

# Governing global city regions in China and the West

Ronald K. Vogel<sup>a,1,\*</sup>

<sup>a</sup> *Department of Political Science and Department of Urban and Public Affairs, Ford Hall 205, University of Louisville, Louisville, KY 40292, USA*

H.V. Savitch<sup>b,2</sup>

<sup>b</sup> *Department of Urban and Public Affairs, University of Louisville, 426 W. Bloom Street, Louisville, KY 40208, USA*

Jiang Xu<sup>c,3</sup>, Anthony G.O. Yeh<sup>d,3</sup>

<sup>c</sup> *Department of Geography and Resource Management, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong*

<sup>d</sup> *Department of Urban Planning and Design, The University of Hong Kong, Pokfulam Road, Hong Kong*

Weiping Wu<sup>e,4</sup>

<sup>e</sup> *Urban Studies and Planning & International Studies, Virginia Commonwealth University, 312 N. Shafer Street, Lafayette Hall 302, Richmond, VA 23284-2021, USA*

Andrew Sancton<sup>f,5</sup>

<sup>f</sup> *Department of Political Science, Social Science Centre, The University of Western Ontario, 1151 Richmond Street, London, Ontario, N6A 5C2 Canada*

Paul Kantor<sup>g,6</sup>

<sup>g</sup> *Department of Political Science Department, Fordham University, 441 E. Fordham Road, Bronx, NY 10458, USA*

Peter Newman<sup>h,7</sup>

<sup>h</sup> *Department of Urban Development and Regeneration, School of Architecture and the Built Environment, University of Westminster, 35 Marylebone Rd, London NW1 5LS, UK*

---

\* Corresponding author. Tel.: +1 502 852 3312; fax: +1 502 852 7923.

E-mail addresses: [ron.vogel@louisville.edu](mailto:ron.vogel@louisville.edu) (R.K. Vogel), [hvsavi01@louisville.edu](mailto:hvsavi01@louisville.edu) (H.V. Savitch), [jiangxu@cuhk.edu.hk](mailto:jiangxu@cuhk.edu.hk) (J. Xu), [hdugoy@hkucc.hku.hk](mailto:hdugoy@hkucc.hku.hk) (A.G.O. Yeh), [www@vcu.edu](mailto:www@vcu.edu) (W. Wu), [asancton@uwo.ca](mailto:asancton@uwo.ca) (A. Sancton), [kantor@fordham.edu](mailto:kantor@fordham.edu) (P. Kantor), [P.Newman@westminster.ac.uk](mailto:P.Newman@westminster.ac.uk) (P. Newman), [t\\_tsukam@uncg.edu](mailto:t_tsukam@uncg.edu) (T. Tsukamoto), [tsyicheu@hkucc.hku.hk](mailto:tsyicheu@hkucc.hku.hk) (P.T.Y. Cheung), [jianfa@cuhk.edu.hk](mailto:jianfa@cuhk.edu.hk) (J. Shen), [WuF@cardiff.ac.uk](mailto:WuF@cardiff.ac.uk) (F. Wu), [ZhangF4@cardiff.ac.uk](mailto:ZhangF4@cardiff.ac.uk) (F. Zhang).

<sup>1</sup> Guest Editor, author of Chapter 1 and Chapter 12.

<sup>2</sup> Author of Chapter 2.

<sup>3</sup> Authors of Chapter 3.

<sup>4</sup> Author of Chapter 4.

<sup>5</sup> Author of Chapter 5.

<sup>6</sup> Author of Chapter 6.

<sup>7</sup> Author of Chapter 7.

## Chapter 4. Globalising in fragmented space: spatial expansion and the development process in Shanghai

Weiping Wu

Market forces are increasingly the dominant force behind urban processes in China, particularly in housing and land development. There is evidence that the importance of location, which was irrelevant in socialist cities without land markets, has led to the emergence of a land rent gradient similar to that of cities in capitalist systems (Ma, 2003). Local government has also become the key stakeholder in urban development under China's steady fiscal decentralisation. Working out a development strategy that can stimulate growth and expand the revenue base is an essential goal for local government, because its investment capacity depends on such revenues. Local government, to a certain extent, has become a local developmentalist state with its own policy preferences. Two additional considerations motivate it to facilitate urban growth: exhibiting achievements to the central government and promoting economic development to serve local interests (Zhang, 2002; Zhu, 1999, 2000).

Perhaps no other Chinese city can better demonstrate this dynamic than its largest metropolis, Shanghai. The city's spatial and land use patterns have changed steadily during the reform era and under globalising influences. This chapter explores the interplay of development strategy and urban form, and examines such key drivers of spatial expansion as industrial restructuring, global investment, and rural–urban migration. It synthesises major spatial patterns in the past two decades, particularly those of the local population, migrant population, and industrial and foreign investment activities. Data are primarily drawn from the 2000 Population Census and 1996 Basic Establishment Census.

Shanghai's multi-pronged development strategy since the early 1990s clearly reflects its quest to compete in the global economy and to become a regional hub in Asia (Yusuf & Wu, 2002). Industrial restructuring has been ongoing in order to acquire some of the functions commonly associated with global city status, including finance, transnational corporate head-quarter functions, global services, transport, information, and cultural activities (Friedmann, 1998; Sassen, 1991). Another continuing effort has been to build links with the global economy by improving the physical and social infrastructure to attract foreign direct investment (FDI). These efforts have not only spatial dimensions built in, but also clear implications for spatial development. Industrial restructuring, for instance,

has been accompanied by land-use policies, inducing a shift of industry away from the urban core and permitting mixed commercial and residential use of prime urban land. Industrial consolidation and FDI promotion have also called for the creation of new production space, primarily in the form of Economic and Technology Development Zones (ETDZs).

Accelerated urban growth has led to an increasing concentration of economic functions on the outskirts of the city. Also, there has been substantial housing construction in new suburban areas and satellite towns. Compounding this process of spatial expansion is the large influx of rural–urban migrants, who have concentrated primarily in suburbs just outside the urban core. Hence, in the urban fringe there is an increasing juxtaposition of high-tech zones, new commercial housing projects, resettlement housing for central-city residents, migrant communities, and rural villages (Wu, 2002b). This chapter shows that the city's footprint is expanding more than necessary because of fragmented spatial development in the urban fringe. Industrial use is probably most responsible for the non-contiguous and leap-frog expansion. Such patterns are a product of the increasingly market-driven development process, compounded by a strong developmentalist local state interested in pursuing growth.

### 4.1. Key drivers of spatial expansion

With a population of 18.15 million (including 4.67 million migrants) and land area of 6,340 square kilometres,<sup>16</sup> the Shanghai metropolitan area is governed by the Shanghai Municipal Government, equivalent to a provincial government because of Shanghai's special administrative status. More or less following an inverse concentric pattern, Shanghai has a central city that had long been the residential core, with some of the highest population densities in the world (in the range of 50,000–60,000 people per square kilometre in some neighbourhoods; see Wu, 2008). Recent expansion, however, has begun to lead to a loss in density and an increase in travel time. For instance, average trip distances by all modes increased from 4.9 kilometres in 1995 to 6.9 kilometres in 2004. Many more trips, at longer distances, originate from the inner and outer suburbs (World Bank, 2008). Urban expansion is in particular characterised by fragmentation, with small dense areas in the urban fringe (see Fig. 2). There is a lack of consolidation into large contiguous parcels for both urban and non-urban

<sup>16</sup> Retrieved on 10 August 2009 from <http://www.stats-sh.gov.cn/>.

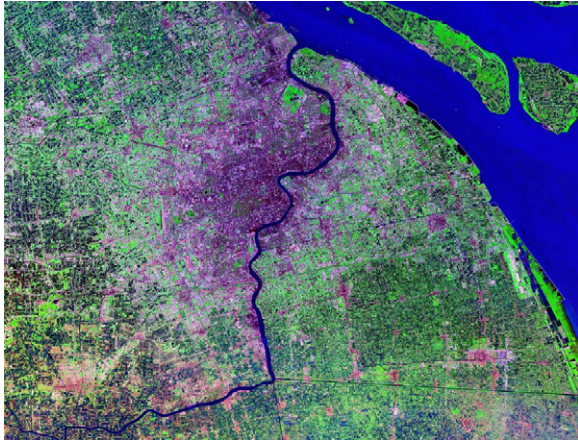


Fig. 2. Development patterns in Shanghai.

Source: <http://geology.com/world-cities/shanghai-china.shtml> (Retrieved on 2 September 2008).

(mostly agricultural) uses. Below, I elaborate on four of the key drivers of such patterns: spatial dispersion of local residents, industrial relocation, global investment, and rural–urban migration.

#### 4.1.1. Spatial dispersion of local population

Shanghai's residential patterns have changed steadily during the reform era, with the combined effect of central-city redevelopment, new housing construction, and the satellite-town programme. As a result, inner suburban subdistricts immediately outside the central city are accommodating a large number of local residents at a fairly high level of density, even though the central city remains the residential core (see Fig. 3). About two-thirds of local residents lived within a radius of 20 kilometres of the city centre and close to half within 10 kilometres in the year 2000. But between 1997 and 2000, the innermost distance band (0–10 kilometres) lost nearly five per cent of its local population. The most drastic change occurred in the 10–20 kilometre band—a sharp rise of 45% (Wu, 2008).

Redevelopment within and new housing construction outside the central city are two important mechanisms of such deconcentration. Under market reforms, previously residential central areas are increasingly under pressure for redevelopment, largely for commercial and office uses. Outside the central city, there has been substantial housing construction in new suburban areas and satellite towns. Many areas in the inner suburb, in particular, are experiencing rapid transition from rural to urban uses (often referred to as rural–urban transitional areas or *chengxiang jiehebu*). The satellite-town programme, launched after the 1950s, primarily for the purpose of industrial develop-

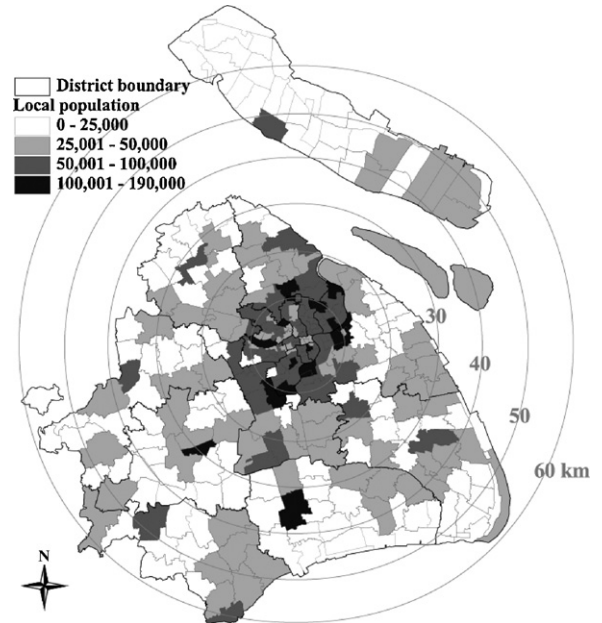


Fig. 3. Local population, 2000.  
Source: SFPCO (2002).

ment, has begun to attract more population since the 1980s (accommodating about two-thirds of a million residents in 1990—see Wu, 2008).

#### 4.1.2. Rural–urban migration

China's unprecedented waves of rural–urban migration have propelled the growth and expansion of its large cities. Shanghai alone houses in excess of four million migrants. At the turn of the 1980s, when the migrant influx first began, the central, oldest part of city was the chosen residential location of most new arrivals. In the mid-1980s, when Shanghai enumerated the migrant population for the first time, a larger proportion (over 40%) lived in the central city than in the inner suburb (Wang, 1995). The 2000 Population Census shows that migrants remain attracted to more central locations, as more than 70% of them still live within a radius of 20 kilometres of the city centre (see Fig. 4).

The spatial distribution of migrants has experienced a gradual shift, however, mirroring a trend in a number of cities elsewhere in developing countries undergoing continuing urbanisation. With urban expansion and downtown redevelopment, the inner suburb has become a more important receiving area for migrants since the early 1990s (Zhang, 1998). Central-city housing is becoming less attractive to migrants, due to commercial redevelopment and in turn the rapid rise of costs. The largest number of migrants (close to 40%) now

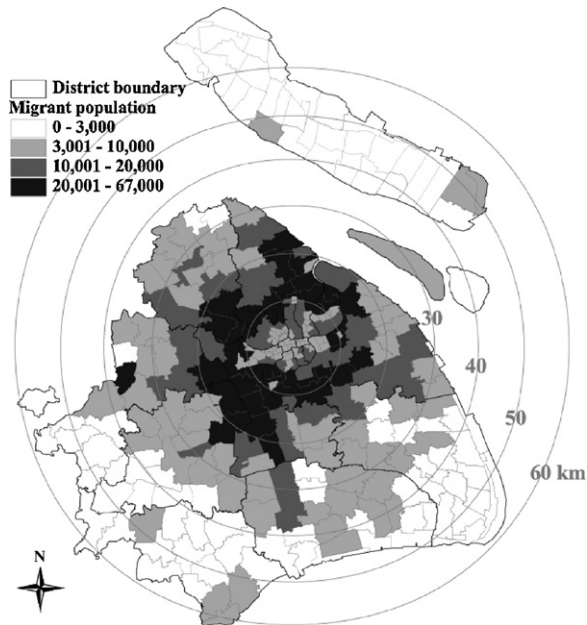


Fig. 4. Migrant population, 2000.  
Source: SFPCO (2002).

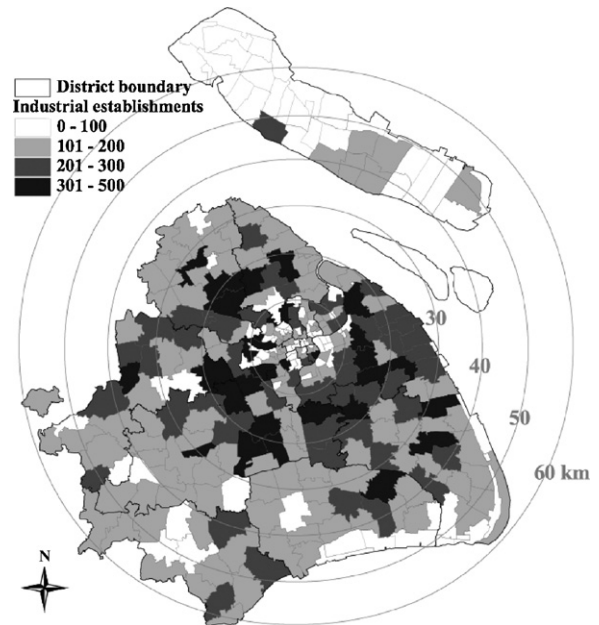


Fig. 5. Number of industrial establishments, 1996.  
Source: SBECO (1997).

concentrate in the 10–20 kilometre band (inner suburb), based on the 2000 Census data (see Fig. 4). This shift also coincides with the deconcentration trend seen in Shanghai's local population. A number of subdistricts immediately flanking the central-city boundary are now residential centres for both migrants and, to some extent, the locals. On the other hand, the emerging pattern of migrant concentration in the inner suburb lags behind the pace with which industrial establishments have been relocated out of the central city.

#### 4.1.3. Industrial relocation and expansion

To solve problems associated with fragmented industrial land use in the urban core, Shanghai has relied on relocating factories in the central city to the suburbs. A number of industrial parks or ETDZs have been created (mostly in the inner suburb), including Jinqiao Export Processing Zone (EPZ) and Zhangjiang High-Tech Park in Pudong, Minhang ETDZ, Hongqiao ETDZ, and Caohejing High-Tech Park (Yusuf & Wu, 2002). This process of industrial relocation, albeit slow and with mixed results, has freed up a significant amount of space in the central city and led to an industrial concentration in the inner suburb. Between 1991 and 2004, land allocated to industrial use in the central city decreased by 42%, from 45 to 26 square kilometres (World Bank, 2008). Industrial deconcentration may have contributed to the spread of local

residents to the inner suburb, as population increases in specific districts where major industrial development is in progress (Walcott & Pannell, 2006).

Industrial fragmentation, however, has extended to the metropolitan level (see Fig. 5), aggravated by the haphazard location of township enterprises across suburban districts (Wu, 2008). Industries now are increasingly located in the outskirts of the metropolitan area. About 27% of the land is currently for industrial use, a level much higher than the average for other large Chinese cities (about 15–20%). In fact, Shanghai has among the highest percentage of land zones for industrial and warehouse use in China (World Bank, 2008). This may be attributable to the fact that nearly 44% of Shanghai's industrial land use is scattered and not in concentrated forms, such as industrial parks. Similarly, the productivity level of industrial land (often measured by output value per unit of land) is lower than that in some comparable cities (Xiong & Luo, 2000).

#### 4.1.4. Global investment

Helping Shanghai to plant industrial roots in the early 20th century, foreign investment is now a major force pushing the city ahead with systematic change. Because of its industrial depth, modernising infrastructure, and skilled workforce, Shanghai has outpaced other Chinese cities in the race to attract FDI. Reflecting



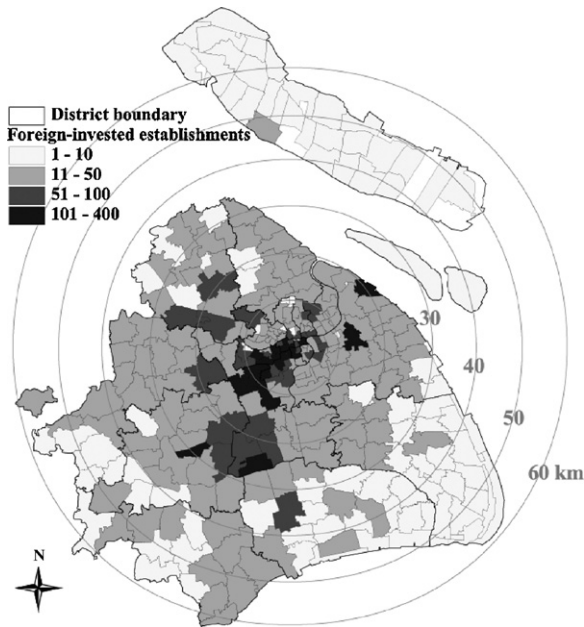


Fig. 6. Number of foreign-invested establishments, 1996.  
Source: SBECO (1997).

the city's drive to rejuvenate its mature industrial base, manufacturing sectors are attracting more foreign investors, including many of the Fortune 500 companies, such as Alcatel, Volkswagen, General Motors, NEC, DuPont and IBM (Yusuf & Wu, 2002). Funding from overseas sources has also been instrumental in the building of the city's new subway system, new industrial districts, and the hotel and other facilities. High-tech parks and ETDZs are the favoured locations for foreign invested enterprises, because of their more modern infrastructure. With the exception of Hongqiao ETDZ, these locations are outside the urban core and in the inner suburb. The distribution of foreign-invested enterprises, as a result, is dispersed, although less so than overall industrial fragmentation (see Fig. 6).

Today, planners have a rather passive position in dealing with foreign investors (Wu, 1998). Such local policies as tax incentives and land provision are all efforts appealing to foreign investors. Provision of cheap land, in particular, is a basic instrument for local government to induce foreign investment. One tactic is the creation of special development zones, which allow flexible planning control or virtually autonomous rights of land subdivision, and concession in land premium (F. Wu, 1999; W. Wu, 1999; Zhu, 1994). A problematic feature is that foreign investors often negotiate directly with senior government officials, and their investment remains unknown to the planning authority until a late stage.

#### 4.2. Fragmented expansion as product of increasingly market-driven development process

The emerging patterns of spatial expansion and fragmentation are no doubt the result of the city's rapid modernisation and development during the reform era. Since the 1980s, substantial investment from both public and private sources has poured into sectors previously termed unproductive under the command economy, such as housing and offices. In addition, comprehensive development or large residential development projects have replaced sector-based, project-specific development. Prior to reform, state-owned work units (*danwei*) were an important socialist institution and provided public housing to their employees as a part of social welfare. By allowing these units to retreat from direct land development, comprehensive development reduces the traditional tie between workplace and residence in the urban space. New residential communities in turn have become much larger and are often located in the peripheral areas (Yeh & Wu, 1996).

The frenzy of development has occurred under an increasingly decentralised land management and planning system. Under the Shanghai Municipal Government, there are 18 district units, 17 with urban designation (district, or *qu*) and one rural (county, or *xian*). The adoption of a two-tier structure of urban management has led to a highly aggressive role of district governments in the process of urban development. They have gained substantial power to regulate development, including project approval and registration, and issuing of planning and building permits and land leasing certificates (F. Wu, 1999; W. Wu, 1999; Wu, 2002a). Further devolution has given their subordinates, sub-district governments, a number of regulatory functions, including approval of housing development plans, site occupation licensing, and levying penalties for illegal construction (Wu, 2002a). Many development activities actually take place at the district level, where market forces may have a much stronger influence in formulating a development agenda. With the authority of managing local revenue and land, many district governments have adopted pro-growth policies and have become business partners themselves with real estate and other companies (Zhang, 2002). However, in mid-2000 the city enacted a new regulation, depriving all district governments of the approval right of land leasing. Instead the Shanghai Municipal Housing and Land Administration had the sole authority, and could stop the leasing approval of land for such projects as shopping malls, entertainment centres, golf courses, and grade A villas and office buildings (Yusuf & Wu, 2002). But a recent mandate has

again decentralised such approval right back down to district governments.

Even efforts to recentralise land control fall short of slowing down the overall pace of development because of the agency of local governments (particularly at the district level). Public-owned development companies have been established by either municipal or district governments with public money. They dominate the primary land market, acquiring and selling land of non-urban uses or existing urban land to developers. Funded by public money, quasi-public development companies are often set up under the name of an independent business. This is a safe way for government agencies to generate revenue without direct involvement in business (Zhang, 2002).

The establishment of the land leasing system has strengthened the status of the municipality as the most powerful manager of state land. Since land is the most valuable commodity under the control of a municipal government, generating revenues from leasing land use rights and charging land use fees has become a popular local practice (Wu, 1998; Zhang, 2000). The continued dominance of administrative land allocation in the dual land systems has fostered a grey market, taking substantial income away from the state. This is primarily due to the large difference between market land prices and the relatively low cost of administrative allocation (Xie, Ghanbari Parsa, & Redding, 2002). Local governments often are reluctant to transfer land-use rights by transparent forms of bidding and auction at market rates, because more revenues from such sales would have to be remitted to the central government. So transfers through behind-the-door negotiation is favoured (Zhu, 2002). To rein in such local manoeuvres, the central government mandated in 2005 that all land transactions go through public bidding (*zhao pai gua*). But this recent move has yet to show a substantial impact on altering land development patterns.

As the land-lease system has gradually allowed local governments to gain control of state land, alliances between local governments and land leaseholds have been formed as well. Negotiated land leasing becomes an instrument for local governments to manage the city. The change in the land-use system and massive capital flowing into the built environment has raised potential rent. Through relocating residents and changing land uses, developers could make huge profits (Li, 1997; F. Wu, 1999; W. Wu, 1999; Zhang, 2000; Zhu, 1994). If a site is planned for redevelopment, sitting tenants need to be compensated. Instead of direct negotiation between public projects and farmers in land acquisition, the

municipal government can first acquire land and then transfer the use right to projects involved. This approach speeds up land acquisition through a standard compensation procedure and encourages the sharing of common facilities (Wu, 1998, 2002a).

With land reform, state work units have joined the real-estate business, partially to retain the development rights of their existing land (F. Wu, 1999; W. Wu, 1999; Zhu, 2002). The involvement of these units and local governments complicates the development process. Real-estate development companies are connected with various government branches through formal institutional linkages and/or informal personal contacts. They are often required to undertake functions of welfare provision as well as profit generation (F. Wu, 1999; W. Wu, 1999). This system co-exists with commercialised urban development. Many development projects are undertaken by companies owned either by one of the district governments or a large work unit.

As a result of this rising array of stakeholders in the development process, planning often assumes a passive role, following rather than leading the pattern of land development. Planners are usually under great pressure from local governments to play an active role in the competition with other local jurisdictions for capital and industries. The common pro-development interest has bound local bureaucracy and developers into an informal coalition. The constantly shifting balances of power between the government and economic interests have also complicated the implementation of urban plans. Efforts of planners are often blocked by ill-defined enforcement procedures and numerous concessions made to high-profile developments (Gaubatz, 1999; Xie et al., 2002; Zhu, 1999).

#### 4.3. Conclusion

Shanghai's built-up area is expanding steadily, as a result of economic growth, industrial consolidation, global investment, and rural–urban migration. The footprint of the city grows more than necessary because of fragmentation in urbanisation in the city fringe. Beyond the compact core, development tends to be non-contiguous and leap-frogging. Industrial use is probably most responsible for the loss of density at the metropolitan level. Given the long period of growth ahead, such development patterns will translate into large losses in terms of land consumption. A World Bank study (2008) shows that the intensity of land use in Shanghai is actually quite low by international standards, even though it has increased over time. In particular, land allocation to industrial use is between

two to three times that in comparable global cities elsewhere with functioning land markets.

At the root of fragmented expansion is the increasingly market-driven development process that collides with government interests. Local government has become a key stakeholder in urban development, seeking a development strategy that can stimulate growth and expand its revenue base. Since land is the most valuable commodity under the control of the municipal government, generating revenues from leasing land use rights and charging land use fees has become a popular local practice. On the other hand, the local state's very weak planning capacity and hunger for revenue and foreign investment undermine its ability to exercise control over land use. In its current practice, land leasing and transfer also are driven by the short-

term interests of local governments, instead of long-term land management strategies.

With rising income and increasing availability of the private car, no doubt there is demand for suburban living. Given China's unprecedented rate of economic growth and pace of urbanisation, spatial expansion in its cities is likely to continue steadily. With an already intense population–land ratio, following the path of suburbanisation and urban sprawl as seen in some industrialised countries is not an option for its cities. Increased land use efficiency can come from more infill development, higher density, and more contiguous expansion. But more importantly, it calls into question how the new developmentalist local state ought to build a more transparent land market, on the one hand, and a stronger capacity for planning and development control, on the other.