CHONGQING 2035

SPATIAL AND ECONOMIC TRANSFORMATION FOR A GLOBAL CITY

WORLD BANK GROUP
China’s remarkable economic success is inextricably linked to the country’s rapid urbanization: the urbanization rate grew from 31 percent in 1996 to almost 59 percent in 2018. Abundant labor, inexpensive land, and a massive boost in infrastructure investments fueled by local governments’ drive for investment have formed a conducive environment for such rapid growth.

While the economic transformation has thus far been enormously successful in eliminating extreme poverty and boosting shared prosperity, the accompanying rapid urbanization has been extremely resource-intensive and relies heavily on infrastructure investment. This type of development puts tremendous strains on the environment and is unsustainable in the long term. Recognizing the limitations of the current development model, the government has embarked on a new model of urbanization that prioritizes sustainability and human-centered urban development. Specifically, the model places emphasis on the better allocation of land, labor, and capital; the goal is to address the inefficient use of urban density that leads to low-density sprawl, ensure equal access to education and public services for urban and rural residents, restore cultural assets, and preserve each city’s unique identity.

China’s megacities, including Chongqing, are a critical part of this new model of urban growth, offering an opportunity to achieve a new typology of urbanization that is driven by efficiency, sustainability, and inclusiveness.

Chongqing’s strategic location in the southwest of inland China positions it as a gateway to China’s west, a key connection in the Yangtze River Economic Belt. As one of the largest cities in the world, and with four decades of experience in the delivery of basic urban services and sustainable and inclusive economic growth, Chongqing offers valuable lessons not just for other cities in China but globally.

Chongqing’s development trajectory generally mirrors China’s own transformative pathway. Over the past two decades, Chongqing has made an impressive transformation. Its gross domestic product per capita has increased 16-fold, from US$544 to US$8,908, and the urbanization rate has doubled, from 29.5 percent to 62.6 percent. In this rapid urbanization process, Chongqing has avoided some major challenges faced by first-tier Chinese cities, such as the scarcity of affordable housing. Chongqing’s ample public housing provision and land supply have allowed the city to absorb more than 10 million new urban dwellers while ensuring that housing costs remain affordable. Structurally, Chongqing has successfully transitioned from its
heavy industrial base and is now China’s major automotive and IT center, producing one-third of all laptops worldwide.

If the past 20-year period has entailed catching up to other major Chinese cities, in the next 15 to 20 years Chongqing has the capacity and opportunity to become a global city. While there is no one-size-fits-all model, leading cities such as London, New York, Paris, Tokyo, Singapore, and Hong Kong SAR, China, are characterized by common attributes such as economic competitiveness, environmental sustainability, and a high quality of life. Moreover, the compact urban form of these cities has provided a spatial structure that enhances the potential for economic agglomeration and resource efficiency.

To transition into a global city, Chongqing will face significant economic, social, and environmental challenges. For example, its current economic success is largely driven by massive fixed-asset investment and concentration on a few types of industries. Chongqing’s strategic land reserve is also depleting at a fast pace, in part due to its land-intensive urbanization. Like many other Chinese cities, Chongqing is facing severe challenges of an aging population, and risks growing old before growing rich.

However, these challenges can be overcome through a long-term strategy that systematically manages risks and creates pathways toward achieving the vision of becoming a global city. The World Bank Group is proud to have been a strong and long-term partner with the Chongqing Municipal Government since 1996. Our collaboration covers a wide range of infrastructure investments, policy reforms, technical assistance, and analytical reports.

This report, Chongqing 2035: Spatial and Economic Transformation for a Global City, is another step in our long-standing partnership. It provides a framework resting on five strategic pillars that create an enabling environment for long-term growth opportunities in Chongqing. The pillars are (1) increasing spatial efficiency and livability by promoting compact and transit-oriented development; (2) enhancing connectivity and economic integration to become one of China’s inland hubs for the ASEAN (Association of Southeast Asian Nations) region; (3) increasing R&D expenditure and moving up the production value chain; (4) allowing free flow of people and creating equal opportunities for all; and (5) decoupling growth from resource use to promote green and low-carbon growth.

I hope that this report will be a useful input for policy makers that will not only provide the basis for a strong, sustainable, and inclusive growth trajectory for the city, but also foster the continuing strong partnership between the municipal government and the World Bank Group. In this way, lessons learned from Chongqing’s unique urbanization experience can be shared across the East Asia and Pacific region and globally.
This report, a study of the urban development strategy for Chongqing Municipality, was prepared by a World Bank Group team led by Xueman Wang in collaboration with a team from Chongqing Productivity Development Center (CPDC) led by Zhou Linjun.

The lead authors of the Overview and four supporting reports are Serge Salat, Xueman Wang, and Zhou Linjun, with contributions from Li Xiangbei, Zhou Tao, Wang Lin, Kang Yin, Wang Wei, Chen Junhua, Xu Wei, and Li Wenxia.

The technical report (Chongqing 2035: Urban Growth Scenarios) was conducted by Calthorpe Analytics and China Sustainable Transportation Center (CSTC) and was led by Peter Calthorpe, with contributions from Erika Lewis, Jiang Yang, Gu Peiqing, and Han Zhiyuan. Technical information was partially provided by Chongqing Transport Planning Research Institute (CTPRI).

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The report was carried out under the guidance of Bert Hofman, World Bank Country Director for China, Mongolia and Korea; and Abhas Jha, Practice Manager for East Asia and Pacific. The team is grateful for the advice provided by Mr. Ede Jorge Ijjasz-Vasquez, Senior Director of the World Bank Group’s Social, Urban, Rural and Resilience Global Practice; Mr. Wu Jianong and Mrs. Tong Xiaoping, former Vice Mayors of Chongqing Municipal Government; and the Advisory Group that consists of Ma Shulin, He Zhiya, Yan Xiaoguang, Mi Benjia, Yu Ying, and Wang Mingying.

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3. A Strategy to Address Risks and Achieve Chongqing’s Vision

**Strategic pillar 1**
A spatial strategy that increases efficiency and quality of life by promoting a compact and human-centered development

**Strategic pillar 2**
A regional strategy to increase connectivity and economic integration

**Strategic pillar 3**
An innovation strategy to climb the value chain and create the conditions for a skilled labor force

**Strategic pillar 4**
A strategy that addresses potential labor force shortfalls and creates equal opportunities for all

**Strategic pillar 5**
A green and low-carbon growth strategy to decouple economic growth from resource use

**Conclusion**

**Annex 1**
Key Indicators Used for Benchmarking Chongqing with Global Cities and the Region

**References**

**Endnotes**
### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
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<tr>
<td>CPDC</td>
<td>Chongqing Productivity Development Center</td>
</tr>
<tr>
<td>CSTC</td>
<td>China Sustainable Transportation Center</td>
</tr>
<tr>
<td>CTPRI</td>
<td>Chongqing Transport Planning Research Institute</td>
</tr>
<tr>
<td>GDP</td>
<td>gross domestic product</td>
</tr>
<tr>
<td>GHG</td>
<td>greenhouse gas</td>
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<tr>
<td>MJ</td>
<td>megajoule</td>
</tr>
<tr>
<td>NBS</td>
<td>National Bureau of Statistics</td>
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<tr>
<td>PPP</td>
<td>purchasing power parity</td>
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<tr>
<td>R&amp;D</td>
<td>research and development</td>
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<tr>
<td>SAR</td>
<td>special administrative region</td>
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<td>WHO</td>
<td>World Health Organization</td>
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1. Introduction

**Chongqing: “A City of Mountains and Rivers” and One of the Largest Cities in the World**

Chongqing Municipality, located in the southwest of inland China and upstream on the Yangtze River, is on the scale of a small country, with an area of 82,400 km² and a population of 33.92 million. To put this into perspective, the municipality is as large as Austria and its population is close to that of Canada. Administratively, Chongqing shares the same status as Beijing, Shanghai, and Tianjin—a provincial city that reports directly to the central government.

Geographically, Chongqing is strategically positioned as a gateway to China’s west, a key connection in the Yangtze River Economic Belt, and a strategic base for China’s Belt and Road Initiative.

The municipality has a distinct topography and limited developable land. The Yangtze River flows for 679 km through the entire municipality and has its confluence with the Jialing and other rivers. As a city built on mountains and surrounded by rivers, Chongqing is known as a “city of mountains and rivers.” While the municipality is large, mountainous areas account for 76 percent and hilly areas for 18 percent, leaving only 6 percent of flat land suitable for development.

Over the past two decades, Chongqing has faced significant challenges, including the resettlement of over 1 million people and numerous enterprises due to the construction of the Three Gorges Dam. The bankruptcy of a number of state-owned enterprises, particularly in heavy industry, caused adverse economic and social effects. The environmental damage largely caused by its heavy industry was severe—in the 1990s, Chongqing had the highest level of acid rain in China and less than 6 percent of wastewater was treated (World Bank 2007).

Despite these challenges, Chongqing has made an extraordinary transformation. When Chongqing became a provincial city in 1997, its gross domestic product (GDP) per capita was less than US$600, and the urbanization rate was a mere 30 percent. Nearly 20 years later (2016), its GDP had grown to almost US$9,000, and its urbanization rate stood at 62 percent. The rate of treated wastewater is now 92
percent, and 100 percent for solid waste (Chongqing Municipal Government 2017).

This transformation has resulted in an important sectoral shift. The municipality’s economy, formerly based in agriculture and heavy industry, is now more balanced, with the secondary and tertiary industries contributing to 44 percent and 48 percent of GDP respectively (Figure 1). Using a successful cluster strategy that leverages the city’s supply chains and investment in strategic transport links, Chongqing has transitioned out of heavy industry and into automobiles and IT manufacturing. Today, Chongqing is the largest automobile and motorcycle manufacturing base in China, and it produces one-third of the world’s laptops and 90 percent of the world’s IT network terminals.

Despite rapid urbanization and growth, Chongqing has avoided some of the main challenges faced by the first-tier Chinese cities, such as high cost of living and housing. Chongqing’s ample public housing (Box 1) and land supply have allowed the municipality to absorb more than 10 million new urban residents while ensuring housing costs remain affordable. For example, the price of an apartment in Chongqing is one-seventh of the price in Beijing, one-sixth of the price in Shanghai, and one-third the price in Tianjin (Figure 2). Chongqing residents have more living space per person (43 m²) than Beijing (32 m²) and Shanghai (18 m²) residents.

Chongqing’s economic transformation goes hand in hand with improvements to social inclusiveness. As part of urban-rural integration, Chongqing provides “five guarantees” to migrant workers: the right to urban employment, retirement pensions, entitlement to public housing, education in city schools, and

### FIGURE 1 Industry Sectors, 1996 vs. 2016

![Industry Sectors, 1996 vs. 2016](image)

*Source: Chongqing Municipal Bureau of Statistics and NBS Survey Office in Chongqing, 2016.*

### FIGURE 2 Housing Prices in Major Chinese Cities (RMB/m²)

<table>
<thead>
<tr>
<th>City</th>
<th>Price (RMB/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijing</td>
<td>53,087</td>
</tr>
<tr>
<td>Shanghai</td>
<td>47,549</td>
</tr>
<tr>
<td>Nanjing</td>
<td>45,332</td>
</tr>
<tr>
<td>Tianjin</td>
<td>23,989</td>
</tr>
<tr>
<td>Guangzhou</td>
<td>22,584</td>
</tr>
<tr>
<td>Hangzhou</td>
<td>22,051</td>
</tr>
<tr>
<td>Wuhan</td>
<td>21,212</td>
</tr>
<tr>
<td>Chengdu</td>
<td>14,327</td>
</tr>
<tr>
<td>Chongqing</td>
<td>7,356</td>
</tr>
</tbody>
</table>


### BOX 1 Construction of Public Rental Housing in Chongqing

To enable new residents such as university and college graduates, rural migrants, and other groups to better integrate into the city, Chongqing has developed a two-tier housing system. Chongqing’s urban housing supply system is a combination of government assurance and market regulation that aims to provide housing for lower-income households, develop a housing supply market for middle-income households, and restrict housing purchases by high-income households. About 40 million m² of public rental housing was planned for construction within three years beginning in 2010, to ensure that lower- to middle-income groups (accounting for 30–40 percent of the city’s total population) would have access to public rental housing and resettlement housing provided by the government. By 2016, a cumulative total of 297,000 units of public rental housing had been completed, benefiting over 900,000 people from 329,000 lower-middle-income households.

*Source: Chongqing Public Rental Housing Department 2016.*
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health insurance. This policy aims to accommodate 10 million rural migrants into cities between 2010 and 2020 to reach an urbanization rate of 70 percent by 2020.

Chongqing's Rapid Transformation

Chongqing's impressive growth in the past 20 years reflects China's development pathway. Urbanization and GDP growth in Chongqing and China mirror each other, with urbanization doubling from approximately 30 percent to 60 percent. GDP per capita in Chongqing Municipality and China as a whole increased more than tenfold during this period, from US$500–700 to US$8,000–9,000. By sector, the two growth trajectories also strongly resemble each other, with primary industry reduced by half, to less than 10 percent of GDP, secondary industry remaining stable, and tertiary industry growing by around 10 percentage points (Table 1).

<table>
<thead>
<tr>
<th></th>
<th>Urbanization (%)</th>
<th>GDP per capita (US$)</th>
<th>Share of primary/secondary/tertiary industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>31</td>
<td>700</td>
<td>19 : 47 : 34</td>
</tr>
<tr>
<td>2016</td>
<td>56</td>
<td>8,100</td>
<td>9 : 48 : 43</td>
</tr>
<tr>
<td>Chongqing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>63</td>
<td>8,900</td>
<td>7 : 44 : 48</td>
</tr>
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</table>


As China transitions to a new growth model, its cities are also revisiting their growth objectives. After China's rapid development over the last decades, the country is moving away from the pursuit of high-speed growth at any cost to focus on achieving a higher quality of growth. China's cities, including Chongqing, are a critical part of this new model of growth, offering an opportunity for a new model of urbanization with a focus on efficiency, sustainability, and inclusivity.

A New Era: Vision 2035—Toward a Global City via Four Strategic Outcomes

Chongqing can move up the value chain to become a global city within the next 15 to 20 years. If the past two decades can be characterized as a period during which Chongqing was catching up with other major Chinese cities, the coming two decades will be a critical period for Chongqing to make another leap. This goal corresponds to the central government's overall strategic two-stage development plan for China, which covers the periods 2020 to 2035 and 2035 to 2050.

Chongqing Municipality's sheer size and large population, thriving economy, and increasing integration into the global economy are significant assets in its move toward becoming a global city. Chongqing's rapid rise in global stature has already been noted by many. In a 2016 study by the Brookings Institution and JP Morgan, which divided globalizing cities into seven categories, Chongqing was part of a group of cities (including Johannesburg and São Paulo) categorized as “Emerging Gateways” (Trujillo and Parilla 2016). Chongqing's national and global appeal is increasing—in 2017, Chongqing was the fastest-growing tourism city in the world, with 14 percent growth in its tourism sector (World Travel & Tourism Council 2017).

However, becoming a global city requires a well-designed policy strategy that builds on Chongqing's strong existing asset base and enables it to move to the next stage of development. The policy package can be structured around four strategic outcomes.

1. A hub for advanced manufacturing and knowledge-intensive services

Chongqing's comparative advantage has always been its production-oriented real economy. Leveraging its industrial base, Chongqing successfully upgraded its manufacturing sector to focus on IT and automobiles. In the next round of transformation, Chongqing can continue to build on its strengths in the real economy and aim to develop advanced manufacturing and technological capabilities.

At the same time, to become a globally competitive city, Chongqing must progressively climb the value chain. According to a survey by the World
Bank (Figure 3), high-end services account for a larger share of the economy in cities with per capita income exceeding US$20,000 (World Bank 2015b). Chongqing falls within the middle category, “production center.” To increase per capita incomes in Chongqing, policies will need to support the city’s transition to a “creative and financial services” profile with a larger share of the tertiary sector than the current 48 percent (Chongqing Municipal Bureau of Statistics and NBS Survey Office in Chongqing 2016).6

2. A base for broader ASEAN regional development

Chongqing is a strategic fulcrum for the development of western China, and a node on the Yangtze River Economic Belt as well as the Belt and Road Initiative. It has an extensive system of highway and rail networks that connect major markets. The recently completed highway corridor that links the city to southwest China will further facilitate trade between the country’s western region and the Association of Southeast Asian Nations (ASEAN). The Belt and Road Initiative offers Chongqing a strategic opportunity to position itself as part of broader regional development and to become an important hub in the integrated economy of the Chongqing-Chengdu corridor, Yangtze River Economic Belt, and fast-growing ASEAN region.

3. A city that provides opportunities for all

Despite progress, urbanization and economic growth in Chongqing have not removed significant inequalities in income, education, and health between rural and urban populations and between districts. On average, per capita disposable income is 2.7 times higher for Chongqing’s urban residents than for rural residents, a gap that has remained large despite Chongqing’s efforts in urban-rural integration (Chongqing Municipal Bureau of Statistics and NBS Survey Office in Chongqing 2016).7 Moreover, significant differences remain across Chongqing’s districts in access to health care and education, with better social services provided in central Chongqing.
It is important for Chongqing to close these gaps and create opportunities for all residents to participate in the city’s new stage of development. The United Nations Sustainable Development Goals call for inclusive cities, and while Chongqing has made significant progress in improving access to urban services and jobs among its large rural population, the municipality will need to do more to create equal access and the right enabling environment to ensure that growth can be equitably shared among all residents.

4. A city of mountains and rivers that is green and highly livable

Chongqing, like other cities throughout China, is paying a high price for its rapid urbanization, including the deterioration of environmental quality, resource wastage, high carbon emissions, and a car-oriented urban environment dominated by superblocks.

To become a global city and attract global talent, Chongqing must become a green and livable city. Being green and improving livability go hand in hand. A green environment, efficient resource use, good public infrastructure and services, and a vibrant urban life enhanced by the city’s unique urban fabric and historical assets are important factors in the competition for global talent. Without talent, Chongqing will not achieve its goal of becoming a global city. It is therefore imperative that Chongqing change its model of urban development to what the national government calls “quality growth” so it can reclaim its image as a city of mountains and rivers and become known as a city with a high quality of life.
Beautiful Chongqing, China
the City of Mountains & Rivers

MOUNTAINS & RIVERS