

Edited by
François Gipouloux



CHINA'S URBAN CENTURY

Governance, Environment and
Socio-Economic Imperatives



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Socio-Economic Imperatives

Edited by

François Gipouloux

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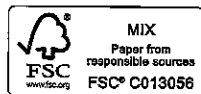
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The project has involved statistical data collection and extensive case studies in four cities (Shanghai, Chongqing, Kunming and Huangshan). Five international seminars, held alternately in China and in Europe, and scenario-building presentations were presented to various audiences of the EU and China's decision makers. The project also launched a website, <http://www.urbachina.eu/index.php/en/>, a blog, <http://urbachina.hypotheses.org/>, and a collection of working papers.

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François Gipouloux

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1. Introduction

François Gipouloux

1. INTRODUCTION

Since the Middle Ages in Europe, the city has been primarily a legal concept, associated with the idea of autonomy and freedom. This has not been the case in China. There, the city has been devised to express the majesty of power, and the urban network that extends throughout the territory responded primarily to administrative, religious, geomantic and military concerns (Li, X., 2008). Towns developed under business logic without really challenging this policy. The urban perimeter included many rural areas, for food safety reasons. This legacy is still visible today.

After a long stagnation during the 1958–78 decades, accelerated urbanization at work since the mid-1980s has been characterized by the interweaving of issues specific to economic reforms undertaken after Deng's return to power: the complex relationships of conflict and bargaining between central and local governments; the reform of property rights (1988), which allowed access to housing for millions of urban residents; and finally, the tax-sharing system (1994), which governs the financing of urban infrastructure and the extension of social security coverage.

The chapters in this volume are designed to analyse several key components of China's urbanization today: the institutional foundations of urbanization; the environmental and social infrastructures in urban areas; the question of heritage preservation and the conflict between traditional and modern lifestyles in Chinese cities; and finally the regional and international competitiveness of Chinese mega-cities. The materials that form the basis of these contributions combine statistical data collected at the national and local level as well as interviews conducted during field trips in Shanghai, Chongqing, Huangshan (Anhui) and Kunming (Yunnan) as part of the European project UrbaChina to understand constraints and issues of sustainable urbanization in China.

What is a city in China? The question is less trivial than one might think at first glance. It is not difficult to note the lack of consistency between the different definitions of the city depending on the country, but the

definition of a city has also evolved in China over the past decades. The criteria used to define the city limits have varied, and include not only residential buildings, factories and offices, but also large rural and agricultural populations. There is still a great deal of imprecision in the definition of the concept of the city in China: there are three realities to be taken into account: the built-up area, as opposed to the countryside; the administrative area (defined by the administrative perimeter of a city, which includes rural districts); and the functionality of the city, focusing on the non-agricultural activity of the urban population.

This is also why we decided to use the word *chengzhenhua* ('rurbanization') instead of *chengshihua* (urbanization) to designate urbanization in China. The former implies that both cities and towns are at the core of the urbanization process, and does not focus exclusively on the creation or the extension of big metropolises. Since the enormous proportion of the population living in towns and small cities, often with a rural *hukou*, strongly determines the urbanization process, *chengzhenhua* also conveys a sense of balance between large cities and small towns in the urbanization process that characterizes China.¹ It finally brings in an idea of the peculiar context in which urbanization is carried out in China, taking into account the coordination between urban and rural development, the urbanization of the countryside and, to some extent, the continuum between the city and the rural world that has been a key feature in Chinese history (Skinner, 1977; Rozman, 1974).²

It is therefore necessary to reassess in the Chinese context the role of urban infrastructures and their distribution throughout the country, the features of the Chinese city, the legal status of the land, the city-countryside gap, the issue of residency rights, the social rights of migrants, the question of the preservation of the urban heritage and the creation of an urban community, and finally, the international competitiveness of Chinese cities. All these themes are the subject of this volume.

2. SHIFT IN THE GROWTH MODEL AND CENTRAL LOCAL RELATIONS IN CHINA'S URBANIZATION

While urbanization is presented as the engine of China's growth for years to come, it will endorse the recognition of new constraints: the imperative is no longer just to feed and clothe the population, but to give access to urban markets to millions of rural consumers and unlock the potential of significant savings amassed by hundreds of millions of migrant workers established in cities but excluded from social services and access to property.

This challenge is much broader and concerns the inflection of the development model that has prevailed since the beginning of reform and opening up: a growth driven by exports and investment. The recent slowdown in Chinese growth adds urgency to such an adjustment. The simple extrapolation of recent years' high growth rate now seems unrealistic. In 2014, China's growth was only 7.4 per cent, and the IMF forecasts for 2015 a mere 6.8 per cent.³

However, urbanization cannot be reduced to the building of new cities, or the expansion of existing ones, nor the mere increase of the population living in cities, first because land resources are becoming scarce and the authorities have set a threshold not to be crossed: that of 120 million hectares of arable land to ensure food security of the country.⁴ The food security issue obviously has an impact on urbanization. It will induce an intensive use of the land and building of high-density cities, and a sturdy demand for mass transit facilities. Second, awareness of environmental issues prohibits a strategy of urbanization in purely quantitative terms.

In fact, as Gipouloux and Li argue in Chapter 2, a complex web of administrative, legal, social and financial issues is shaping the process of city creation in China. While the definition of urban population has varied over the different censuses, the administrative divisions of China's territory have strongly marked city development and ranking in the urban hierarchy. Tensions between industrialization and urbanization have also brought about specific features to city creation in China, along with a strong disproportion between manufacturing and service industry within the perimeter of Chinese cities, and the proliferation of central, local, public and private actors involved in the city creation process. Finally, Gipouloux and Li emphasize the contradiction between the fascination for technocratic concepts such as the 'smart', 'low-carbon' or 'compact' city, and the reality of urban design and urban planning, which is still often conceived in a bureaucratic way.

3. RETHINKING URBAN FUNCTIONS

The city in China since 1949 has been heavily affected by a Soviet conception of the economy, resulting in an overwhelming preponderance of manufacturing in the economy of urban centres, and in an atrophy of the service sector. This recently changed for cities such as Beijing or Shanghai, but it is still the case for most of the major provincial capitals. Moreover, since the 1994 tax reform and the sharing of revenue and expenditure, local authorities have worked to attract industries generating tax revenues they are eager to retain.

For decades, the Chinese city had to focus on industrial development. The result was the emergence of cities where there were no major differences between residential neighbourhoods and quarters in which were concentrated industrial activities. Planners feared that people looking for a job would be less attracted to cities where industrial development was neglected.

Better use of land, greater equity in the allocation of rights of residence, a sober use of resources and environment protection: these various problems will not be solved by a continuous injection of investments, massive as they may be. Rethinking the scale of urbanization, integrating the city's functionalities to disparate economic structures and dissimilar urban frameworks involves profound changes in local governance. In that respect, the approach set forth by the last plan for urbanization (March 2014) will test the ability to build multiple partnerships between organizations and government institutions at different levels, and to develop institutional mechanisms for a fully accepted use of city resources.

The impact of central–local relationship on urbanization in China is at the core of Pu and Xiong's contribution (Chapter 3). Since China is characterized by a fragmented and segmented hierarchical structure, consensus is reached through intense bargaining among various governmental departments. Pu and Xiong argue that relations between central and local governments are so complex that no single theory can fully capture the central–local relationship as far as urbanization is concerned. Fiscal decentralization and political centralization are for them the main contradiction urbanization has to face. Moreover, the problem of growth at any cost stresses the importance of infrastructure construction or new city building, while projects with long investment cycles and limited returns (education, social welfare and environmental protection) have often been neglected. They conclude on the question of excessive land urbanization and insufficient people urbanization. Their chapter focuses on the case study of Chongqing, where the economy has been growing at a very high rate (15 per cent from 1997 to 2006) but more than 13 million people are still employed in agriculture, and the urbanization of the two wings area of the city (north-east and south-east) is only 41.8 per cent and 34.6 per cent while central Chongqing has an urbanization rate (i.e. population with urban *hukou*) of 69 per cent. Although the Chongqing municipal government has created the *dipiao* (land ticket) system to preserve the threshold of arable land set by the central government by recovering arable land in the periphery, a clear redefinition of roles and functions of government at all levels remains to be implemented.

4. THE NEW CONFIGURATION OF URBAN DEVELOPMENT

Economic development alters the paralysing hierarchy that dominated the distribution of cities in the territory. China's urbanization is now characterized by the emergence of complex urban systems serving as a backbone for an entire region: Beijing, Tianjin, Shanghai, Guangzhou and Hong Kong assume a global function, and support the development of an economy oriented towards exports and the promotion of international trade. Chongqing, Shenyang, Dalian and a dozen other cities appear as urban centres serving macro-regions, but also assuming key positions in local development and the reduction of inter-regional differences. China then departed from a purely administrative to a functional conception of the region and the city. For a long time the importance of a city in China did not depend on its economic weight but on the quality of its connections with the centre, and the rank assigned to it by the political authorities.

However, the question of the gap between urbanization and industrialization remains. The distribution of cities within China shows a wide disparity between cities and 600 municipalities and nearly 20 000 villages each with fewer than 10 000 inhabitants. If multifunctional urban centres thrive on the coastline clusters (Pearl River Delta, Yangtze River Delta), in central and western China the situation is very different. Major cities are still conceived as massive concentrations of population (this is the resilience of the Soviet model) and there is no industrial base formed by networks of efficient and diversified outsourcing.

The couple industrialization–urbanization has produced marked differentiation, depending on the region, and actually displays two distortions: in western China, where divorce is evident between industrialization and urbanization, ghost towns; on the eastern seaboard, where industrial plants acquire land for very undervalued prices, urban sprawl.

5. THE SPECIFICS OF URBAN SPRAWL IN CHINA

Since the late 1970s, China's urbanization has proceeded through an inefficient use of land, and the provision of inexpensive industrial land by municipalities. During the late decade (2000–2010), urban residents have increased by 46 per cent and the construction area has doubled.⁵

In China, more than 60 per cent of the urban areas, including Chongqing, Shanghai, Tianjin and other large urban areas, declined in density.⁶ Indeed, as noted previously, more than 50 Chinese counties expanded spatially but simultaneously lost population. In contrast, despite a slight reduction in

overall urban population density, Hong Kong SAR, China, remained the densest urban area in the region, with an extremely high average density of 32 000 people per square kilometre in 2010.

While much industrial land has been made available to developers, urban built areas now cover 8 per cent of the usable land, a ratio that is only achieved by countries with a GDP per capita above \$40 000. Moreover, in 657 Chinese cities, the relationship between residential and industrial land is 1.5 to 1, while in cities such as Paris or Tokyo, this ratio reaches 5 or 6 to 1. Such an imbalance has contributed to significantly higher prices of residential property. The case of Kunming is revealing: the area of the municipality (298 square kilometres and 2.73 million people in 2011) will reach 430 square kilometres for a population of 4.3 million.⁷ Strong regional disparities appear in this regard in the ability to raise funds from guarantees provided by peri-urban land.

Yet the causes of China's urban sprawl are very different from the 'urban disease' that affected industrial countries in the second half of the twentieth century. The financing of China's urbanization is indeed based, locally, on two pillars: more or less forced sales of peri-urban land; and tax revenue derived from the establishment of industries within the urban perimeter.

The sale of rural plots at the city perimeter is made possible by the legal ambiguities of the status of land ownership. It generates comfortable profits for local authorities, through repayments made by developers. In addition, the creation of industrial and technology parks designed to attract industries within the city limits is meant to generate additional tax revenue.

Both procedures, often linked, explain that the construction industry represent a significant part of China's GDP. Their outcome is also visible in conspicuous aberrations known as 'ghost towns'. The case of Ordos, Inner Mongolia, received media attention, but other ghost towns appeared elsewhere, such as Tie Ling (Liaoning) or Jin Jing near Tianjin. The latter was supposed to embody the dream of the Chinese middle class, with the largest villa complex in Asia, golf courses and shopping centres, which remain empty. The mere building infrastructure is not enough to attract people, industries and jobs. These frantic grabs for peri-urban land have resulted in threats to the availability of arable land, and a highly irrational use of energy.

6. THE RISE OF TECHNOCRATIC RHETORIC

The preparation of master plans and zoning is often, as our field research in Shanghai and Chongqing shows, controlled by directors and engineers

who see urban development almost exclusively in material and quantitative terms: transport system implementation and housing construction. In the minds of planners, the persistence of the Soviet city, initially designed as a concentration of people, a cluster of factories and bureaucracies, governed by an administrative web of regulations that prohibits or limits access to migrants from the countryside, is still palpable. The gap is blatant between modernist rhetoric and the implementation of urban planning under productivist criteria.

7. THE CITY ENVIRONMENTAL AND SOCIAL INFRASTRUCTURES

Comparing examples from the European experience to the study of three Chinese cases (Kunming, Chongqing and Huangshan), Balula and Bina (Chapter 7) critically evaluate the theories and practices of the urbanization process. Pointing to a sharp contrast between the horizontal fragmentation and geographical mismatch of Chinese regions, they show, for sustainable urbanization, a gap between goals and reality. Local cadres' careers, still highly dependent on quantitative targets, unveil a neutralization of the goals set for sustainable urbanization under the impact of growth imperatives.

Curiously, planning mentalities coexist with enthusiasm for technocratic solutions. Abundantly relayed by the media, generously encouraged by numerous firms of foreign consultants, the fascination for low-carbon cities, compact cities, smart cities, often appears as a bureaucrat's dream: few listen to the people concerned; no significant progress of urban legislation is made; little social integration is achieved. Revealing as these solutions are, technocratic futuristic projects such as the 'city in the sky' (*tiankong chengshi*) in Changsha, include the construction of a tower of 202 floors, although the project has been recently delayed due to administrative issues.

Of course, not everything is negative in these modernist aspirations. In some cases, these endeavours are a genuine attempt to circumvent ideological constraints: the consulting of 'experts' independent of the administrative apparatus and attempts to improve the image of a city undoubtedly give rise to a reflection on promoting markers of urban identity and, ultimately, will allow a city to attract talents, investors and tourists. One can welcome the openness and skills of many Chinese mayors. But they can hardly go against the trends of the system when it comes to raising finance, energy consumption and the implementation of mass transportation systems. From district to district and from province to province,

duplication of growth-oriented urban models, supported by manufacturing and runaway property sectors, does more for one cadre's administrative career than originality in environment-friendly experiences or innovation for city branding.

Chen and Wang (Chapter 8) offer a case study of strategies adopted by local governments to balance environmental preservation and economic development in Huangshan City, a popular tourist destination in Anhui Province. The authors claim that local governments focused mostly on short-term objectives, and they highlight the importance of national and provincial funding schemes to protect the environment at the local level.

The *hukou* system not only influences migrants' housing conditions, but also determines their whole social security coverage. Yuan and Tan (Chapter 9) look at the reforms of the social security system and their consequences in Shanghai where migrants make up about 40 per cent of the population. One of the most interesting points they draw attention to is that, due to the insufficient commitment of the municipal government, recent social security reforms have increased labour costs and threatened small and medium enterprises.

Access to affordable housing is also a key issue. The government's latest goals aim to set up social housing for 23 per cent of the urban population against 14.3 per cent in 2014.⁸ As explained in Elosua and Ni's chapter (Chapter 10), during the 12th five-year plan the lack of affordable housing has become the focus of the central government, which has perceived that it could pose a threat to social stability, and has therefore planned to build 36 million units of affordable housing. However, the implementation of social housing policies varies across jurisdictions in the same manner as their economic background and development differ. Through a comparison of the implementation of social housing policies in Chongqing and Shanghai, Elosua and Ni illustrate how these differences have an impact on the size and on the social fabric of social housing projects in each of the two selected cities.

8. THE INEFFICIENT USE OF LAND

The change in land use in China determined by a specific mechanism: the conversion of collective land into state land as a prerequisite for urban real-estate operations, as Hussain and Gong (Chapter 4) discuss. This conversion process involves various players: local governments; rural households evicted from their land; and property developers. How is the notion of the declaration of public utility, for instance, accommodated in a context of repeated bargaining between central and local authorities? The

authors show that collective ownership, far from protecting the interests of peasants, proved a handicap during the transfer of agricultural land for urban development. Hussain and Gong examine the impact of public ownership on the process of urbanization. They pay particular attention to the distinction between state ownership and collective ownership, and observe that the status of collective land disadvantages the rural population by preventing it from enjoying the huge increase in land value caused by urbanization.

Reforming the status of land goes with the establishment of mechanisms to protect the rights and the establishment of a more comprehensive and clearer legal framework. Some advocate a full privatization of land so that farmers can possess a property to use as collateral for a loan to start a business. Other solutions are being tested, such as 'land tickets' (*dipiao*) in Chongqing, which are actually marketable securities enabling farmers to take advantage of urban development while ensuring that development does not reduce the amount of arable land available. Thus farmers who recover arable land receive compensation vouchers tradable in the *dipiao* market. In reality, they are peasants recovering arable areas by transforming land normally used in the construction of rural households but has been abandoned, such as in the *kong xin cun*, whose inhabitants left to work in the city. With this innovation, developers must acquire 'land tickets', *dipiao*, on the market before starting a construction site. The land ticket specifies a construction area that is equal to the amount of arable land created by the farmer in the countryside. The benefit from land ticket sales goes back to the farmers, allowing them to enjoy urban development while ensuring that real-estate development will not threaten the minimum threshold set to preserve arable land.

9. THE RESIDENCE REFORM OR THE *HUKOU* REFORM

Many of the post-1949 achievements in urbanization have been celebrated as amazing feats, as we are reminded by Chan in Chapter 5, while there were often unfounded claims, if not gross misinterpretations. Chan claims that the establishment of the *hukou* system in 1958 has blocked intergenerational social mobility. The target is now to integrate 100 million new urban *hukou* holders in the next six years. Chan estimates at about 17 million the annual conversion of rural to urban *hukou* in the years 2014–20. Chan's contribution focuses on the crucial question of small cities being able to perform the job, since most migrants continue to flock to mega-cities like Beijing and Shanghai where there are better job opportunities, especially in

the service sector. An interesting avenue to explore would be to reduce the concentration of major government functions in the largest cities.

While urban population is in the majority since 2012 in China, the issue of fake urbanization remains. Are migrants fully integrated into the urban space, what services can they claim, what rights are they excluded from? The question of *hukou*, the right of residence, appears crucial here, as is clearly delineated in Ai et al.'s chapter (Chapter 6). They underline the way ineffective institutions hamper the process of urbanization. The *hukou* system prevents migrant workers from acquiring housing, forcing them to live in urban villages with poor sanitary conditions. Also, the dual property market prevents farmers from reaping the fruits of urbanization. The authors underline the importance of the ongoing reforms regarding these institutions in order to facilitate migrant workers attaining full citizenship.

Outright abolition of the *hukou* system seems hardly feasible in the short term, but a gradual flexibility is under way in several major cities such as Shanghai, Chongqing and Chengdu. Migration flows obey a peculiar geography of employment opportunities, but also draw on variables such as the quality of social services, education, cost of living and so on. Gradual access to urban *hukou* will result in incentives to migrate to certain cities.

The Reglementation of the State Council Affairs (February 2012) already offers solutions differentiated according to the size of the city considered as a target by the urban *hukou* candidates and their families. But some in the countryside do not want to give up their rural *hukou*. Farmers, still largely excluded from the social security system, have traditionally considered rural *hukou* as insurance. However, keeping this rural identity has proved more interesting in recent years, first because farmers no longer have to pay the agricultural tax and second because agricultural subsidies have increased. Owning a parcel is no longer a burden to them. Moreover, economic development and urbanization have changed the behaviour of many professional farmers who can now work in the city and return home in the evening without having to give up their status and their plot of land.

In addition, farmers in peri-urban areas paradoxically take advantage of expulsion procedures. They are becoming increasingly reluctant to abandon a rural *hukou* if there is a possibility that their plots can be absorbed by the expansion of the nearby city. Some farmers have even converted into meal providers for migrants working on construction sites and urban low-income households, as described by Ai et al.

The ultimate goal of the reform of the *hukou* is to reduce inequalities in access to social security coverage. The problem is that the funding for this programme is expensive, while local governments are already heavily

indebted. How will the costs of urbanization be shared between central government, local governments and the private sector?

10. URBAN HERITAGE AND THE PRODUCTION OF URBAN SPACE AND GOVERNANCE OF URBAN COMMUNITIES

Chinese cities are often 'cities without history', as observed by the Dutch architect Neville Mars (Mars and Hornsby, 2008). While local governments are increasingly aware of the necessity to create a city brand, few components of this strategy are visible beyond the mere declaration of intent, including a city heritage, the creation of core values, and the use of efficient communication tools.

Yet, as analysed in Ged and Shao's chapter (Chapter 11), Shanghai's protection of its architectural heritage has improved dramatically during the last two decades, along with the rapid metamorphosis of the city. Speculation and the real-estate boom have often hampered the recognition of the intrinsic value of Shanghai's tangible and intangible heritage. At the same time, the rarity of some forms of urban dwellings that have resulted from massive demolition have led to their emergence as urban treasures cherished by locals and tourists. Civil society has also emerged as an important actor in the protection of some urban assets, such as the city's industrial sites. However, as Ged and Shao emphasize, there is an increasing need to pay more attention to the former population of the historic centre, whose presence is gradually disappearing due to the process of gentrification now taking place in the city.

Ai and Pillet's contribution (Chapter 12) focuses on strategies and actors behind brownfield rehabilitation in the case of Dadukou District in Chongqing, where the Chongqing iron and steel factory was based. The authors analyse the top-down strategy adopted by the government and the power dynamics among stakeholders to make good the shortfall of Dadukou with cultural and creative industries. Furthermore, their chapter explores the market-oriented and the symbolic and social visions of the process of industrial heritage conservation in the case of Dadukou.

Another manifestation of urban sprawl is the 'urban village' (*chengzhong cun*), where high concentrations of migrants have access to only very basic infrastructure and inadequate social services. The anxiety of residents regarding maintenance of urban amenities and the demolition risk of their neighbourhoods, highlighted by Feuchtwang et al. in their contribution to this volume (Chapter 13), illustrates the ambiguity of the aspirations of

the newcomers. The new urban governance must also take into account the diversity of actors on the urban scene: evicted farmers, homeowners' associations, environmental activists demonstrating in Kunming against the establishment of a refinery in Anning, about 30 miles from the city, in May 2013.

11. RESOURCES AND ENVIRONMENT: POLLUTION AND ECOLOGICAL IMBALANCES

Increasing resource constraints and inadequate resource using have led to serious environment degradation in China. According to international standards,⁹ in 669 cities of China there are at least 400 water supply shortage cities and 110 severe water shortages.¹⁰ At the same time, the consumption of city water resources, especially industrial consumption, showed a continuous upward trend. From 2000 to 2010, industrial water consumption increased from 113.81 billion cubic metres to 144.53 billion cubic metres; annual consumption increased by 26.99 per cent.¹¹

In recent years, the land resources that can be used for urban development have dwindled, and the cost of land development is rising quickly. From 2001 to 2014, state-owned construction land transfer price rose from RMB 1.44 million to RMB 15.78 million per hectare, increasing by 10.96 times.¹²

Haze has become a focus problem of common concern in recent years. The amount of total suspended particulate matter in Chinese cities is far higher than that of developed countries, and developing countries with a good environment. In Beijing, Shanghai and Tianjin, for example, the amount of total suspended particulate matter, respectively, is 73, 60 and 103, only slightly lower than some of the cities of India and Egypt. The average level in the cities of the developed countries in Europe and North America is about 25 to 35. In addition, the industrial 'three wastes' emissions, kitchen waste and production waste are all important environmental problems of Chinese urban development in the near future.

What criteria should be retained for sustainable urbanization? Are the indicators used by the Chinese authorities credible? Urbanization and economic development have been accompanied by a sharp deterioration in China's environment. As highlighted in a recent study on air quality in China, nearly 90 per cent of China's cities suffer from air pollution. Only the poorest or less developed cities can pride themselves on providing their citizens with good air quality. This raises the question of sustainable urbanization, which has become a major concern for the urban

population. The conditions that preserve the quality of the environment in the small city-district of Huangshan (Anhui) are crucial, as shown in Chen Hongfeng and Wang Jingya's chapter (Chapter 8), while tourism is a vital economic resource for the municipality.

If we compare the situation of Japanese cities in the 1970s with that of today, it is clear that environmental degradation is not always an irreversible process. Forums with foreign practitioners and exchanges of experience between mayors are multiplying, but to reverse the trend requires a radical change in mentality and therefore time and considerable investment, the impact of which is not perceptible immediately.

12. FUNDING OF URBANIZATION AND LOCAL GOVERNMENT DEBT

How will this tremendous endeavour towards urbanization be financed? As Hu Ying (Chapter 14) informs us, local finance has been a driving force behind urbanization. While local governments are not allowed to issue bonds, they have developed unorthodox methods to finance urbanization and infrastructures, with a growing indebtedness. Land leasing income was included in local government budgets and made up almost half of the local fiscal revenue in 2012. She also concludes that this financing model is no longer sustainable and warns that local financing platforms are subject to great debt risks.

Local governments, as mentioned earlier, have adopted a strategy of all-round growth difficult to sustain over the long run. The system values quantitative growth over balanced, environmentally friendly development. The plannist ideology is still predominant: the common view among local authorities is that building infrastructure systems and industrial parks will increase property values and attract investors. To finance these huge operations, municipal governments are seeking bank support, and are also setting up financial vehicle companies, because they are not allowed to issue bonds directly. Recently, they have appealed to shadow banking (*yingzi yinhang*).

The collateral for these loans often consists of land resources. But here is the rub: technology parks and, more specifically, industries lured by local governments within the urban perimeter are expected to generate tax revenue, allowing comfortable contracts for sale of peri-urban land to real-estate developers. By the same token, these revenues allow corruption to spread because of the privileged access of local authorities to factors of production: land, resources and energy.

But the machine has seized up. Access to cheap labour is no longer as

easy as before, land is not as abundant, and awareness of environmental problems makes it difficult to install new production units. The indebtedness of local authorities increased at an annual rate of 33 per cent from 1997 to 2010.¹³ A second audit conducted by the National Audit Office in 2013 showed a debt of RMB 12 billion, increasing by 12 per cent annually from 2010 to 2012. However, Xiang Huaicheng, former Minister of Finance, said in April 2012 that the local government debt probably exceeded RMB 20 billion.¹⁴ In other words, the debt-to-GDP ratio increased, indicating that China is wasting more resources in continuing to sustain its economic growth.

This situation increases the risk of financial crisis, as the National Audit Office¹⁵ estimates that 37.6 per cent of local government financial vehicles (*difang zhengfu rongzi pingtai gongsi*) 'are illiquid or difficult to liquidate'.¹⁶ However, the risk of systemic crisis is limited by the fact that the debt is in the hands of China and that the savings rate is above 50 per cent of GDP.

13. INTERNATIONAL COMPARISONS: STIMULUS OR ALIBI?

The reference to the European experience is also present in several contributions to this volume, inspiring comparisons and leading to new questions: is the rate of urbanization a good indicator of the level of economic development? Brazil (87 per cent, 2010) and Iran (69 per cent, 2011) are highly urbanized but can hardly be considered as fully developed economies. Are extra large cities the solution, as many decision makers in China seem to think? How to develop the potential of medium-sized cities? How to create urban amenities worthy of the name, accessible to everyone? How to preserve an architectural heritage in distress in many Chinese cities?

There are also several question marks over migrants' decision to flock to mega-cities (Beijing, Shanghai, Guangzhou and Shenzhen), instead of small and medium-sized cities, as prescribed by the authorities. As a matter of fact, China's population has converged on three coastal mega-regions: Pearl River Delta, Yangtze Delta and Bohai Wan. China's total population in those three regions was only 18.2 per cent of the total in 2012. China's Pearl River Delta has overtaken Tokyo to become the world's largest urban area in both size and population, according to a recent report from the World Bank (World Bank, 2015). The mega-city, which covers a significant part of China's manufacturing heartland and includes the cities of Shenzhen, Guangzhou, Foshan and Dongguan, is now home to more people than the countries of Canada, Argentina or Australia.

While cities are less dependent on their hinterland for their resources and their markets, a new hierarchy of urban centres is emerging, based not only on their rank at national level, but also on the intensity of their international connections, as shown in relation to Shanghai in Du, Huang and Xu's chapter (Chapter 15). China is affected by the compression of space and time, which is one of the main features of globalization. Urban centres, especially in the case of very large cities of the seaboard, appear as 'nodes' in a bundle of local and global interactions. In this new configuration, local or national competitiveness is not only the result of privileged access to resources; it also builds on the 'institutional thickness' of an intangible ecosystem that combines history and culture. Here again, China's experience in urbanization cannot be understood through a unique and consistent framework.

How is the process of urban innovation unfolding in China? What makes a city a world? While the interaction between urban elites and local traders or producers has produced peculiar features in Western Europe through the competition between urban governments and institutional innovation, in China, the city has never been incorporated (Li, X., 2008).

The city is about connectivity. At the beginning of the twentieth century, the largest American cities were situated on major waterways. Historically, cities in China were also at the crossroads of important ways of communication. Financial centres were places where the tradeoff between risk and return was boldly assessed and managed (Cassis, 2006). What will happen to Chinese cities when de-industrialization affects the country? How will cities reinvent themselves? What are the keys of city resilience? A tradition of entrepreneurship, especially in the apparel industry, has been at the core of the reinvention of New York (Chinnitz, 1961). The same pattern can be observed in the case of Hong Kong. But how could it be the case for Shanghai, where the state sector has been prominent? How could it be the case for Beijing, where the footprint of politics on the city landscape is omnipresent?

Intellectual fermentation has been at the origin of the vitality of vibrant cities of the Middle Ages. Genoa, Venice and Florence attracted the brightest minds of Europe. In other words, can we have open cities in a post-totalitarian state? How can local autonomy flourish in a fragmented authoritarian nation?

Clearly, new horizons of research on urbanization in China are emerging, incorporating multidisciplinary approaches: the law related to urbanization and to land reform; preserving the architectural heritage; new ways of financing cities. Based on Sino-foreign cooperation, these studies must also display lucidity about the system's ability to derail the most daring innovations: public-private partnerships are highly fashionable in China.

Their impact on the huge infrastructure needs, but also on the management of the environment, has yet to be measured, as well as the areas they open up for corruption. Despite the awareness of the crisis and the urgency to find new solutions, the clash between the desire to assimilate the latest technologies and the planner behaviour of local authorities reveals the limits of institutions in charge of China's urbanization. The autonomy of the Chinese city, in its design and governance, is still in the embryonic stage.

NOTES

1. 'You chengshihua dao chengzhenhua' [From 'Urbanization' to 'Rurbanization'] (2014), *Renmin wang*, 16 October.
2. For an exhaustive review of urbanization policies since 1949 in China, see Fu et al. (2009). See also Niu et al. (2009) and Xiao (2011).
3. Toh, Han Shih (2015), 'IMF trims forecast for China's GDP growth, raises outlook for US', *SCMP*, 20 January, accessed 12 March 2015 at <http://www.scmp.com/business/economy/article/1682780/imf-trims-forecast-chinas-gdp-growth-2015-and-2016-raises-united>.
4. Declaration of Jiang Daming, Minister of Land and Resources, *China Daily*, 11 December 2014.
5. 'Population census in 2000, in 2010' (2014), Jiangyiyuanshi [Member of CAE] bixukongzhichengshijianzhuzongliang, 24 February.
6. 'Zhongguo chengshimidu jiqi bianhua' [The urban population density in China and its changes] (2006), *Chengshi wenti*, 10, pp. 17–22.
7. *Zhongguo chengshi tongji nianjian 2012* [China City Statistical Yearbook in 2012] (2013), Beijing: Zhongguo tongji chubanshe, pp. 19, 89; *Kunming chengshi zongti guihua 2011–2020* [General plan for Kunming 2011–2020] (2012), 22 November.
8. *Xinhua News* (2015), Wang Tao, 30 January.
9. International standards here are the Falkenmark indicator, adopted by the United Nations: 'Hydrologists typically assess scarcity by looking at the population–water equation. An area is experiencing water stress when annual water supplies drop below 1700 m³ per person. When annual water supplies drop below 1000 m³ per person, the population faces water scarcity, and below 500 cubic metres "absolute scarcity"' (United Nations, *International Decade for Action 'Water for Life' 2005–2015: Water scarcity*, 2014, available at <http://www.un.org/waterforlifedecade/scarcity.shtml> (accessed on 2 July 2015).
10. Duanque yu langfei bingcun jianshe jieshuixing shehui keburonghuan [Coexistence of shortage and waste, interview with Wang Shucheng, the Chinese Minister of Water Resources] (2007), 27 February.
11. '2000 nian zhongguo shuiziyuan gongbao' [China Water Resources Bulletin 2000] (2001), *Zhongguo wang*, 18 October; '2010 nian zhongguo shuiziyuan gongbao' [China Water Resources Bulletin 2010] (2012), 26 April.
12. '13 nian zengzhang chao 30 bei jutikaizhi jingshi hutuzhang' [The land transfer price increased 30 times in 13 years, the accounts are a mess] (2014), *Xinhua net*, 27 August.
13. 'Quanguo difang zhengfuxing zhaiwu shenji jieguo' [The audit result of indebtedness of local authorities in 2010] (2012), *Zhonghua renmingongheguo shenjishu banggongting* [National Audit Office, People's Republic of China], Beijing, p. 2.
14. Statement at the Boao Forum to Asia (2013). Reported in *Bloomberg News*, 7 April.
15. '36 ge difang zhengfu benji zhengfuxing shenji jieguo' [Audit result of 36 local

- government debt] (2013), *Zhonghua renmingongheguo shenjishu banggongting* [National Audit Office, People's Republic of China], 10 June, Beijing, p. 2.
16. Local government financial vehicles have been created by local governments for financing infrastructures and real-estate programmes. However, the problematic profitability of these operations increases the risk of bankruptcy.