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URBANIZATION

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Abstract

This paper examines urban development in China through the perspective of economic restructuring. First a review of the establishment of an export-oriented economy and its institutional foundation vis-à-vis fiscal and land policies. Then an examination of the basic characteristics of the world's factory model and how it defines the process of urbanization and urban development. Comparisons of contrasting spatial forms of upper market commodity housing estates and migrants' villages point toward a hybrid urban form that essentially reflects the contradiction of the world's factory regime. Finally some speculations about the transition of the world's factory regime and the impact of recent global economic crisis on China's urban development.

Keywords: The Chinese city; economic development; economic restructuring; housing development; land development; the impact of global economic crisis.

The process of Chinese urbanization had been slow, driven by state-led industrialization until 1979 when the economic reform started. The slow urbanization process is a deliberate strategy to "economize urbanization" (Chan, 1994), namely to achieve industrialization without urbanization because consumption under the specific state industrial development regime was regarded as wasteful and unproductive (Wu, 1997). This resulted in a phenomenon of "under-urbanization," similar to the one seen in other

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Table 1. The speed of urbanization in China

Periods	Annual increase of urban and town population (million)	Percentage point added to the urbanization level (% point) per year
1981–1985	11.91	0.86
1986–1990	10.20	0.54
1991–1995	9.96	0.53
1996–2000	21.46	1.44
2001–2005	20.61	1.35
2006–2009	14.94	0.90

Source: CNSB, various years; Wei (2010, p. 3).

Central and Eastern European countries. Before 1979 the ratio of urban population to the total population was maintained below 19%. Since 1996, Chinese urbanization has entered a fast growth period, averaging at 1.25% point per year, raising the ratio of urban population to 46.6% in 2009 (Wei, 2010) (Table 1), although the exact rate and speed of urbanization in China is a complicated issue that depends on the spatial definition of urban and rural areas (see Zhou and Ma, 2003; Chan, 2010a).

The post-reform urbanization process is characterized by increasing dominance of large cities in the urban system. This is attributed to some basic features of Chinese urbanization (Chan, 2010a). First, China operates a hierarchical top-down policy control, despite significant devolution of economic decision making to lower government. The higher the position in the hierarchy is, the more powerful the ability to capture mobile resources. Second, the appointment of local officials is made by the upper levels of government. Because of this top-down control and the switch of the evaluation to economic performance in the process of cadre appointment, local officials strive to fulfil economic targets, expand the economic scales of their localities, and elevate their localities in the hierarchy of the administrative system. By doing so, local officials can accumulate political capital to get promoted. There is then a very strong growth mentality. We will further argue that such a growth mentality is more deeply rooted in an exported-oriented approach to urban and economic development.

The End of Constrained Urbanization

China's economic reform originated from the rural sector. The land contract system released a significant amount of redundant agricultural laborers and started the wave of rural urbanization in the 1980s. Such an urbanization process, referred to as "urbanization from below" (Ma and Fan, 1994), is

different from the one driven by state-led industrialization in the planned economy. Essentially, rural urbanization is driven by the process of the development of non-agricultural activities in the rural area. The release of agricultural labor force was absorbed through *in situ* rural manufacturing development, creating a phenomenon of “leaving the land but not the village.” Behind rural urbanization is the development of township and village enterprises (TVEs). In the Yangtze River Delta (especially southern Jiangsu), TVEs formed the base of the rural collective economy, while in Zhejiang province (particularly in southern area near Wenzhou), privately owned small enterprises were behind rural industrialization (thus known as the “Wenzhou model”), and in the Pearl River Delta, overseas investment from Hong Kong promoted so-called “exourbanization” (Sit and Yang, 1997). The development of rural small towns created the dual-track urbanization in China (Shen *et al.*, 2006): on the one hand, there has been a tendency of dominance of large cities under the formal urbanization process combined with state project and foreign capital (Lin, 2002); on the other hand, dispersed urbanization process created many small towns and special market towns. Since 2005, the new wave of constructing the “new countryside” began to extend infrastructure to the rural area, with the attempt to consolidate and merge scattered villages into designated towns.

Such a rural urbanization process came to an end when massive privatization of rural collectives occurred. Privatization picked up momentum since the mid-1990s, and fundamentally changed the nature of the earlier “Sunan model” which ceased to exist (Shen and Ma, 2005). The TVEs virtually collapsed after pervasive ownership transformation (*zhuan zhi*). Replacing this endogenous urbanization is large-scale land development driven by foreign investment. Industrial parks are developed to serve foreign and overseas investors. Accompanying the collapse of rural collectives is the demise of village level governance and up-scaling of control to the central towns and cities. The low efficiency of scattered rural industrialization, namely “leaving the land but not the village,” was recognized. The newly established system of land leasing consolidated the power of municipalities and counties to forge large-scale development based on industrial zones. Since the late 1990s, there have been waves to establish industrial and export zones (Cartier, 2001), leading to large-scale land development (Hsing, 2006).

The Establishment of World’s Factory and Dynamics of Urban Development

China’s joining WTO symbolizes the establishment of the world’s factory regime, which heavily depends upon foreign investment and export as the

driver for economic growth. The export-oriented development has been remarkably effective, capitalizing China's comparative advantages of cheaper and abundant labor force and overcoming the constraints of capital and market. By achieving a status of world's factory, China has significantly expanded its production capacities. At the core of this world's factory regime are entrepreneurial local governments who play the role of development organizer. Through institutional devolution, they are becoming independent and self-motivated developers. The tax-sharing system effectively enforces local governments to expand their own tax revenue through "discretionary" land development, although land development is now increasingly subject to the central control through land quotas.

The dependence upon land revenue results in the so-called "fiscal regime based on land development" (*tudi caizheng*). Inter-city competition and incentive of land revenue dissolves possible local resistance, which is known as NIMBYism in Western developed economies. The legacy of strong state land control allows the local government to become the *de facto* land owner and developer who monopolizes the land supply. Using the instrument of cheaper land, entrepreneurial local governments strive to attract foreign and overseas investors. More precisely, in order to attract foreign capital in manufacturing sectors, the local government offers significant concession in land leasing premium. In the early 1990s, some cities even leased land at "zero value." In the densely developed area such as the Yangtze River Delta, competition for industrial investment has been particularly fierce (Zhang and Wu, 2006), leading to the net loss of value in land leasing because the actual cost of development exceeds the leasing fee. There are two explanations for this aggressive land leasing behavior. First, attracting foreign investment can ensure the increase in GDP, very much desired by local political leaders, because the promotion of local cadres is based on their performance in economic development (Chien, 2008). Second, the local government, while not getting a full land value from leasing of industrial land, can get the value-added tax and cooperate tax from manufacturing industries. This effectively converts once-for-all land leasing premium into a long-term source of revenue. However, under the current tax-sharing arrangement, the local government can only retain 25% of value-added tax and corporate tax (Tao *et al.*, 2009). Land leasing through the "spill-over effect," i.e., the development of industries promoting urban development, increases the retail sale tax and commercial and residential land value, while the retail sale tax and the premium of land leasing stay local entirely. The inflated commercial and residential land values can greatly expand the local revenue which is now heavily dependent upon the land leasing fee.

Thus the local government operates very much like a land development corporation. The land development business includes the following steps:

1. use cheap and subsidized land to attract investment in manufacturing industries;
2. expand the overall GDP volume and in turn raise the land value of the city through industrial development;
3. lease the serviced land to commercial and residential markets through auction or bidding so as to capture the differentiate rent between leased land and rural land;
4. use the land revenue to invest in infrastructure while filling the local tax gap;
5. acquire rural land through compulsory purchase at a lower value and convert the required rural land into serviced land so as to raise the land value and attract investment, leading to a premium price for commercial and residential development.

To complete the above circle of development, the local government needs the labor force for industrial development. Under the urban-rural duality, the cost of rural labor is suppressed, because the rural labor is confined to the traditional agricultural sector, and the supply of migrant labor is relatively abundant. The arrival of capital in the locality means that the migrant labor force is almost automatically made available and brought into the production process without much difficulty until recent migrant labor shortage. Migrants are not entitled to the welfare provided in the urban area and depend on the market for basic needs such as housing, education, and healthcare. The operation of world's factory means local governments are business-oriented, targeting the GDP growth rate and land revenue generation, while using sustained fast growth to ensure job creation and in turn maintaining social stability.

The migrant labor force, while physically working in the world's factory, is invisible in two ways: first, low incomes make them ineffective consumers. They are not, for example, the customers of commodity housing beyond their means. Most migrants live in private rental housing in so-called "urban villages," developed informally by local farmers based on their assigned plots for farmers' housing. Second, they are not active citizens and have no voting rights. Because cheaper land supply is used as an instrument to attract investment and promote growth, the result is inevitably over-consumption of agricultural land, leading to scattered and sprawled growth patterns. Rather than developing a compact city as the Chinese city was in the past, new urban

development is characterized by massive expansion of the built-up areas. In rapidly industrializing areas, urban development literally takes the form of factory building with large parcels and wide grid roads. To justify the speed of growth, often exceeding the national standard of city planning, local governments organize and prepare non-statutory plans such as urban conceptual or strategic development, which often propose the development of new towns or new districts. Through administrative annexation, the municipality strives to expand its control over the rest of its city-region, forming so-called “urban clusters” or the system of cities.

The dynamics of urban development rely on the land development as the driver. Figure 1 shows the total land leased on the market from 1995–2009. It can be seen that since 2001 the amount of land leased has increased steadily, despite the tightening policy in 2004, which reduced the total amount of land leasing in that year and 2005. However, in 2006, the land leasing area increased significantly. Despite a dip in 2008 in the midst of financial crisis, land leasing started to increase again under the demand for land under the stimulus package. All these account only for the formal land market. In fact, despite the control of the central government over land leasing and establishment of development zones, local governments attempt to develop various “new district” or “reform experiment zones.” The illegal land conversion has been widespread.

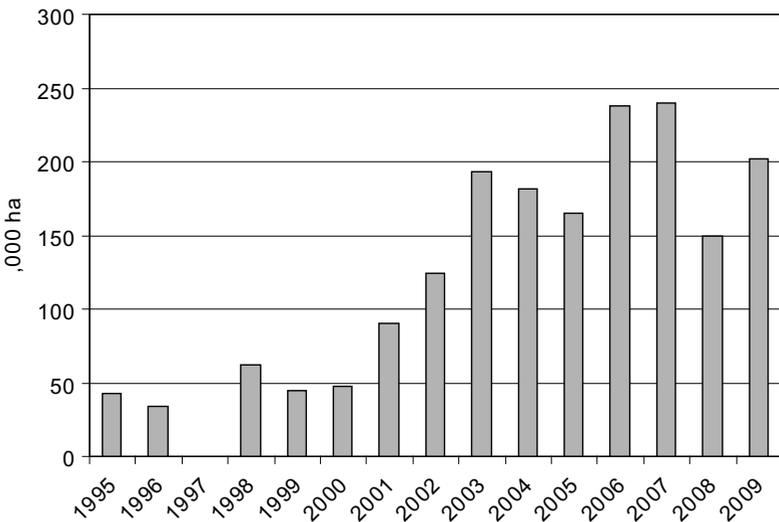


Figure 1. The total amount of land leasing in China, 1995–2009

Source: China State Land Administration Bureau (1996–1997); China Ministry of Land and Resources (1999–2005), China Ministry of Land and Resources (2010).

Fragmented Spatial Form

Contemporary urban transformation in the Western developed economies has produced a fragmented spatial form. According to Dear and Flusty (1998), the classic concentric zones model of Chicago School can no longer describe the spatial form of post-industrial cities like Los Angeles. They describe this new spatial form as the pattern of “postmodern urbanism,” characterized by sharp contrasts between different residential forms such as “gated communities” and “ethnoburb” with concentrated transnational immigrants. Greater diversity and fragmentation are major features of postmodern urbanism because new developments are “occurring on a quasi-random field of opportunities” (p. 66), brought about by flexible accumulation rather than a Fordist approach of large-scale industrial development. While this characterization of contemporary urban space is still subject to debate, there is a general consensus that the new urban form sees higher heterogeneity and spatial juxtaposition and division, described by concepts such as “quartered city” or “layered city” (Marcuse, 1997).

The spatial form of Chinese cities under the world’s factory regime shares some similarity with fragmented postmodern urbanism in the West. But the underlying logic might be different (Ma and Wu, 2005), because the Chinese cities continue to be affected by path-dependent processes left behind from state socialism. Still, they see crowded streets and migrant settlements commonly found in the developing world. On the other hand, elitist consumption space represented by luxurious and often western-looking villas, glittering shopping malls, supermarkets, office buildings, and new economic space of high-tech and financial clusters are built, transforming the skyline of contemporary Chinese cities. Thus, the Chinese cities see both the elements of the “First World” and the “Third World” mixed in a short spatial distance. For example, in suburbs, the most luxurious gated communities can be juxtaposed next to the poorest “urban villages” with concentrated migrants (Huang, 2005). In the central area elite consumption and entertainment districts such as Xintiandi in Shanghai contrasts sharply with dilapidated and shanty areas inherited from the pre-1949 era which perhaps experienced little changes in the last six decades despite rapid urban transformation. Figure 2 shows such juxtaposed spaces in Shanghai, China’s most globalized city. These landscapes could not be labeled by any singular category.

The strategy of establishing the world’s factory effectively turns the rural-urban dualism under state socialism into a new dualism within the city, namely between urban households having permanent urban registration



Figure 2. Juxtaposed spaces in Shanghai

status and migrant workers who are not entitled to the “right to the city” but reside in urban areas. According to the National Statistical Bureau which organized a major survey at the end of 2008 (www.gov.cn, 29 March 2009), there were a total of 225.42 million rural migrant workers, among whom 140.41 million worked outside the local township and towns, accounting for 62.3% of the total. In the narrow sense, these 140.41 million rural migrants are truly migrant population outside their local places and most likely live in the large cities. The capacity to govern a huge migrant population without granting their equal entitlements, while maintaining a relatively stable social order, is much attributed to the authoritarian past as well as enhanced efforts of “community construction” which rebuilt grass root (neighborhood) governance (Friedmann, 2007). Such a new dualism is physically manifested as startlingly different neighborhoods.

Chinese Informal Settlement: Urban Villages (*chengzhongcun*)

Chinese cities may not have a problem of prevalent slums in South Asia or *favela* in Latin America. However, the migrant population apparently concentrates in the peri-urban area (Wu, 2006). They are accommodated in the rural villages encroached by the urban built-up areas. These villages are known as “urban villages” (*chengzhongcun*), which is the Chinese version of informal settlements, because villagers built their own houses in a

spontaneous way, which is quite different from commodity housing development because the land of village development is not acquired by state ownership. The housing developed by villagers either individually or collectively could not be sold in the market, because it is not legally recognized, and thus the deed for the property could not be obtained from the land register. In this sense, the housing developed in urban villages is “informal,” mainly for private rental, and in most cases a formal contract between the landlord and tenant is not deemed necessary. The construction is often possible because of the lax development control in the rural area where the formal management of city planning has not been strong.

What defines “urban villages” is not the concentration of migrants but the unique form of land ownership. In China, there are two basic forms of land ownership. In the city, land is owned by the state, while the land use right can be leased through the payment of land premium to the municipality (Yeh and Wu, 1996). In the rural area, land is collectively owned, while the plot of housing site is assigned to the farmer household. Only those who bear the status of rural household registration can have an entitlement to a housing plot known as *zhaijidi*. Rapid urban expansion engulfed former rural villages. To save the cost of compensation, village land was left out, while the farmland was acquired in the process of land requisition. As a result, urban development encircled the sites of village (typically used by farmers as their housing plots), forming an island of collective ownership land in the state land. Urban villages are characterized by chaotic land uses and extremely high building coverage (Zhang *et al.*, 2003). Individual households extend their buildings up to the boundaries of land plot because they want to maximize the use of space. Migrant workers are excluded from the mainstream public housing provision. Since they are unable to afford formally built commodity housing, they usually live in urban villages. Private rental housing in urban villages provide affordable accommodation to migrants. Renting housing to migrants brings about a steady income to local farmers. However, public facilities lack proper investment and maintenance as urban villages are essentially a place under “private governance” (Webster, 2002), although there is no gate or access restriction. These villages are not maintained and serviced by the municipal government. They are generally over-built in terms of building coverage, resulting in narrow alleys, unpaved and often filthy streets. The poor conditions of some urban villages, especially their infrastructure, may resemble that of slums or *favela* in Latin America. However, one important difference is that dwellers in the Chinese urban villages are job active, and often work in the formal sector of the global economy (Wu, 2009). They may have a low educational attainment but are the basic labor force for the labor-intensive export industry.

The current practice of urban village redevelopment is to demolish the whole village to give way to real estate investment. There have been some differences in the redevelopment approach: for example, Zhuhai in southern China adopted a more proactive model to allow villagers to share land revenue, whereas Guangzhou controlled redevelopment through government-led reconstruction (Tian, 2008). But redevelopment practices are more and more following Guangdong way of so-called “redevelopment of three olds” (*san jiu gaizhao*), namely the redevelopment of “old villages, old factories and old urban areas.” The main motivation of the redevelopment approach is to speed up the process of redevelopment through compensating villagers with the property in the redeveloped village area, namely villagers can receive *in situ* property of equivalent space of demolished housing, and the village retains the newly developed commercial space as the collective asset. The initiative of redevelopment is now decentralized to individual villages which are allowed to set up their own development companies. They could either cooperate with real estate developers or redevelop the area by themselves. Part of the redeveloped area is thus converted into state land on which commodity housing and commercial buildings can be built, with which buyers can receive their deeds. While part of the space retains collective ownership, through the repayment to the land leasing premium at a discount price later, villagers are allowed to convert their properties into commodity housing. The consequence of this policy is that it removes the resistance of villagers to redevelopment, which has been widespread because the municipal government monopolizes the supply in the primary land market and captures the differential rent between collectively-owned rural land and the price of leased land. Through this scheme of redevelopment, investment in the redeveloped site helps to develop relocated housing on the site and villagers are allowed to retain the revenue generated from village redevelopment. The policy effectively expands the land supply, because in the Pearl River Delta, the protection of agricultural land and excessive construction of urban areas in the past have led to the shortage of land for the new round of development. The government may also use this policy to upgrade the economic structure, since village redevelopment gradually erases the affordable housing for low-level migrants, making the city less attractive to the labor-intensive industries.

Packaged Suburbia and Gated Communities

In contrast to the spontaneously self-built urban villages, Chinese new suburbs present an orderly and designed environment. The majority are

commodity housing estates, following the concept of residential “micro-district” (*xiaoqu*). However, different from the preset technical norms in the socialist period, the design standards become more differentiated to suit different consumer groups (Wang and Murie, 2000). In a highly competitive market for commodity housing, developers try to invent various packaging and design tactics to boast that their products are unique and tailor-made for their customers, using “modern” (read “Western”) design techniques. To attract upwardly mobile middle class who are more likely buying the commodity apartment or house as the second property in addition to their inner city apartment, often allocated by their workplaces, developers attempt to distinguish their products from the product of mass and collective consumption. This is particularly apparent in some upper market villa projects.

In the designed suburb, some developers adopt the idea of “new urbanism” in the US, specifically the neo-traditionalist urban design which emphasizes the cosy and compact residential environment of American small towns. What is selectively adopted in the Chinese version of “new urbanism” is not the compact form and small town atmosphere, but rather an elitist style of design, even to the extent of ostentatious, decorative “western”-style built forms (Wu, 2010). To be precise, these western styles are not in their authentic forms, but often a mixture and package of different styles (Wu, 2010). Many are built in gated communities and include club houses. Some even include amenities such as golf courses (Giroir, 2007).

Typically for upper-market villa compounds but also seen in commodity housing estates, developers use various tactics to beautify and package their projects (Wu, 2010). For example, they may create magnificent gates, even in a neoclassical and monumental style. These gates are not just for security, as they do in the gated communities of the US. Disproportionate in size and often over-designed, these gates serve as a label for their products, very much similar to the package of commodities. For many projects, they also use foreign architectural styles, often mimicking European houses to present a chic outlook. The most popular is so-called “continental European” style (*oulu shi*). In extreme cases, the whole residential area could be packaged into a particular style. For example, in Songjiang new town, about 40 minutes by metro to the city proper of Shanghai, a micro residential district, literally a master-planned community called “Thames Town,” is constructed in an English style. Similarly, using foreign or exotic names is another tactic to signify otherwise nameless greenfield where these projects are usually built. We then have a collection of strange names for these residential places such as Napa Valley, McAllen, Fontainebleau, Yosemite, Orange County, and Rivera. While these places have their “foreign names,” they usually have their

translated Chinese versions. Often, the Chinese names do not bear any resemblance to the foreign places, but the purpose is to use complex and unusual place names, to project a sense of sophistication and taste.

Ironically, while the property-led development dismantles traditional neighborhoods, developers sell the vision of “community life” to property-buyers. Following the discourse of “new urbanism,” the developers claim that there is a vibrant community behind the gate. They attempt to depict suburbia as a home within communities. In reality, these places have been built for a very limited time and are not “memorable places” (Tombs, 2005, p. 939). Social network and interaction have not been fully formed. A major obstacle to the community building is that many homeowners are actually not living in these places. Many are the buyers of second or third property. In an interview in Shanghai’s Songjiang new town in July 2010, we were told that most buyers are in the range of owning the third and fourth property in Thames Town. No wonder the place is quiet and used by art studios for wedding photos. However, there is a common interest bonding homebuyers — homeownership and property value. Initially encouraged by the government, homeowners associations are set up because these gated communities are under “private governance” (Webster, 2002; Webster *et al.*, 2005), managed by property management companies rather than municipal utility services department.

The emergence of homeowners association transforms neighborhood governance which was traditionally dominated by residents’ committees (Read, 2003). In the process of rebuilding territorial communities, the role of residents’ committees has been strengthened. Now, the homeowners association opens up a new self-governed space for residents. In upper market estates, we witness a waning role of traditional governance approach by quasi-government residents’ committees. In the recent dispute of green space preservation and environmental protection in some gated communities, the homeowners association plays a vital role to resist the decision by the developer. Because of this rising role of self-governed organization, the attitude of government about the homeowners association became ambiguous; Out of concern over the power of homeowners’ association, the government tries to define the role of homeowners association strictly in the sphere of property management rather than social management or mobilization. On the other hand, to cope with rising social mobility, the government strengthens community management through professional social workers and cadres. Small residents’ committees are consolidated and merged into larger *shequ* (community) committees, and the appointment of carders is formalized. As a result, for residential management, we see a shift from governance composed of the

volunteers from retired people and housewives living locally to formally appointed and professional cadres forming a formal tier of governance with an allocated administrative budget.

As a general trend, the Chinese city sees greater diversity in terms of landscapes and heterogeneity in terms of social composition and governance. The startling difference between organic and chaotic urban villages and designed and packaged suburban gated communities reflect the underlying mechanism of the world's factory regime and social inequalities. Such a regime utilizes low-cost migrant workers to forge production capacities, while giving a mean-tested wage to the labor force and forcing them to live under a cost-minimizing livelihood. At the same time, this approach generates trade surplus and foreign exchange reserve. With the expectation of inflation and currency appreciation, surplus capital flows into real estate, boosting land values. The upwardly mobile middle class, despite the pressure of house price inflation, benefits from the development of world's factory and property value appreciation, and are eager to pursue a good life. Such a passion for private car and designed homes suits the local government well in its entrepreneurial endeavor to improve the image of the city and raise land revenue from property development.

Uprooted Urban Society

The Chinese society has been remarkably stable. Fei Xiaotong, a renowned Chinese sociologist, attributes this stability to its social structure. He describes rural China as an "earth-bounded" society (Fei, 1992), because people are related with each other through close but "differentiated associations" ranging from the inner circle of the family, to outer circle of extended family, further to the ring of villagers. The dense social networks knits Chinese peasants into a self-governance web. Such a feature has been inherited and preserved even in the socialist period, through state work-units which organize collective consumption. These work-units, including enterprises and public institutions, are more than production units or workplaces. They are "total social entities" carrying out social provision, housing development and distribution, political mobilization and social management (Whyte and Paris, 1984). The result is the so-called "communist neo-traditionalism" (Walder, 1986), or the "totalitarian society" (Sun, 2004) in which the "state controls the economy and monopolizes all social resources; and politics, society and ideology are highly overlapped with each other" (Sun, 2004, p. 31). In the cities, this feature of totalitarianism was strengthened by state housing provision combined with state-led industrialization.

The development of work-unit compounds combining workplace and living place was common practices, resulting under-differentiated social spaces in urban China. Residential differentiation was more based on occupations (Yeh *et al.*, 1995) rather than social classes. Only after the housing reform, tenure inequalities began to shape residential differentiation based on housing tenures (Li and Wu, 2008).

This self-contained pattern of urban development is broken in the process of transformation from state-led industrialization to establishing a world's factory regime. Large-scale rural to urban migration not only allows peasants to abandon agricultural activities but also forces them to leave the rural society and become "sojourners" in the cities. Such a process is "incomplete urbanization" (Chan, 2010a), because traditional rural population has not been completely urbanized and many migrants are in the status of "temporary" migration without urban welfare and other benefits in the cities. Because of the costs of childcare, education and housing, many migrants live in the dormitory and leave their families behind. Because of family separation and absence of normal family life, migrants often experience anxiety and loneliness. The outflow of younger labor force has left behind older and weaker rural population as well as women and children. The gender imbalance results in unstable family and social relations, eroding the feature of "earth-bounded society."

In terms of residential mobility, migrants mainly live in private rental housing and follow the available job. When they return to the countryside during the Spring Festival, they do not normally keep their rented room, because they have few possessions and uncertainty in jobs, and it is always possible to find alternative rental housing. The informal rental market plus job instability mean that their residence cannot be permanent. Although migrants tend to cluster on the basis of their place of origin (Zhang, 2001; Ma and Xiang, 1998), these villages are different from an established rural villages bounded by long-term social relations. Although the rural village is integrated through family ties or "differentiated associations" as described by Fei (1992), the "urban villages" are divided between original villagers and new arrivals. While original villagers belong to the proprietor class and are entitled to the village share-hold company which controls village collective assets, migrants are excluded from any claim to benefits from village development. The situation is the same for other places such as old urban areas and workplace compounds where new migrants have no membership or entitlement. This institutional exclusion led to the rootless status of migrants. No matter how long they have been living in the community, they are still sojourners. This enforced nature of "sojourner," on the other hand, hinders

migrant population from developing social capital. Rather, they adopt a cost-saving approach and try to reduce the living costs and maximize savings. They willingly tolerate poor living conditions and send remittances back to the countryside.

Massive urban redevelopment also transformed traditional urban neighborhoods. In the socialist period, as an inferior type of public housing belonging to the municipality rather than state owned enterprises, traditional neighborhoods had limited resource to maintain their services and over time saw deterioration of housing conditions and service facilities. Through the formal channels such as job recruitment and university education, residents with better human capital were absorbed by the state sector. Since housing reform, a new channel appeared through the housing market. Richer residents moved out from these neighborhoods by purchasing commodity housing and relocated to suburbs. Accompanying this spontaneous relocation is enforced demolition and relocation. Property and infrastructure development razed many traditional neighborhoods into garish high-rise office buildings, shopping malls, hotels and luxury apartments (Friedmann, 2007). But long before large-scale real estate development, the development of larger modern residential districts already transformed close neighboring of residents in the old city. The design of compartmentalized units reduces physical interaction between neighbors, compared with the ample shared space in traditional courtyard housing such as *hutong*. With the demolition of old housing and the development of new apartments, the Chinese cities are experiencing important changes in social characteristics. The traditional method of social control, namely *hukou* registration, becomes less effective. Thousands of residents who moved to the new suburb still maintain their place of registration in the matured urban areas because the services such as schooling are better there, creating a unique phenomenon of discrepancy between the registered place and actual place of living (known as the “people and *hukou* separation,” *renhu fenli*). The social complexity eventually leads to the breakdown of traditional society and the urban society is now being uprooted.

Constraints to the World's Factory and Post-crisis Urban Development

The Chinese growth regime relies on three critical elements: the overseas market guaranteed under WTO, the state's capacity to govern, and the abundant low-cost labor force. The global economic crisis has significantly changed the first element. There has been a slowing down of Western

consumer markets. In the meantime, trade protectionism increases. Accompanying the protectionism is the pressure on China to reduce greenhouse gas emission. China has announced that by 2020 it will cut down the carbon dioxide emission intensity by 40 to 45% per GDP unit. To achieve the target requires some serious adjustment of economic structure and the change of the development approach. Now the target of achieving emission reduction is becoming a measurement of local government performance, in addition to the GDP growth rate, according to the local government officials we interviewed (June 2010).

As for the third element it is obvious that, the cheaper labor force may not be unlimited. The growth of labor force will end in 2017, according to Cai (2007), who argues that China is now witnessing the Lewis Turning Point. According to Lewis (1954), the developing economy is divided into traditional and modern sectors. Because of the dualism, the supply of surplus labor is almost unlimited, thus maintaining the labor cost to a stagnant level, until all surplus laborers are absorbed into the modern sector. After this point, the dual sectors are integrated into the modern economy in which labor costs increase along with economic growth. The evidence of labor cost increase might indicate the turning point of this economic integration. As early as 2004, the Pearl River Delta began to see migrant shortage, which spread over other places. The evidence of rising migrant workers' cost in 2009, according to Cai (2007), suggests that the agricultural sector could no longer release surplus labor for industrial development in the cities without incurring additional labor costs. However, whether there is a demographic change that renders a turning point to the Chinese economy is still subject to debate. In the post-crisis era, global trade imbalance, rising trade protectionism, the pressure to reduce greenhouse gas emission, and possible reduction in labor force mean that the growth regime of world's factory reaches serious constraints; and it is not possible to continue the current urban development approach. In the remainder of this chapter, three possible major trends that might bring challenges to existing urban development will be discussed.

Urban Development under the Pressure of Real Estate Boom

Prior to the global financial crisis, the Chinese economy had experienced a hyper capital liquidity problem. To control the excessive liquidity, the Chinese central bank raised the bank deposit requirement and baseline interest rates. A related move was the tightening of land management since 2004. The macroeconomic policies, while intended to address some structural problems of Chinese world's factory, namely redundant production capacities and low

value-added growth, actually made the manufactory sector more difficult to cope with falling profit rates. Export-oriented industries were confronted with appreciation of renminbi currency and improved Labor Contract Law which allowed migrant workers to receive better compensation. In addition to the abolishment of agricultural tax in 2006, the incentive for migrant labors to work in the city had been reduced, resulting in so-called “migrant shortage,” especially in the heartland of export industries in the Pearl River Delta. Before that, Chinese manufacturing industries tried to reduce labor cost while benefiting from various tax concession and preferential treatment made by the local government. The “worsening” production condition from rising interest rate, labor cost, and tightening land policy compelled some manufacturing industries to abandon production and shift the capital into the stock and real estate market. With the expectation of renminbi appreciation, international “hot money” found their ways into China and made indirect investments in the property markets. All these led to a highly volatile real estate market, which had experienced a property boom. Just prior to the global financial crisis in 2008, there was a real estate boom. Consequently, the government adopted economic tightening policies to prick the bubble. But the global financial crisis, started suddenly in mid-2008, interrupted the tightening policy. The fiscal policy turned from being tight to positive. The positive fiscal policy was intended to save the export-oriented manufacturing industries that were hit hard by the global downturn; the shift helped real estate developers to get out their strained capital chain.

Similar to the days after Asian financial crisis, housing development became a major economic driver in late 2008. The central government aimed to boost domestic demand. But instead of raising consumption capacity which has a highly distorted income distribution structure, the chosen measure was to expand investment in public works and infrastructure. A 4 trillion yuan (\$586 billion) stimulus package boosted investment, but at the same time created a further imbalance between investment and consumption. The stimulus package made capital available before the recovery of the real economy. With injected capital liquidity, large state-owned enterprises began to aggressively bid for land, with the expectation of land appreciation. The involvement of large state-owned enterprises suddenly turned the sluggish property market into a V-shaped recovery. The property price experienced dramatic inflation in 2009. In the primary land leasing market, the price broke historical record in land sales, creating so-called premium land plots (*di wang*). With the constrained overseas market, capital shifted toward the built environment. In 2009, the total land premium reached 1.5 trillion Yuan (\$224.8 billion). Hangzhou and Shanghai each leased more

Table 2. The land revenue and its percentage to budgetary local revenue in selected cities (2009)

City	Land revenue	Budgetary local revenue	The percentage of land revenue to the local revenue
Hangzhou	105.4	101.9	103.39
Shanghai	104.3	254.0	41.06
Beijing	92.8	202.7	45.79
Tianjin	73.2	n.a.	n.a.
Guangzhou	48.9	265.6	18.41
Ningbo	48.8	96.6	50.51
Chongqing	44.0	68.2	64.53
Wuhan	36.1	100.5	35.92
Chengdu	32.4	84.6	38.30
Xiamen	30.3	45.1	67.12

Source: Yuan, 2010: p.159; Xinhua News (www.xinhua.com: 10 Jan 2010).

than 100 billion Yuan, while Beijing and Tianjin leased 92.8 and 73.2 billion Yuan (Xinhua news, 10 Jan 2010; Yuan, 2010, p. 159). For 70 major large and medium cities, in 2009, 1,083 billion Yuan land premium were collected, a 140% increase than 2008.

Table 2 shows the land leasing revenue and the ratio of land leasing revenue to the budgetary revenue. For many cities, land revenue exceeds half of regular budgetary revenue, and land leasing and development become a major driver of local economic growth. The difficulty of maintaining overseas trade market, means that capital diversion to the real estate market will continue. It is very likely that urban development will be driven by real estate expansion in the post-crisis era, and not so much by foreign investment in manufacturing before the crisis.

From Urban Rural Dualism to Structured Social Exclusion

Migrant population, as the “industrial reserve army,” shoulders the cost in times of crisis to a disproportionate extent (Chan, 2010b). Chinese urban development is built upon this indispensable component of low-cost labor. Under the world’s factory regime, cheap labor is the basis for the “China price.” In the post-crisis era, the government aims to boost domestic household consumption. However, the root cause of insufficient domestic demand is the under-consumption of the majority, especially the rural population and migrant labor (Chan, 2010b). In reality, the policies to boost domestic consumption actually target the rising middle class instead of migrant popu-

lation. For example, affordable housing schemes are not designed for migrant population; and the rapidly expanding private car market is beyond their affordability. To promote domestic consumption as a driving force for the economy, the government may likely encourage the development of niche market for the urban upper- and middle class, because they are vocal and could possibly be promoted to generate new demand (such as private cars). The demand imperative of boosting consumption may override the concern over social equality, as the development of market is regarded as a priority. History tells the same story: the market development approach was adopted in the aftermath of the Asian financial crisis. In order to raise the incentive of homeownership, the government radically abolished in-kind housing allocation and pushed the urban residents into the commodity housing market.

In addition, we may see a new dynamism of structured social exclusion which has been so far absent in China but exists widely in more advanced market economies (Wacquant, 2008). Chinese migrant population in the cities, although occupying a low social status, are job-active and closely participate in the global commodity production. In a sense, they are not marginal, but are at the core of the mainstream economy in terms of their economic position (Wu and Webster, 2010). With the shift of development in the post-crisis period, we may see a new process of “de-industrialization,” in which the excessive production capacities have to be removed. Economic restructuring, the pursuing of innovation and capital intensive development, may lead to limited capacity of job creation. For migrants who are already in the city, especially the second generation of migrants, it becomes increasingly unrealistic for them to return to the countryside when there is an economic downturn. According to Chan (2010b: 667), among 14 million migrants who returned to the countryside and stayed there, only 2 million found work. Out of 56 million migrants who came back to the city after the Spring Festival, 45 million found work. Assuming that all migrants staying in the city found work, the total unemployed migrant labor amounted to 23 million in early 2009, resulting in a 16.4% unemployment rate. For the second generation migrants who were either born in the cities or came to the cities right after primary school, they have little experience of farming. The question for post-crisis urban development in urban China is whether there would be a future “underclass” (Solinger, 2002) separated from the mainstream economy and society. If this were the case, we would see a very different dynamic from the past, because a large pool of workforce may fall out from the production process and lose the means to earn a living through the job market, while existing state-organ-

ized welfare program could not cover them. The state welfare system is not ready to expand without serious financial implications. So far the Chinese city has been largely able to avoid homeless and consequent squatters. Will the Chinese city see the development of slums and squatters? And will the constraint of production capacities create “urban outcasts” like those in the advanced western economies (Wacquant, 2008)? If so, the Chinese city would see a wholly different social spatial form, changing from spatially juxtaposed to segregated social spaces.

Economic Restructuring, Innovation, and Low-Carbon Eco-City

Prior to the global financial crisis, the Chinese economy was under the pressure to change its growth approach. The process was driven by rising production costs and currency appreciation. The process of restructuring can be typically seen in southern Jiangsu. After the collapse of collective rural economy (characterized by TVEs), the new Sunnan model is characterized by large-scale land development and foreign capital in manufacturing industries. In the municipality of Suzhou, for example, clusters of electronic manufacturing industries are formed. Within the municipality of Suzhou there is a county-level city, the city of Kunshan. In 2007, there were 1,100 ICT companies located in Kunshan alone, with \$14 billion investment. The assembly and production of notebooks accounted for 40% of the total world production. But even before 2008, labor intensive enterprises began to close down and were relocated to Vietnam and other Southeast Asia countries and Chinese inland region. The Chinese government also encourages economic restructuring, moving away from low productivity and low innovative capacity to more innovative and higher value-added industries. The global financial crisis accelerates this process. In southern China like Guangdong, an explicit policy to “free the cage and change the bird” (*tenglong huaniao*) has been adopted to promote the upgrading of industrial structures.

An important policy agenda for urban development is to encourage the “indigenous innovation capacities.” Economic development zones have been an approach to attract foreign investment. But in the new environment, they are increasingly used as an incubation space to foster innovation. The establishment of various development zones has significantly expanded the built-up area of the cities, which is often used by local government to capture mobile resources and enhance the administrative status of locality. The central government initiated several crack-down movements to eliminate over-use of land and illegal development of development zones. This zone

fever has been extensively documented in the literature of Chinese urban development (e.g., Hsing, 2006). Now development zones are consolidated. There are two major types of development zones: national economic and technological development zones (ETDZs), and national high and new technological industrial development zone (HNTIDZs). In total, the central government approved 49 national ETDZ and 5 equivalent industrial parks, 56 national HNTIDZs, or in fact “high-tech parks.” These zones facilitate the clustering of high-tech industries and innovation in new technologies.

The government now encourages the transition from a purely investment oriented zone to a new functional area of key industries and industrial agglomeration. The development of these zones benefit from entrepreneurial land development. In fact, many zones have a development corporation status. Now many of these development zones are no longer isolated from the city but are part of municipal functional area. To enhance the economic competitiveness, the municipality provides various policy supports. For example, the Shanghai municipal government adopts a so-called “focusing on Zhangjiang” policy to concentrate the resources of the city of Shanghai to build Zhangjiang High-Tech Park, including relocating some medical university and research institutions in the park. Other high-tech parks include Zhongguancun Science Park in Beijing and Shenzhen High-tech Park. The Zhongguancun Science Park, based on ICT industries, is becoming a major base for R&D. Now, Zhongguancun is no longer a geographically bounded area like a development zone, but rather a collection of zones which include the Haidian zone as the core, an extended Haidian zone further towards the northwest suburbs, Fengtai zone, Jiuxianqiao electronics city, Changping zone, and Yizhuang zone. The multiple parks help to stimulate the link of R&D inside the zone with the rest of the city. It is foreseeable that innovation will continue to be the major theme of post-crisis urban development in China.

The second trend in post-crisis urban development is the enthusiasm for so-called “eco-cities” and “low-carbon cities.” In response to climate change and international pressure on the reduction of greenhouse gas emission, the Chinese government announced some measurable indicators. It was announced that in the 11th five-year period (2005–2010) the per unit GDP energy consumption should be reduced by 20% of the same figure in 2005. The target is not an easy one. To achieve the target, it has been disaggregated to the local governments. However, China is in the midst of rapid industrialization and urbanization. With the increase of living standard, there will be rising demand for energy; for example, the wider use of private cars and the separation between job and residence will lead to longer commutes. With the

pressure to cut emission, various local governments seize the new opportunities to develop “low-carbon” or “eco-cities.” For example, Dongtan in Shanghai has once claimed to be the world’s first eco-city. But with the problem of land acquisition and land development quotas, the project is now halted. But in other places such as Tianjin, Caofeidian, Suzhou, and Shenzhen, through international collaboration, new eco-cities are under development. To save the land, Sino-Singapore Tianjin Eco-city is situated on non-arable land, including one-third saltpan, one-third deserted beach, and one-third wastewater area. Caifeidian eco-city is developed through land reclamation. Besides these major developments, there are more cities to join the fever of eco-cities and low-carbon cities, indicating a move away from traditional export-oriented approach. However, many so-called low-carbon cities have not fully recognized the difficulty in achieving the target of zero emission or carbon neutral, but are simply using the title to capture new development opportunities. Some rush into alternative energy developments such as solar and wind programs. The development of new energy may lead to over capacity without overcoming some technical challenges.

Conclusion

From the economic reform in 1979 to joining the WTO in 2001, China developed a new approach to economic growth and capital accumulation, which is a departure from self-contained and indigenous industrialization. The “open-door” policy that allows the large-scale inflow of foreign and overseas investment and conscious efforts to insert Chinese production activities into the global production chain eventually transform China into the world’s factory. Through economic devolution, fiscal reform, and local land revenue generation, local governments become entrepreneurial agents in organizing land and urban development. Urban and rural dualism maintains a low-cost labor supply, and state monopoly of land requisition allows local governments to capitalize the differential rent to fund infrastructure development. Spatially this kind of urban development leads to a fragmented form, with the sharp contrast between packaged gated communities and spontaneous urban villages inside the city. Socially, the increasing social complexity erodes so-called “communist neo-traditionalism” and turns an earth-bounded rural society into an uprooted urban society. In terms of governance, Chinese cities witness unprecedented mobility: for rural migrants, they live in the city while retaining their rural household registration in the countryside; for urban residents, many have moved to the suburbs while keeping their registered places inside inner areas, causing so-called

“people and *hukou* separation.” Both impose a great challenge to urban governance, with the state initiating various programs to rebuild the community, results of which remains to be seen.

The global financial crisis has profound implications for Chinese urban development because it undermines the structural coherence of the regime. The pressure to cut greenhouse gas emission, the accelerated trade protectionism, the rising labor costs, and a dwindling rural sector means that advantages are fading and constraints increasing. Three tendencies in urban China in the post-crisis era can be identified might emerge: real estate boom, structured social exclusion, and the tendency towards economic restructuring with emerging form of urbanism that includes high-tech parks and eco-cities. To achieve sustainable urban development, the future task for the government is to manage these tendencies, to minimize financial fallout from unrestrained property boom, to avoid the formation of an “under-class” while boosting the middle class/domestic demand, and to prevent the overconsumption of resources under the name of eco-development. All these would be new challenges to the Chinese state. In order to re-establish the structural coherence, an institutional change is required.

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