0	34	34	Shenyang	Liaoning	2	32	29	32	33	31	34	29	27	17

BEST-PERFORMING CITIES
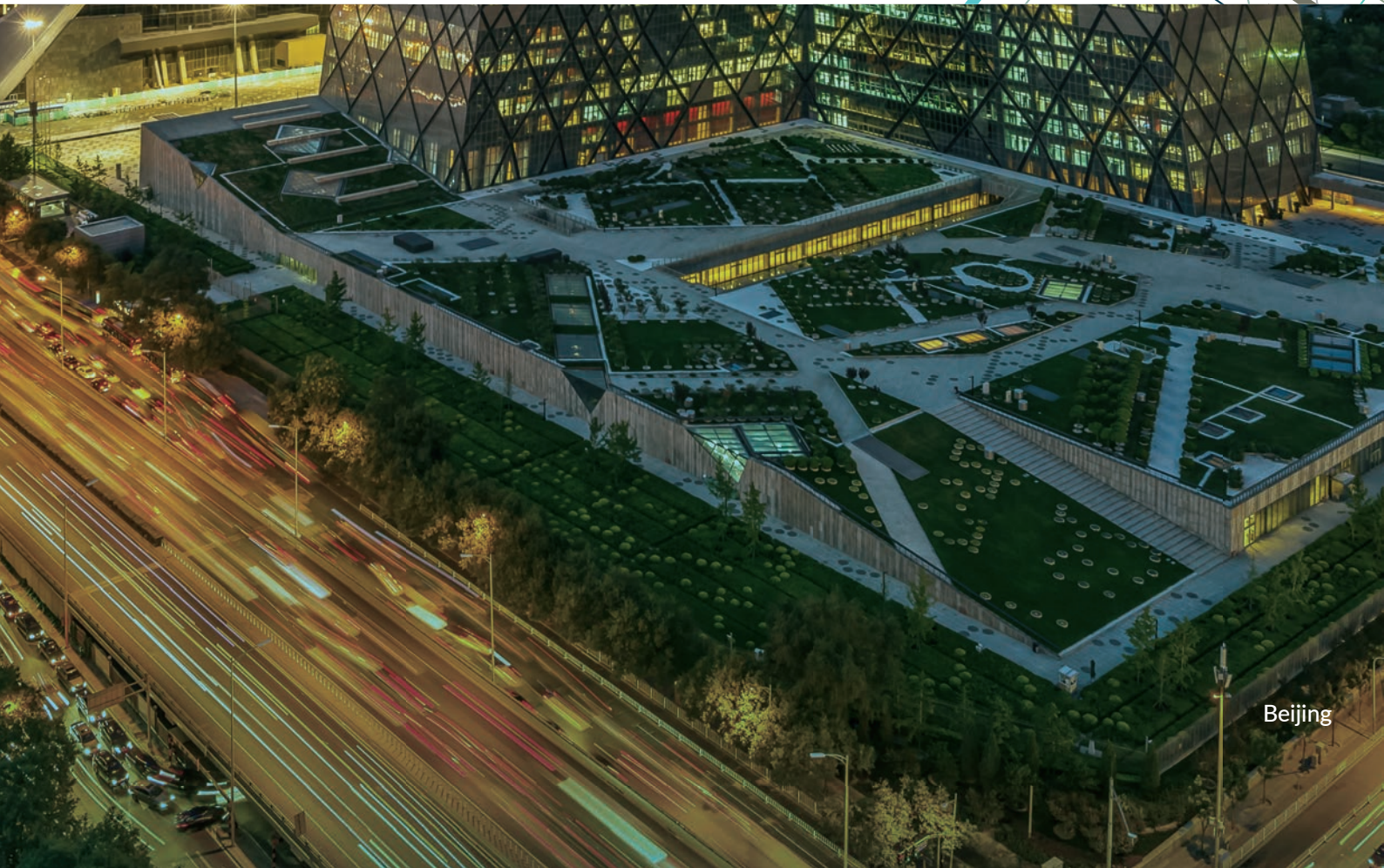
Beijing

Top 10 Best-Performing Cities
(Third-Tier Cities)

#1 DONGGUAN, GUANGDONG

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	16th	1st	3-Year FDI Growth (2014-2017)	183rd
Wage Growth	45th	1st	FDI/GRP (2017)	85th
GRP Per-Capita Growth	118th	100th	LQ for High Value-Added Industry (2017)	2nd

Dongguan tops the list of third-tier cities for the second year in a row. Starting in 2014, the city has been promoting automation and restructuring its industries from original equipment manufacturing (OEM) to advanced/smart manufacturing. These initiatives have played a key role in rebooting the city's economy in recent years. Our indicators of rankings reflect the economic outcomes of these initiatives. In both 2016 and 2017, the city ranks first in five-year employment and wage growth. The city ranks number one and number two in 2016 and 2017, respectively, in employment for high value-added industry.

Located in southeast China and north of Shenzhen (number two in our first- and second-tier city list), Dongguan is part of the Pearl River Delta and the recently emerging Greater Bay Area. In 2017, the city had a population of approximately 8.3 million. From 2007 to 2017, its population grew by 16.4 percent. However, only about one-fourth of the population is registered residents, which marks Dongguan as a migrant city.[78]

As one of the pioneering Chinese cities under Deng Xiaoping's "Open Door Policy," Dongguan has been a manufacturing and export hub for clothes, shoes, smartphones, and toys. However, the impact of the 2008 global financial crisis and rising labor costs (including wage and insurance) drove many manufacturers elsewhere. For instance, the major player in smartphones, Nokia, shut down its manufacturing facility in Dongguan in 2015 and moved its production to Hanoi, Vietnam.[79] The mass exodus of manufacturers from Dongguan to other localities (Southeast Asian countries in particular) has emptied many plants and buildings. The New South China Mall, the world's largest shopping mall by leasable area, was even called the "ghost mall."[80]

Despite the challenges facing the industrial city, Dongguan is still a strong smartphone manufacturing hub. It is home to BBK Electronics, which has two smartphone brands—Oppo and Vivo—among the top 10 smartphone producers by market share in 2017.[81] The Chinese tech giant Huawei has a new campus, filled with European-style buildings and its own train system, in the Dongguan Songshan Lake (SSL) Hi-Tech Industrial Development Zone. SSL consists of five pillar industries: biomedical, information technology, intelligent equipment manufacturing and robotics, new energy, and new material.

Unsatisfied by being a low-end manufacturing city, the city has been upgrading its industrial bases. Since 2014, the municipal government of Dongguan has implemented "Robot Replace Human" programs. Since 2015, the city's economy has been bouncing back due to the structural change of its industrial composition. Various levels of governments have presented policies directing its economy from the OEM center to an advanced/smart manufacturing base focused on producing high-tech robotics and automated equipment.[82]

#2 NANTONG, JIANGSU

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	41st	2nd	3-Year FDI Growth (2014-2017)	118th
Wage Growth	3rd	2nd	FDI/GRP (2017)	56th
GRP Per-Capita Growth	19th	17th	LQ for High Value-Added Industry (2017)	174th

Nantong in Jiangsu province, a port city with a population of 7.6 million in 2017,[83] claims second place in this year's ranking. Its strong performance can be attributed to its recent employment and wage growth. Its five-year employment growth, one-year wage growth, and five-year wage growth rank number two, number three, and number two, respectively. Moreover, its one- and five-year GRP per capita growth are top-20 among the third-tier city group. In addition, the city has been a strong performer in our previous overall rankings—second (2015), sixth (2016), and first (2017).

The strong performance of Nantong can be attributed to its premium location and its well-established transportation and industrial infrastructure. The city is part of the Yangtze River Delta economic cluster. The Sutong Yangtze River Bridge and the Chongqi Bridge link the city with Shanghai and Suzhou (ninth in our first- and second-tier city list) with travel between the cities at less than two hours by car. In addition to the seaport, the city has the Nantong Xingdong International Airport, and the Shanghai Pudong International Airport is only two-hours driving distance. Furthermore, the city has several major industrial clusters, including Haimen Economic-Technological Development Zone, Nantong Binhai Park, Nantong Chongchuan Economic Development Zone, Nantong Economic and Technological Development Zone, Nantong Gangzha Economic Development Zone, Nantong High-tech Industrial Development Zone, and Su-Tong Science and Technology Park, which help the city to leverage the benefits of agglomeration economies.

Nantong has long been known for its textile, marine, and ship-related industries. The city has recently been trying to catch the new wave of industrial dynamics to diversify its economic base. In 2016, the city proposed a new industrial policy focusing on six industries: advanced textile; marine and ship engineering; electronics and information technology; intelligent equipment; new materials; and new energy and new energy automobile. In addition, Tongfu Microelectronics Co., Ltd. (TFME), one of the leading outsourced semiconductor assembly and test companies, is headquartered there. In 2016, TFME and the IC design company AMD created a joint venture offering differentiated assembly, test, mark, and pack capabilities.[84] This initiative would make Nantong an even more indispensable part of China's ambitious goal to become a semiconductor empire.

#3 ZHUHAI, GUANGDONG

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	20th	90th	3-Year FDI Growth (2014-2017)	75th
Wage Growth	69th	110th	FDI/GRP (2017)	4th
GRP Per-Capita Growth	11th	32nd	LQ for High Value-Added Industry (2017)	7th

Zhuhai in the Guangdong province rises two places to rank third. It scored particularly well in two growth categories in our index, standing at fourth and seventh in FDI/GRP and the employment for high value-added industry, respectively. The city also fared well in one-year employment growth (number 20) and one-year GRP per capita (number 11).

In 2017, Zhuhai had a population of close to 1.77 million.[85] It borders Macau to the south and Shenzhen and Hong Kong to the east, which is a one-hour turbojet ferry ride away. The city, together with Shantou, Shenzhen, and Xiamen, was one of the four earliest special economic zones in China, and it has Zhuhai Free Trade Zone. Like Dongguan, Zhuhai is also part of the Pearl River Delta economic cluster and the recently emerging Greater Bay Area.

More recently, the city's transportation and industrial infrastructure have been largely improved. In 2018, the Hong Kong-Zhuhai-Macau Bridge was opened and improved connectivity between Guangdong cities, Hong Kong, and Macau. Under the One Belt, One Road Initiative, the Hengqin China-Latin America Economic and Trade Cooperation Park was launched in 2017.[86] This industrial park aims to boost economic ties between China and Latin American and Caribbean countries. To achieve this goal, Zhuhai held the nation's first China-Latin America & Caribbean International Exposition in 2017.

Economically, Zhuhai is mostly known for its tourism and trade sectors. Gree Electric Appliances Inc. and Yunzhou are headquartered there. Gree is one of the major players in home appliances (air conditioners in particular), and Yunzhou is a USV (Unmanned Surface Vessels) supplier. In addition to these existing industrial bases, the municipal government has recently attempted to cultivate more high value-added industries, such as big data, cloud computing, artificial intelligence, smart grid equipment, new energy, biomedicine and medical equipment, cross-border finance, and business exhibition.[87]

#4 TAIZHOU, JIANGSU

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	25th	3rd	3-Year FDI Growth (2014-2017)	15th
Wage Growth	67th	4th	FDI/GRP (2017)	42nd
GRP Per-Capita Growth	12th	12th	LQ for High Value-Added Industry (2017)	125th

Taizhou in the Jiangsu province gains seven spots to come in fourth place in this edition of BPC China. It has been a consistent high performer in our previous ranking—2015 (fifth), 2016 (third), 2017 (sixth), and 2018 (11th). The city performed well in several of our metrics including one-year employment growth (number 25), five-year employment growth (number three), five-year wage growth (number four), one-year GRP per capita growth (number 12), five-year GRP per capita growth (number 12), and three-year FDI growth (number 15).

In 2017, Taizhou had a registered population of 5.05 million.[88] It is a prime location with proximity to Nanjing, Suzhou, and Shanghai, and enjoys benefits as a part of the Yangtze River Delta economic cluster. It has well-established transportation networks including highways, railways, a seaport, and an airport. Its locational advantage makes Taizhou a trade city. In 2017, the city's total amount of import and export revenue reached a historic milestone of $12.9 billion.[89]

Biomedical, petrochemical, and ship-related industries are the main pillars of the city's economy. In 2009, Taizhou established China Medical City, the first medical park in China. One of the Chinese leading pharmaceutical groups, the Yangtze River Pharmaceutical Group, is headquartered here. The Japanese Chugai Pharmaceutical Co. is also in residence. The city is also known for its shipbuilding industry with some major shipbuilders like Sanfu Shipbuilding and Taizhou Kouan Shipbuilding.

#5 DAZHOU, SICHUAN

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	1st	10th	3-Year FDI Growth (2014-2017)	21st
Wage Growth	2nd	16th	FDI/GRP (2017)	158th
GRP Per-Capita Growth	128th	152nd	LQ for High Value-Added Industry (2017)	178th

Dazhou in Sichuan province enters our top-10 list for the first time this year. The city has been steadily moving up in the past few years—2015 (number 201), 2016 (number 191), 2017 (number 145), and 2018 (number 148). Factors making the city stand out this year include its strong performance in one-year employment growth (number one), five-year employment growth (number 10), one-year wage growth (number two), five-year wage growth (number 16), and three-year FDI growth (number 21).

Dazhou is part of the Diamond Economic Zone. It sits in the geographic center of the Chongqing-Chengdu-Xi'an triangle, and in 2017, there were 6.72 million people residing in the city.[90] Before China's opening, the city was primarily an agricultural economy; in 1978, the agricultural sector accounted for 58.1 percent of the municipal economy. In 2017, the economy relied on the service sector (44.4 percent), followed by the industrial sector (35.2 percent) and the agricultural sector (20.3 percent). Dazhou has abundant natural resources, including natural gas and coal, and therefore energy-related industry plays a key role in the city's economy. The pillar industries now include new materials, electronics and information technology, intelligent equipment manufacturing, energy, agricultural product processing, and biomedicals.[91] The city has an industrial cluster—the Sichuan Dazhou Economic Development Zone.

The city has recently taken several initiatives to nurture its economy further. In early 2019, the city declared a plan to become an economic sub-center of the Sichuan province.[92] In addition, the municipality has established a big data agency to facilitate the development of call centers, data centers, and cloud computing centers.[93] Despite these efforts, it will take some time to see the fruit from these initiatives.

#6 YINGTAN, JIANGXI

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	3rd	16th	3-Year FDI Growth (2014-2017)	51st
Wage Growth	14th	8th	FDI/GRP (2017)	41st
GRP Per-Capita Growth	16th	34nd	LQ for High Value-Added Industry (2017)	25th

This is the first time the city of Yingtan in Jiangxi province ranked in the third-tier cities top 10 list. Yingtan is most likely an unfamiliar name to those outside of China. This prefecture-level city is relatively

small, with a registered population base of 1.3 million.[94] However, Yingtan is considered a regional transport hub due to its geographic proximity to Fujian and Zhejiang provinces.

The city's development has been steadily progressing in the last decade and a half. The city's economy relies on manufacturing and goods production, which contributes about 56 percent of the city's total GRP.[95] The city is also a copper mining and production center, and the primary sector (mining and mineral extraction) contributes over 7 percent of the city's GRP.[96] Despite its relatively remote location, the city's economy has grown steadily in the last few years. The strong showing is reflected by its sixth ranking among the top 10 smaller cities and is supported by a robust near 7 percent job growth in 2018 (number three) and five-year growth (number 16). Wage income growth in one- and five-year measures (number 14 and number eight, respectively) also solidifies the city's ranking in 2018.

Although Yingtan is a relatively small city with a short history of being industrialized, the city has built up a strong manufacturing base for spectacles and eyewear in the last 20 years. The city developed an industrial park in the early 2000s and an international incubation and demonstration area in 2012. This development enabled the city to build up a supply chain that includes sourcing, manufacturing, design, and marketing spectacles in domestic and international markets. Industries like eyewear illustrate the city's economic evolution from a primarily agricultural one in 1978 to a manufacturing center with anchor industries in 2018.[97] The city's economic development plan and implementation are enabling a quick transformation of a rural economy. The city's role as a national rail and highway hub also facilitates rapid development for manufacturing industries.

Yingtan's rise in our ranking, and to some extent other cities in Jiangxi province as well, indicates further opening up of the provincial economy in general. As a less-developed land-locked region compared to the coastal ones, it does offer lower costs for business. The spill-over effect from the neighboring provinces can help speed up Jiangxi's economy. National policies that focus on addressing uneven regional economic development benefit local development as well.

#7   LUOHE, HENAN

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	9th	31st	3-Year FDI Growth (2014-2017)	131st
Wage Growth	4th	26th	FDI/GRP (2017)	18th
GRP Per-Capita Growth	147th	129th	LQ for High Value-Added Industry (2017)	12th

Luohe secures the seventh place two years in a row in the top 10 third-tier cities. This prefecture-level city sits at the center of Henan province, and the province is at the center of the nation, culturally and geographically.[98]

The economic success story of Luohe is different from other well-known names such as Suzhou, Hangzhou, Shenzhen, and Shanghai, whose success rides on globalized production and technology waves. As the heartland of China, Luohe's robust economic performance was built on traditional agricultural production and food processing. The region's chief products include meat products, wheat, frozen food, animal feedstock, fruit juice, cotton, and leather products.[99]

The composition of the industrial sector is revealing, with primary industry contributing 9.4 percent, secondary industry 61.3 percent, and tertiary industry 29.3 percent to regional output. Economic performance shown by the various indicators also illustrates the unique characteristics of the region.[100] One-year employment growth ranks at ninth and five-year growth at 31st in 2018. Wage income growth indicators pair with the job growth as well, with respective rankings at number four and number 26.

The highlight is that the LQ for high value-added industry employment ranks at 12. However, the city's relative shortcoming is in the region's low absorption of FDI, where FDI growth ranks at 131st place. Understandably, the lack of FDI presence reflects the restriction of China's previous FDI policy on the nation's agriculture sector.

Luohe's exceptional performance is significant and has business and economic implications worth noting. Firstly, the region's focus on agriculture production and process has enabled the local economy to thrive and can rival that of some high-tech and outward-oriented regional economies in China. It is a strong indication that in the domestic market, food processing and high-quality products are in high demand as income rises quickly. Secondly, the region's "average" growth in FDI has not affected its ability to inject high-value-added contents to agri-business.

Luohe established the National Luohe Economic and Technological Development Zone, which aims to enhance food production, processing, and security/safety standardization and development. The zone will also take on bio-agriculture production and environment demonstration.[101] In parallel, the city also utilized its existing economic and technology development zone to extend its supply chain, incorporating both upstream and downstream agri-business production related to food processing equipment and materials, packaging, and logistics.

#8 ANSHUN, GUIZHOU

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	6th	41st	3-Year FDI Growth (2014-2017)	6th
Wage Growth	47th	27th	FDI/GRP (2017)	73rd
GRP Per-Capita Growth	26th	1st	LQ for High Value-Added Industry (2017)	75th

Anshun ranks number eight in this year's third-tier cities' top 10 list. It is the second time the city enters the top 10 list. The city has kept up its economic performance from last year, advancing its ranking from number 10 to number eight. The city has excelled in three categories in our nine sub-indicator metrics. Anshun's one-year employment growth ranked sixth, and three-year FDI growth ranked sixth.

Most importantly, but not too surprisingly, is the city's number one rank in five-year GRP per-capita growth, a repeat from the 2018 ranking. According to government statistics, Anshun's real RGP grew by 12.3 percent in 2017, almost doubling the national average. Its per capita RGP increased by 30,216 RMB to 34,345 RMB in 2017 from 2016.[102]

The city's ascent in the ranking and drastic improvement in economic well-being should not come as a surprise. There are two crucial national policies contributing to the local development initiatives that are driving Anshun's outstanding achievement. On the national level, China has put a higher priority on developing the western regions. In parallel, the multi-level "War on Poverty" has shown results over a long stretch of national effort. These concerted efforts have injected capital and projects to elevate residents' economic opportunity. Local government planning and initiatives in building up the industrial base is another layer of work that improves the economic outlook of Anshun.[103]

In addition to the city's traditional and renowned industries, such as alcoholic beverages and cultural tourism, local government has leveraged outside investment to build up manufacturing capacity in materials, equipment making, aerospace, and health-care products. In parallel, educational institutions have broadened their coverage from universities, technical colleges, and aerospace vocational schools to groom local talent and supply the workforce for regional development. Traditionally, Guizhou

and its cities are among the less developed regions in China. The injection of capital, work projects, and favorable economic policies can help kick-start the process of development. Anshun is taking its first few steps to modernize its economy. So far, the region has achieved steady growth and maintained this trend in the last five years.

#9 SUZHOU, JIANGSU

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	64th	7th	3-Year FDI Growth (2014-2017)	162nd
Wage Growth	73rd	6th	FDI/GRP (2017)	71st
GRP Per-Capita Growth	58th	123rd	LQ for High Value-Added Industry (2017)	3rd

Suzhou in the Jiangsu province has been in the top 10 list since the launch of this ranking. It holds steady for the second year in ninth place. It has a strong performance in five-year employment and wage growth (number seven and number six, respectively) and the LQ employment measurement (number three). The city's excellent performance in the LQ measurement can be attributed to its continuing transformation into a hub for high value-added industries. For instance, in 2017, the city's output value of industrial robot manufacturing was 22.7 billion RMB, a 39.3 percent growth from the previous year.[104]

In 2017, Suzhou had a population of close to 11 million.[105] The city is located in a prime location close to Shanghai, Kunshan, Nantong (second in our small city group), and Taizhou (fourth in our small city group). These cities form a strong regional cluster within which they share some similarities in industrial structures while each of them cultivates its unique industrial compositions. For instance, Kunshan has been nurturing its robotics industry. Suzhou is unique among them in the sense that it has both research and development capacity and a well-established, advanced manufacturing base.

Agglomeration economies have played a key role in driving Suzhou's economic growth. Suzhou has recently been driving low-end manufacturing industries out of the city boundary. Its ambition is to entice enterprises to set their headquarters there and to cultivate the service and high value-added industrial sectors, including next-generation information technologies, high-tech equipment, semiconductors, biomedical, and new materials.[106] In addition to the Suzhou Industrial Park, the Suzhou New District (SND) is another economic growth engine for Suzhou. In 2017, the GDP and the industrial output value of SND were 116 billion RMB and 310.9 billion RMB, respectively.[107]

The city has built up its talent pool and research and development capacity. Chinese Academy of Sciences' Shanghai Institute of Technical Physics, Harvard University Weitz Innovation Center, iFlyTek's Suzhou Institute, Shanghai Jiao Tong University's Institute of Artificial Intelligence, and Southeast University's Institute of Medical Equipment all have a presence there. In addition, the city recently got support from the Chinese central government in facilitating international trade. In August 2019, the Chinese government set up the China (Jiangsu) Pilot Free Trade Zone, which has three sub-zones in Lianyungang, Nanjing, and Suzhou. A high value-added diverse industrial base, a growing talent pool, and the new Free Trade Zone should help Suzhou maintain its economic strength in the future.

#10 MAANSHAN, ANHUI

	1-YEAR (2016-2017)	5-YEAR (2012-2017)		
Employment Growth	96th	95th	3-Year FDI Growth (2014-2017)	70th
Wage Growth	20th	115th	FDI/GRP (2017)	1st
GRP Per-Capita Growth	29th	164th	LQ for High Value-Added Industry (2017)	76th

Maanshan in the Anhui province rounds off our top 10 small cities list. The city has been moving up in our rankings, reaching number 88 (2016), number 58 (2017), and number 30 (2018). Its share of FDI to GRP ranks first among all small cities in 2017. In 2017, the city's FDI was $2.3 billion, 8.6 percent growth from the previous year.[108]

In 2017, Maanshan had a population of 2.3 million.[109] The city is known for its greenness, tranquility, and cultural heritage. The tomb of the famous Chinese poet Li Bai of the Tang Dynasty is located here. Geographically, Maanshan is close to Nanjing and Hefei, which all belong to the Yangtze River cluster. By high-speed rail, it takes about 17 minutes to travel from Maanshan to Nanjing. The Anhui University of Technology is a major higher education institution that supplies the workforce for the local labor market.

In 2017, the city's GDP was 173.8 billion RMB, which lands the city in third place among all the cities in Anhui province.[110] This resource-dependent city has been known for its secondary industries, and for the steel industry in particular. MA Steel is one of the most well-known local companies in the city. However, as China has faced overcapacity in steel production, the city's steel industry also confronted a severe challenge. To cope with this vexing issue, the city has tried to develop other industrial sectors, including advanced manufacturing, biomedicals, new energy, new energy vehicles, and new materials. Nonetheless, the city still lacks high value-added industries that can drive the city's long-term growth. If the city would like to stand out from its counterparts, it needs to find core industries for its future.
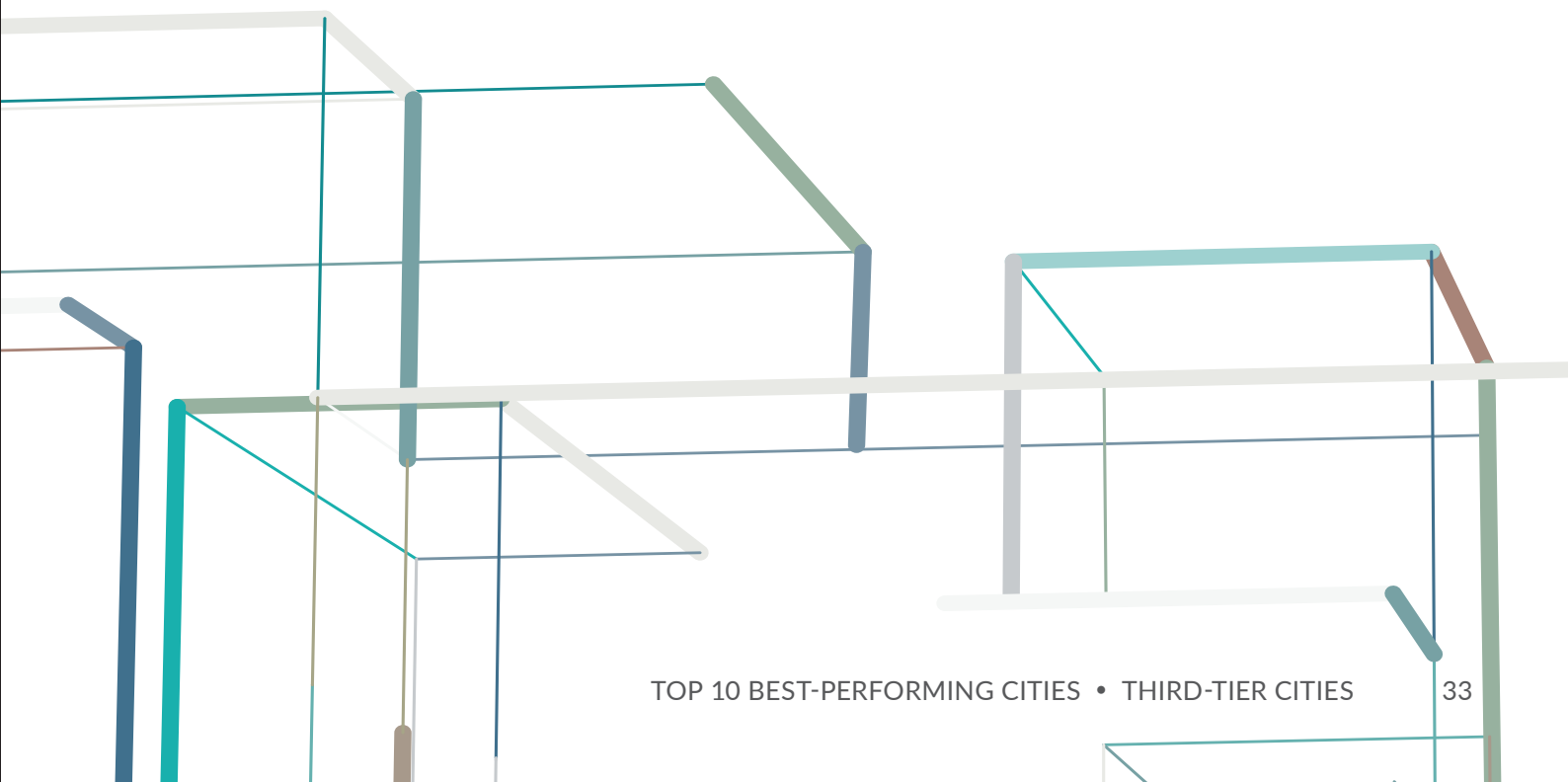
BEST-PERFORMING CITIES

Shenzhen

Complete Results: Third-tier Cities

Change in Rank Over 1 Year	2018 Rank (Tier 3 Cities)	2019 Rank (Tier 3 Cities)	City	Province	City Tier	1-Year Job Growth (2016-2017)	5-Year Job Growth (2012-2017)	1-Year Wage Growth (2016-2017)	5-Year Wage Growth (2012-2017)	1-Year GRP Per capita Growth (2016-2017)	5-Year GRP Per capita Growth (2012-2017)	3-Year FDI Growth (2014-2017)	FDI/GRP (2017)	LQ for High-value Added Industry Employment (2017)
RANKINGS BY COMPONENT														
0	1	1	Dongguan	Guangdong	3	16	1	45	1	118	100	183	85	2
59	61	2	Nantong	Jiangsu	3	41	2	3	2	19	17	118	56	174
2	5	3	Zhuhai	Guangdong	3	20	90	69	110	11	32	75	4	7
7	11	4	Taizhou	Jiangsu	3	25	3	67	4	12	12	15	42	125
143	148	5	Dazhou	Sichuan	3	1	10	2	16	128	152	21	158	178
37	43	6	Yingtan	Jiangxi	3	3	16	14	8	16	34	51	41	25
9	16	7	Luohe	Henan	3	9	31	4	26	147	129	131	18	12
2	10	8	Anshun	Guizhou	3	6	41	47	27	26	1	6	73	75
0	9	9	Suzhou	Jiangsu	3	64	7	73	6	58	123	162	71	3
20	30	10	Maanshan	Anhui	3	96	95	20	115	29	164	70	1	76
-5	6	11	Ji'an	Jiangxi	3	42	12	170	12	62	9	48	16	40
24	36	12	Jiujiang	Jiangxi	3	44	130	53	56	15	21	45	6	61
-10	3	13	Foshan	Guangdong	3	156	4	161	3	143	149	158	107	6
44	58	14	Changzhou	Jiangsu	3	72	33	8	39	17	25	133	51	16
143	158	15	Laiwu	Shandong	3	107	175	194	202	1	157	3	72	20
-12	4	16	Wuhu	Anhui	3	120	66	109	126	103	27	50	5	24
0	17	17	Chuzhou	Anhui	3	128	59	34	38	48	40	59	9	47
34	52	18	Langfang	Hebei	3	32	107	188	118	184	84	43	47	1
2	21	19	Jiaxing	Zhejiang	3	109	152	70	140	50	103	93	12	10
65	85	20	Wuxi	Jiangsu	3	88	52	38	59	24	146	74	44	8
107	128	21	Guang'an	Sichuan	3	45	44	5	19	115	66	109	172	11
-8	14	22	Huizhou	Guangdong	3	34	110	61	88	47	55	160	61	5
2	25	23	Shangqiu	Henan	3	11	11	13	9	85	51	99	111	84
26	50	24	Xuancheng	Anhui	3	14	228	49	62	55	71	52	8	60
-10	15	25	Hebi	Henan	3	145	86	113	143	151	97	84	3	33
-4	22	26	Zunyi	Guizhou	3	47	98	117	73	21	4	4	123	168
177	204	27	Zhangjiajie	Hunan	3	46	160	1	105	110	61	28	92	203
-15	13	28	Jiaozuo	Henan	3	89	37	41	28	124	108	103	40	15
-21	8	29	Zhongshan	Guangdong	3	155	5	187	10	176	162	143	121	4
1	31	30	Putian	Fujian	3	21	23	60	42	57	28	58	90	34
3	34	31	Zhangzhou	Fujian	3	53	87	26	96	35	16	92	49	32
5	37	32	Bozhou	Anhui	3	49	35	28	70	122	74	68	13	100
-7	26	33	Bengbu	Anhui	3	176	112	158	103	80	26	72	2	101

Change in Rank Over 1 Year	2018 Rank (Tier 3 Cities)	2019 Rank (Tier 3 Cities)	City	Province	City Tier	1-Year Job Growth (2016-2017)	5-Year Job Growth (2012-2017)	1-Year Wage Growth (2016-2017)	5-Year Wage Growth (2012-2017)	1-Year GRP Per capita Growth (2016-2017)	5-Year GRP Per capita Growth (2012-2017)	3-Year FDI Growth (2014-2017)	FDI/GRP (2017)	LQ for High-value Added Industry Employment (2017)
-6	28	34	Ganzhou	Jiangxi	3	116	94	124	46	23	30	47	15	90
14	49	35	Shiyan	Hubei	3	37	64	65	81	27	20	17	98	48
-13	23	36	Chifeng	Inner Mongolia	3	179	159	190	191	217	184	1	133	201
19	56	37	Shantou	Guangdong	3	24	106	35	104	45	41	8	117	53
4	42	38	Yichun	Jiangxi	3	65	47	101	64	33	43	69	36	45
-21	18	39	Xuchang	Henan	3	119	27	88	33	92	91	85	65	21
7	47	40	Yangzhou	Jiangsu	3	158	6	184	5	28	13	135	81	123
16	57	41	Rizhao	Shandong	3	50	26	139	29	70	113	111	57	29
29	71	42	Zhumadian	Henan	3	19	15	59	17	93	49	104	100	93
58	101	43	Wuzhou	Guangxi	3	10	36	32	20	32	62	121	217	55
-9	35	44	Weihai	Shandong	3	117	143	144	138	107	155	73	39	9
23	68	45	Chizhou	Anhui	3	126	39	58	61	165	107	71	20	92
-1	45	46	Ezhou	Hubei	3	78	111	75	108	40	48	39	54	65
53	100	47	Liuzhou	Guangxi	3	36	62	51	37	86	110	13	78	109
11	59	48	Suqian	Jiangsu	3	152	8	90	7	82	19	163	126	77
39	88	49	Shangrao	Jiangxi	3	87	147	71	95	44	45	49	26	138
-4	46	50	Luoyang	Henan	3	141	75	87	142	54	137	106	19	63
27	78	51	Jingmen	Hubei	3	73	118	39	112	98	77	33	75	52
3	55	52	Bijie	Guizhou	3	31	60	54	52	36	3	12	124	227
16	69	53	Tongren	Guizhou	3	95	67	68	15	43	2	20	138	224
41	95	54	Lu'an	Anhui	3	4	14	85	151	177	90	81	38	106
-44	11	55	Taizhou	Zhejiang	3	7	134	33	173	49	99	19	142	74
53	109	56	Yongzhou	Hunan	3	33	121	48	120	172	95	31	17	167
26	83	57	Puyang	Henan	3	94	65	82	89	109	52	63	34	105
131	189	58	Yuncheng	Shanxi	3	134	204	126	102	119	183	2	162	120
73	132	59	Nanping	Fujian	3	30	156	95	148	72	36	10	122	104
6	66	60	Huzhou	Zhejiang	3	77	123	114	139	135	111	114	33	38
18	79	61	Xiaogan	Hubei	3	58	84	103	83	87	15	120	102	71
5	67	62	Chenzhou	Hunan	3	55	127	56	125	213	132	29	7	159
31	94	63	Xuzhou	Jiangsu	3	122	20	133	48	31	37	123	76	124
-20	44	64	Xiangyang	Hubei	3	74	28	204	169	95	44	18	87	62
9	74	65	Sanya	Hainan	3	13	30	10	13	84	89	188	129	158
-25	41	66	Zhoukou	Henan	3	165	24	169	30	108	53	95	93	64

Change in Rank Over 1 Year	2018 Rank (Tier 3 Cities)	2019 Rank (Tier 3 Cities)	City	Province	City Tier	1-Year Job Growth (2016-2017)	5-Year Job Growth (2012-2017)	1-Year Wage Growth (2016-2017)	5-Year Wage Growth (2012-2017)	1-Year GRP Per capita Growth (2016-2017)	5-Year GRP Per capita Growth (2012-2017)	3-Year FDI Growth (2014-2017)	FDI/GRP (2017)	LQ for High-value Added Industry Employment (2017)
128	195	67	Huaibei	Anhui	3	75	163	86	228	18	125	79	11	189
74	142	68	Liupanshui	Guizhou	3	18	153	7	145	76	6	132	77	222
33	102	69	Changde	Hunan	3	51	124	40	69	175	93	16	46	163
-22	48	70	Beihai	Guangxi	3	97	161	105	121	4	7	161	154	85
40	111	71	Lianyungang	Jiangsu	3	157	51	81	63	78	39	144	67	82
92	164	72	Tongling	Anhui	3	84	38	91	76	9	219	41	79	43
4	77	73	Huai'an	Jiangsu	3	178	21	196	40	116	14	124	45	83
7	81	74	Xinxiang	Henan	3	192	45	135	44	127	118	80	29	99
62	137	75	Nanchong	Sichuan	3	63	22	19	22	81	80	134	174	128
-25	51	76	Pingxiang	Jiangxi	3	201	42	115	21	153	124	67	48	73
83	160	77	Sanming	Fujian	3	52	168	16	122	20	59	65	147	136
-16	62	78	Liaoyuan	Jilin	3	23	25	79	32	223	190	38	27	54
-46	33	79	Xinyu	Jiangxi	3	177	80	173	128	157	169	77	35	23
79	159	80	Guigang	Guangxi	3	59	92	55	24	52	75	24	185	161
23	104	81	Qinzhou	Guangxi	3	168	58	154	53	5	8	35	104	207
-7	75	82	Jiangmen	Guangdong	3	166	128	159	106	74	131	159	97	14
-71	12	83	Kaifeng	Henan	3	139	55	224	60	137	42	53	43	51
26	110	84	Jingdezhen	Jiangxi	3	102	158	43	144	187	153	60	82	39
7	92	85	Yantai	Shandong	3	150	171	162	150	167	144	88	63	19
29	115	86	Yancheng	Jiangsu	3	164	19	137	31	66	33	142	115	107
-3	84	87	Suizhou	Hubei	3	129	113	77	82	100	60	34	119	111
-49	39	88	Ningde	Fujian	3	70	72	50	98	91	31	181	176	49
-19	70	89	Xinyang	Henan	3	113	40	93	49	145	78	108	80	126
16	106	90	Fuyang	Anhui	3	38	91	132	97	71	63	55	125	130
-9	82	91	Qinhuangdao	Hebei	3	198	200	200	194	60	172	78	14	56
-39	53	92	Fuzhou	Jiangxi	3	172	74	150	41	61	38	36	69	173
81	174	93	Wenzhou	Zhejiang	3	2	126	25	167	166	105	152	156	86
49	143	94	Shaoyang	Hunan	3	82	119	12	68	162	68	30	112	188
-15	80	95	Heyuan	Guangdong	3	66	83	106	71	174	94	174	137	26
77	173	96	Sanmenxia	Henan	3	187	196	22	201	121	176	105	10	177
10	107	97	Quzhou	Zhejiang	3	99	149	66	119	170	46	117	159	58
10	108	98	Qingyuan	Guangdong	3	56	68	83	78	163	135	154	144	36
51	150	99	Hanzhong	Shaanxi	3	62	100	118	135	14	11	138	193	142

Change in Rank Over 1 Year	2018 Rank (Tier 3 Cities)	2019 Rank (Tier 3 Cities)	City	Province	City Tier	1-Year Job Growth (2016-2017)	5-Year Job Growth (2012-2017)	1-Year Wage Growth (2016-2017)	5-Year Wage Growth (2012-2017)	1-Year GRP Per capita Growth (2016-2017)	5-Year GRP Per capita Growth (2012-2017)	3-Year FDI Growth (2014-2017)	FDI/GRP (2017)	LQ for High-value Added Industry Employment (2017)
-36	64	100	Zhenjiang	Jiangsu	3	200	131	206	147	183	87	119	50	17
-12	89	101	Zhuzhou	Hunan	3	136	132	186	166	202	136	46	30	59
81	183	102	Jinzhong	Shanxi	3	76	140	46	190	7	175	110	60	175
-5	98	103	Baoshan	Yunnan	3	29	101	9	25	90	18	212	210	181
64	168	104	Yulin	Shaanxi	3	26	17	107	75	3	179	126	200	190
33	138	105	Deyang	Sichuan	3	131	73	94	111	56	65	177	168	44
-13	93	106	Lincang	Yunnan	3	68	96	6	18	101	23	218	220	187
6	113	107	Dezhou	Shandong	3	105	46	134	23	152	148	137	170	57
21	129	108	Mianyang	Sichuan	3	154	54	84	51	42	47	175	163	97
85	194	109	Changzhi	Shanxi	3	57	117	18	181	10	195	107	70	160
30	140	110	Longyan	Fujian	3	60	187	120	195	25	70	83	127	122
NA	NA	111	Ankang	Shaanxi	3	15	43	167	109	13	5	169	208	208
-36	76	112	Chaozhou	Guangdong	3	191	32	138	14	190	109	184	180	22
22	135	113	Baoji	Shaanxi	3	81	48	104	107	30	56	210	184	68
9	123	114	Liaocheng	Shandong	3	92	79	119	54	181	150	125	182	42
-12	103	115	Quanzhou	Fujian	3	180	210	197	214	39	73	115	94	28
-11	105	116	Hengyang	Hunan	3	132	183	116	153	192	102	32	31	153
1	118	117	Huangshan	Anhui	3	133	114	27	90	160	67	156	64	141
3	121	118	Anqing	Anhui	3	142	71	112	80	67	114	146	135	87
14	133	119	Lishui	Zhejiang	3	28	150	57	116	200	151	87	106	112
42	162	120	Yibin	Sichuan	3	40	154	72	137	63	106	141	199	94
-25	96	121	Yiyang	Hunan	3	93	173	147	152	130	64	61	109	129
-84	38	122	Xiangtan	Hunan	3	225	138	17	155	150	76	26	22	137
-33	90	123	Binzhou	Shandong	3	186	115	146	101	180	177	148	140	13
-37	87	124	Weifang	Shandong	3	125	151	44	127	164	119	208	95	41
57	182	125	Tai'an	Shandong	3	138	157	156	183	138	85	37	114	95
27	153	126	Maoming	Guangdong	3	12	50	31	45	105	115	172	191	182
57	184	127	Panzhihua	Sichuan	3	22	18	97	174	41	72	228	228	91
NA	NA	128	Bazhong	Sichuan	3	5	9	157	65	77	69	151	197	213
37	166	129	Laibin	Guangxi	3	111	166	152	79	53	180	5	187	195
22	152	130	Zibo	Shandong	3	153	135	164	133	140	168	66	120	70
-91	40	131	Yichang	Hubei	3	181	57	198	36	188	82	139	155	35
44	176	132	Huangshi	Hubei	3	86	169	92	156	34	133	192	139	78

Change in Rank Over 1 Year	2018 Rank (Tier 3 Cities)	2019 Rank (Tier 3 Cities)	City	Province	City Tier	1-Year Job Growth (2016-2017)	5-Year Job Growth (2012-2017)	1-Year Wage Growth (2016-2017)	5-Year Wage Growth (2012-2017)	1-Year GRP Per capita Growth (2016-2017)	5-Year GRP Per capita Growth (2012-2017)	3-Year FDI Growth (2014-2017)	FDI/GRP (2017)	LQ for High-value Added Industry Employment (2017)
60	193	133	Pingdingshan	Henan	3	101	133	76	198	112	167	91	91	139
53	187	134	Chongzuo	Guangxi	3	48	164	64	87	6	24	219	222	180
12	147	135	Xianning	Hubei	3	118	141	78	91	69	50	164	190	119
-39	97	136	Jingzhou	Hubei	3	148	109	130	58	51	35	199	209	98
-25	112	137	Loudi	Hunan	3	103	146	140	161	207	145	22	53	166
NA	NA	138	Tongchuan	Shaanxi	3	114	105	143	141	38	174	56	150	157
-17	122	139	Nanyang	Henan	3	174	122	172	85	144	116	128	103	116
-4	136	140	Xinzhou	Shanxi	3	83	177	89	177	2	143	122	164	221
-16	125	141	Heze	Shandong	3	71	56	110	47	111	83	171	175	186
2	144	142	Anyang	Henan	3	196	139	171	157	73	120	100	89	145
13	156	143	Meizhou	Guangdong	3	67	70	37	34	198	128	180	161	146
13	157	144	Zhanjiang	Guangdong	3	135	99	122	72	129	57	165	189	152
-6	139	145	Yangjiang	Guangdong	3	123	49	99	35	195	117	178	179	113
69	215	146	Ziyang	Sichuan	3	144	144	96	165	134	104	127	143	155
-23	124	147	Yuxi	Yunnan	3	124	116	30	117	139	141	206	218	89
-3	145	148	Qujing	Yunnan	3	69	142	11	129	120	160	179	212	171
-8	141	149	Qiqihar	Heilongjiang	3	140	103	212	188	201	186	116	37	79
-19	131	150	Linyi	Shandong	3	170	69	183	74	158	140	166	169	66
73	224	151	Liaoyang	Liaoning	3	8	179	36	203	8	222	220	166	69
29	181	152	Guangyuan	Sichuan	3	39	82	145	100	83	98	155	165	209
32	185	153	Zigong	Sichuan	3	90	93	15	123	186	130	201	223	132
43	197	154	Weinan	Shaanxi	3	61	81	121	178	75	127	149	221	165
-69	86	155	Zhaoqing	Guangdong	3	185	61	176	55	206	134	207	148	27
-83	73	156	Jieyang	Guangdong	3	195	13	208	11	212	139	216	219	31
50	207	157	Jincheng	Shanxi	3	79	63	74	189	99	192	147	105	169
47	205	158	Linfen	Shanxi	3	85	186	63	160	106	199	94	128	183
NA	NA	159	Shangluo	Shaanxi	3	27	34	207	93	133	10	185	203	202
20	180	160	Jining	Shandong	3	146	120	142	171	142	126	153	131	144
-98	63	161	Shanwei	Guangdong	3	210	88	223	84	178	138	157	134	18
24	186	162	Baishan	Jilin	3	121	197	155	207	218	194	44	28	149
-12	151	163	Jilin	Jilin	3	163	174	141	184	221	207	62	25	88
7	171	164	Lijiang	Yunnan	3	54	145	21	86	97	58	227	227	219
26	191	165	Leshan	Sichuan	3	115	180	127	170	148	81	189	198	115

						RANKINGS BY COMPONENT								
Change in Rank Over 1 Year	2018 Rank (Tier 3 Cities)	2019 Rank (Tier 3 Cities)	City	Province	City Tier	1-Year Job Growth (2016-2017)	5-Year Job Growth (2012-2017)	1-Year Wage Growth (2016-2017)	5-Year Wage Growth (2012-2017)	1-Year GRP Per capita Growth (2016-2017)	5-Year GRP Per capita Growth (2012-2017)	3-Year FDI Growth (2014-2017)	FDI/GRP (2017)	LQ for High-value Added Industry Employment (2017)
-46	120	166	Erdos	Inner Mongolia	3	43	29	111	130	225	204	86	24	134
-18	149	167	Ya'an	Sichuan	3	35	97	180	114	68	92	194	216	192
-1	167	168	Shaoxing	Zhejiang	3	204	184	210	176	161	181	11	74	147
1	170	169	Hezhou	Guangxi	3	17	108	100	50	169	159	215	211	191
-24	146	170	Yueyang	Hunan	3	194	199	182	136	209	147	27	116	131
40	211	171	Yingkou	Liaoning	3	112	190	151	206	89	208	213	145	30
-18	154	172	Jinhua	Zhejiang	3	217	201	98	134	191	142	25	136	150
-47	126	173	Suihua	Heilongjiang	3	189	191	201	163	189	154	64	83	176
-172	2	174	Suining	Sichuan	3	227	77	24	92	22	22	150	177	148
27	202	175	Hechi	Guangxi	3	104	165	108	57	65	112	225	224	210
25	201	176	Zaozhuang	Shandong	3	167	137	153	158	149	170	136	173	170
11	188	177	Songyuan	Jilin	3	182	102	160	132	208	196	54	58	197
-10	168	178	Yulin	Guangxi	3	206	170	195	94	126	101	113	206	156
-1	178	179	Tangshan	Hebei	3	208	213	211	219	94	188	102	86	81
-61	119	180	Luzhou	Sichuan	3	223	125	219	66	141	79	9	151	185
-90	91	181	Guilin	Guangxi	3	110	89	125	43	214	166	191	202	143
-66	116	182	Yunfu	Guangdong	3	202	104	181	77	199	121	195	181	80
13	196	183	Dongying	Shandong	3	190	203	203	185	123	182	112	157	110
26	210	184	Datong	Shanxi	3	100	193	128	218	117	187	130	118	214
-165	20	185	Mudanjiang	Heilongjiang	3	212	176	214	168	211	163	101	32	164
-7	179	186	Cangzhou	Hebei	3	215	205	209	180	173	173	14	113	154
-22	165	187	Zhangjiakou	Hebei	3	209	214	199	187	159	178	76	68	172
-16	172	188	Shaoguan	Guangdong	3	162	185	166	154	203	165	193	167	103
-20	169	189	Baotou	Inner Mongolia	3	188	188	189	205	185	191	204	152	37
16	206	190	Yangquan	Shanxi	3	80	182	52	227	136	193	176	108	211
-74	117	191	Xianyang	Shaanxi	3	211	78	225	146	102	29	145	183	140
-15	177	192	Baicheng	Jilin	3	149	167	123	113	222	200	40	55	206
26	219	193	Huludao	Liaoning	3	183	155	163	162	64	202	217	160	102
-64	130	194	Xingtai	Hebei	3	222	218	217	204	37	122	82	66	193
-96	99	195	Chengde	Hebei	3	199	148	202	175	59	161	198	196	127
-164	32	196	Meishan	Sichuan	3	127	53	228	67	155	86	170	146	133
16	213	197	Huainan	Anhui	3	151	208	174	224	104	209	97	88	205

Change in Rank Over 1 Year	2018 Rank (Tier 3 Cities)	2019 Rank (Tier 3 Cities)	City	Province	City Tier	1-Year Job Growth (2016-2017)	5-Year Job Growth (2012-2017)	1-Year Wage Growth (2016-2017)	5-Year Wage Growth (2012-2017)	1-Year GRP Per capita Growth (2016-2017)	5-Year GRP Per capita Growth (2012-2017)	3-Year FDI Growth (2014-2017)	FDI/GRP (2017)	LQ for High-value Added Industry Employment (2017)
-179	19	198	Hengshui	Hebei	3	220	216	216	182	113	88	90	110	179
10	209	199	Jiamusi	Heilongjiang	3	143	225	178	186	46	96	221	213	200
30	230	200	Fuxin	Liaoning	3	91	226	191	225	205	224	129	23	204
2	203	201	Wuhai	Inner Mongolia	3	203	209	80	213	182	201	202	186	72
14	216	202	Jixi	Heilongjiang	3	216	215	23	217	196	205	23	59	223
-42	161	203	Handan	Hebei	3	221	181	222	172	146	189	98	62	162
-139	65	204	Zhoushan	Zhejiang	3	228	136	29	149	215	185	7	52	67
NA	NA	205	Shuangyashan	Heilongjiang	3	193	172	149	200	132	216	96	153	198
-16	190	206	Huaihua	Hunan	3	161	202	102	164	210	156	173	178	215
-52	155	207	Fangchenggang	Guangxi	3	214	211	136	199	125	54	222	226	196
-74	134	208	Baoding	Hebei	3	224	222	221	179	193	171	89	84	121
18	227	209	Fushun	Liaoning	3	171	219	177	215	88	220	214	188	96
8	218	210	Shuozhou	Shanxi	3	106	189	62	211	156	203	205	194	218
17	228	211	Benxi	Liaoning	3	159	217	193	222	194	226	224	207	46
-170	42	212	Yichun	Heilongjiang	3	137	206	165	193	171	198	168	204	225
-153	60	213	Neijiang	Sichuan	3	184	76	227	99	197	158	182	201	135
-2	212	214	Hegang	Heilongjiang	3	108	224	175	220	96	218	167	130	226
7	222	215	Chaoyang	Liaoning	3	173	221	192	223	154	217	197	149	151
-17	199	216	Bayannur	Inner Mongolia	3	160	198	42	196	224	210	42	99	217
-103	114	217	Tonghua	Jilin	3	226	194	226	197	216	197	57	21	114
5	223	218	Panjin	Liaoning	3	175	195	179	209	131	215	196	101	228
-2	217	219	Qitaihe	Heilongjiang	3	98	227	168	226	114	211	200	214	220
9	229	220	Anshan	Liaoning	3	205	220	220	216	79	228	223	192	50
-214	7	221	Jiuquan	Gansu	3	207	85	213	131	219	206	187	195	118
3	225	222	Dandong	Liaoning	3	213	223	218	221	168	221	203	96	108
-3	220	223	Jinzhou	Liaoning	3	218	207	215	212	179	213	209	132	117
2	226	224	Tieling	Liaoning	3	130	162	148	208	204	227	226	205	212
NA	NA	225	Lvliang	Shanxi	3	147	212	129	210	220	223	190	215	194
-26	200	226	Siping	Jilin	3	169	192	131	159	226	214	186	141	184
-35	192	227	Hulunbuir	Inner Mongolia	3	219	178	185	192	227	212	140	171	216
-30	198	228	Tongliao	Inner Mongolia	3	197	129	205	124	228	225	211	225	199

BEST-PERFORMING CITIES

Xi'an

APPENDIX: DATA AND METHODOLOGY

CLASSIFICATION AND DESIGNATION OF CITIES

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

There is a broad consensus, but no universal agreement, as to which cities sit atop this hierarchy in the first tier. This ranking focuses on cities classified as prefecture-level cities or above.[111] It defines first-tier cities as the municipalities directly governed by the Chinese central government (Beijing, Chongqing, Shanghai, and Tianjin). 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.[112] The rest of the cities in our sample therefore fall into the third-tier city category. It is widely known that first- and second-tier cities have typically received more resources from the Chinese central government, are shaped more heavily by central policies, and, as such, tend to possess more economic power than third-tier cities. Therefore, to make cities more comparable with their peers, we rank the first- and second-tier cities as one group and the third-tier cities as a separate group.

In 2017, China had a total of 661 cities, of which 298 are prefecture-level and above.[113] Given the change of the number of cities over time (cities are continuing to be incorporated) and missing or unavailable data for 33 cities (Ulanqab, Inner Mongolia; Daqing, Heilongjiang; Heihe, Heilongjiang; Suzhou, Anhui; Huanggang, Hubei; Sansa, Hainan; Danzhou, Hainan; Zhaotong, Yunnan; Lasa, Tibet; Rikaze, Tibet; Changdu, Tibet; Linzhi, Tibet; Shannan, Tibet; Naqu, Tibet; Yan'an, Shaanxi; Jiayuguan, Gansu; Jinchang, Gansu; Baiyin, Gansu; Tianshui, Gansu; Wuwei, Gansu; Zhangye, Gansu; Pingliang, Gansu; Qingyang, Gansu; Dingxi, Gansu; Longnan, Gansu; Haidong, Qinghai; Shizuishan, Ningxia; Wuzhong, Ningxia; Guyuan, Ningxia; Zhongwei, Ningxia; Karamay, Xinjiang; Tulufan, Xinjiang; Hami, Xinjiang), there are 265 cities left in our database. We further identified three outliers from the small- and medium-sized group—Baise, Guangxi, Pu'er, Yunnan, and Xining, Qinghai. Ultimately, we include only 262 cities in this ranking and report. We classify these 262 cities into three distinct tiers according to their respective economic development status. There are four first-tier cities, 30 second-tier cities, and 228 third-tier cities.

DATA AND VARIABLES

Our main sources of data are the 2013, 2015, 2017, and 2018 editions of the **China City Statistical Yearbook**. Each yearbook publishes data from the year before—e.g., the 2018 edition provides data for 2017. Due to data abnormality for some cities, we accordingly sought out other data sources and adjusted for consistency for those cities.

The Best-Performing Cities China composite index consists of nine indicators, which include seven growth measures and two stock measures. Specifically, the index measures the growth in jobs, wages, and gross regional product (GRP) per capita over one- (2016-2017) and five-year (2012-2017) periods. These six growth measures are commonly used to measure the performance of various economies. The one-year growth measures intend to capture 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 (2014-2017). An existing body of research suggests FDI plays an essential role in recent economic development in China.

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

The ninth and final component of the index is the LQ for high value-added industry employment in 2017. This report defines the following categories as high value-added industries: manufacturing; transport, storage and post; information transmission, computer services, and software; financial intermediation; real estate; and leasing and business services. LQ is a ratio that compares the concentration of a resource or activity (in this case employment) in a defined area to that of a larger area. In this index, an LQ greater than one indicates 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 one indicates a smaller share of employment. This ratio intuitively measures the ability of cities to generate greater economic benefits (such as profits and wages) for future development.

As discussed above, some unusual data reporting required alternative data sources and adjustments to ensure consistency. Specifically, certain 2013 data for the GRP and GRP per capita appeared to be inconsistent due to a change in estimation methods and other unidentifiable reasons. As a result, the 2017 data for these cities were not comparable across the study period and yielded ranking results that may not reflect the true performance status of these cities. To address these issues and better reflect the economic dynamics of these cities, we referred to other official statistical yearbooks and government websites to adjust some data points for affected cities.

METHODOLOGY IN DETAIL

Our ranking measures the economic performance of cities in China by focusing on nine indicators. These indicators are then combined into an index by which the 262 cities are ranked for the year 2017.

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

Constructing our ranking index by the weighted z-score method involved five steps. First, we calculated the arithmetic mean and the standard deviation for each indicator. Second, we took the value for each indicator and subtracted from it the arithmetic mean for that indicator and divided this differential by the standard deviation, yielding a z-score. Third, we assigned weights for each of the nine indicators (Table 3). In our index, we allocate more weight toward FDI and LQ variables given that various theoretical and empirical studies suggest these two sets of indicators have played a critical role in driving China's economic development and growth. Multiplying the z-scores for each indicator for all cities by assigned weight for each indicator yields the weighted z-scores. Fourth, we summed up the z-scores associated with each of the nine variables for each city and this gave us a sum of weighted z-scores for each city. Finally, based on the total weighted z-scores, we ranked 34 first- and second-tier cities in one group and 228 third-tier cities in another group.

Table 3. Indicators and their respective weights

Indicator	Weight
1-year job growth (2016-2017)	0.100
5-year job growth (2012-2017)	0.100
1-year wage growth (2016-2017)	0.100
5-year wage growth (2012-2017)	0.100
1-year GRP per capita growth (2016-2017)	0.100
5-year GRP per capita growth (2012-2017)	0.100
3-year FDI growth (2014-2017)	0.125
FDI/GRP (2017)	0.125
LQ for high value-added industry employment (2017)	0.150

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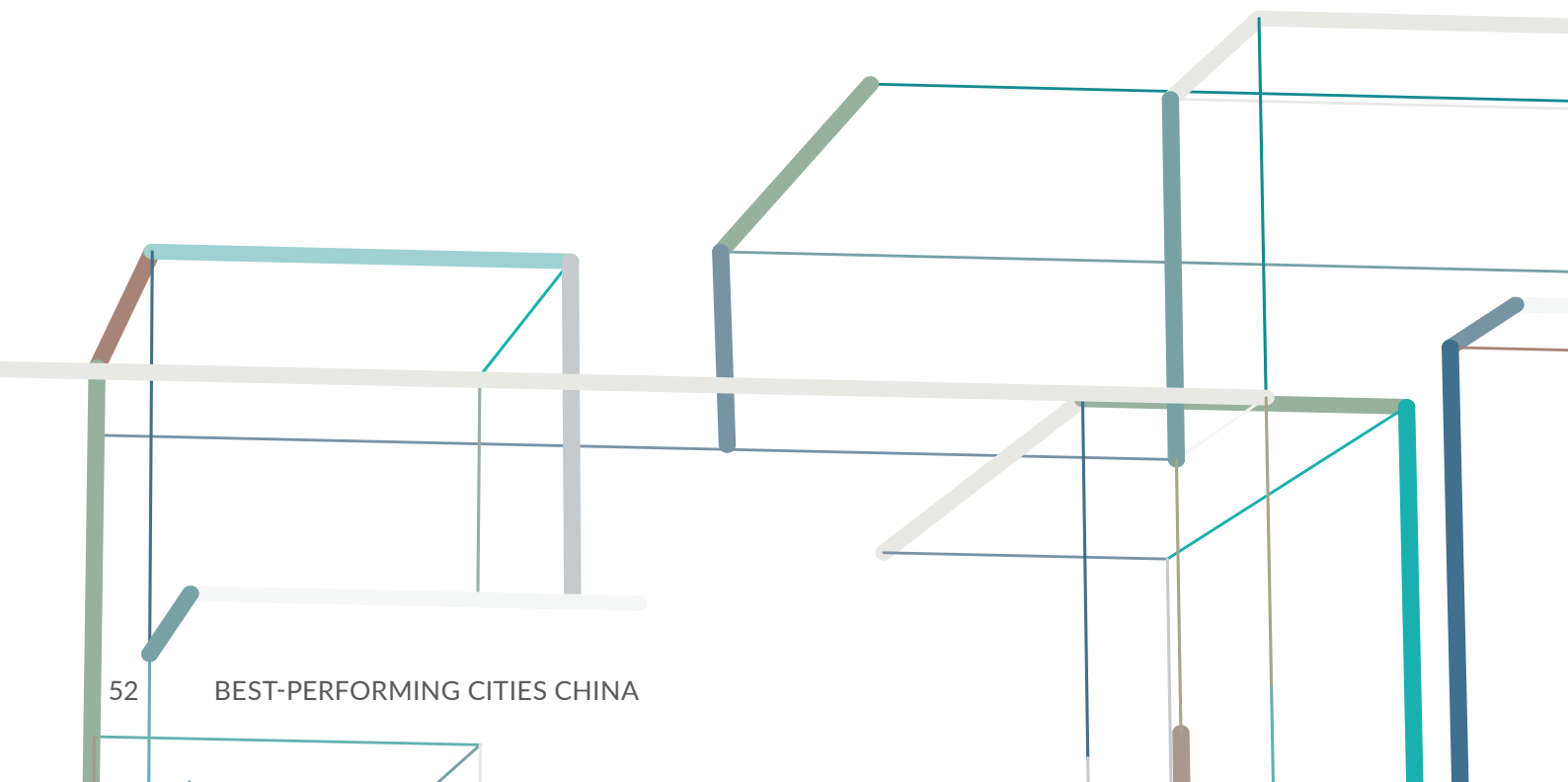
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