

Real Estate Development and the Transformation of Urban Space in China's Transitional Economy with Special Reference to Shanghai

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Property-led urban development has become a major feature of Chinese cities since the 1990s. Numerous efforts have been made to document policy and institutional changes in China. Less understood is the investment structure. The aim of this paper is thus to examine the dynamics of real estate investment and its impact on urban space.

In the next section, three hypotheses about real estate development are developed. The changing investment structure related to the hypotheses is examined in the second section. Then, the impact of real estate development on urban space is discussed. In the conclusion, the complexity of Chinese cities and the significance of urban China studies are highlighted.

Hypotheses of Real Estate Development

In this paper I develop three hypotheses regarding real estate dynamics and urban transformation in China. The first hypothesis is derived from Bian and Logan's thesis of 'power persistence' in the transitional economy (Bian and Logan, 1996). The thesis suggests that in a transitional economy the newly introduced market mechanism does not replace the mechanism of a redistributive economy but rather is grafted into the existing institutional framework. In essence, the market and non-market elements are mixed and coexist. An outstanding feature of the socialist city is the organization of economic and urban development on the basis of state work-units. The reform

did not break this basic form of organization but rather introduced incentives to state work-units to increase the productivity. The second and third hypotheses are developed with understandings, respectively, of increasing importance of globalization and of proactive local governance. Each hypothesis will be discussed below.

The first hypothesis states that in the new urban development process capital is transferred from the production to consumption sphere at the enterprise level. Due to the introduction of real estate markets through housing and land reforms, the preserved institutional form - the state work units - has a wide range of opportunities to 'capitalize' state properties. Because of the dual effect of marketization and decentralization, the thrust of seeking local interests is no longer constrained by conventional planning. This on the one hand created new incentives to increase investment in housing production but on the other hand hurt production by diverting capital away from more productive areas. The use of productive funds in collective consumption embodies not only 'irregular' or illegal behavior or such as corruption but also 'normal' institutional behavior such as the allocation of commodity housing to employees at discount prices. As a result, at the microscopic level (i.e. state-owned enterprises), the shift of capital from the productive area to real estate development occurred. The expansion of in-kind benefits provided by state work-units is a primary source of capital transference into the built environment. Capital transference could also take other routes, for example the setting up of a development company or a joint venture in which capital is contributed by the state firm.

The second hypothesis states that foreign capital has been making significant contribution to real estate development, along with globalization and the continuity of China's open-door policy. The hypothesis, derived from a wider understanding of globalization, emphasise the exogenous factor of Chinese urban development. For example, Wu (1997) pointed out that foreign capital plays a role to link the global and local spheres. In the Pearl River Delta, Sit and Yang (1997) argued that urbanization is mainly induced by investment from Hong Kong and Macao and specialized in export processing and manufacturing sectors. Small and medium towns created in this externally driven industrialization process are 'industrial towns' purely for the making of a profit rather than an integrated urban community (Eng, 1997). Regarding to the large cities, Jiang et al (1998) suggested that foreign investment led to the sustained increase in the real estate price against the tightening of the macroeconomic control over real estate investment. The literature highlights the importance of foreign capital in China's recent urban development. This is evidenced by the impressive growth of FDI in China. Only Lardy (1996) argued that the contribution of foreign capital to capital formation might be overestimated.

The third hypothesis is a step forward from the thesis of 'power persistence' (Bian and Logan, 1996), suggesting the more proactive role of the local government. In particular, the role in the transference of capital to the

built environment is achieved through the city government's entrepreneurial behavior in land revenue generation. The power persistence thesis only points out the continuance of the state in development organization. In a transitional economy, however, reshuffling resource control creates new interests and power. The local (territorial) government has emerged as a powerful regulator and land supplier in real estate development. This power is newly created rather than persisted. The active involvement in the promotion of urban development is not unique here. Place promotion is becoming the key feature of urban governance in the contemporary postfordist society (Short et al, 1993). The global city such as London and New York in the 1980s relied on the property industry as a vehicle for local development (Fainstein, 1994). In China the land leasing system provides a quite unique mechanism for the local state to intervene the real estate sector. The consequence of local state's involvement is capital injection in the built environment through the extraction and re-investment functions of the state. In the East and West, the need for entrepreneurial governance is justified by the discourse about the increasing mobility of capital and hence inter-city competition.

To test these hypotheses we need to investigate in detail capital investment by both enterprises and local governments. This is a challenging task, as land revenue and income are sensitive issues. It is possible, however, to identify the trend of capital shift through the publicly available data, though the detailed routes and concrete forms of capital transference are still subject to further investigation. A caveat is needed about the accuracy of official information about investment in real estate. But we understand through observation that the inaccuracy may underestimate rather than overestimate the trend - this is because real estate investment may be disguised under industrial development but there is no reason for a genuine industrial project to register as a property development company.

Dynamics of Real Estate Development

The Growth of Real Estate Investment

Contrary to the common wisdom, the housing reform was not to develop a market-oriented housing provision system at the right beginning. Rather, it aimed to increase the housing stock by whatever means possible to ease the problem of housing shortage. The policy required local governments, state-owned enterprises as well as individuals to make contribution to housing investment. This is essentially a resource decentralization process. While the increase in the wage was subject to state control, work-units were allowed to use retained profits to invest in housing development and subsequently to relocate subsidised housing to their employees.

Table 10.1. Annual housing completion in Shanghai, 1990-96 (floor space in 1,000 m²)

	Total Housing			Capital Construction		Update and Renewal		Collective housing		Commodity Housing	
	Floor space	Floor space	%	Floor space	%	Floor space	%	Floor space	%	Floor space	%
1990	4,219	1,537	36.4	1,715	40.6	128	3.0	739	17.5		
1991	4,777	1,578	33.0	2,133	44.7	96	2.0	970	20.3		
1992	5,435	2,268	41.7	1,950	35.9	112	2.1	1,134	20.9		
1993	6,165	2,201	35.7	2,332	37.8	272	4.4	1,360	22.1		
1994	8,736	2,258	25.8	3,058	35.0	222	2.5	3,199	36.6		
1995	12,689	3,175	25.0	3,847	30.3	369	2.9	5,298	41.8		
1996	15,095	2,002	13.3	2,795	18.5	375	2.5	9,923	65.7		

Source: Shanghai Statistical Bureau, 1997.

Various studies have already suggested that, while the production of commodity housing is gradually undertaken by real estate companies, the allocation of housing is still mediated through the state work-unit system (Wang and Murie, 1996; Wu, 1996; Zhou and Logan, 1996). For example, in Beijing, the annual completion of housing floor space averaged at about 8 million m² in the mid-1990s. About half was constructed through self-built and joint-built by work-units. Commodity housing produced by the real estate companies accounts for the other half. But among the housing developed by real estate companies about half was used for the compensation and the municipal government. The floor space sold in the market was only 2 million m², accounting for no more than one quarter of the total housing produced (Deng, 1998).

The role of real estate development, however, varies from city to city and has been strengthened by further housing reform policies. In Shanghai, commodity housing accounted 65.7 percent of the total housing completed in 1996. Table 10.1 represents the changing structure of housing production in Shanghai. It can be seen that the share of market-based production has increased from about 20 percent in 1990 to about 65 percent in 1996. Among commodity housing, the sale to individual at market prices also increased. In southern China, for example Shenzhen and Guangzhou, housing sold to individual buyers was as high as, respectively, 91 percent and 87 percent in 1997. In Shanghai, about 79 percent of commodity housing were sold to individuals in 1997, whereas the figure was only 40 percent in Beijing.

Because various actors are involved (including state-owned enterprises and foreign investors), housing investment in Shanghai increased from 0.2 billion in 1978 to 43.4 billion in 1996. The rate of growth is unprecedented in history. If we calculate the rate of growth as the difference between two consecutive years divided by the value of the previous year, the velocity of change is much obvious. At the peak of the building boom (1994), the growth rate of housing investment reached 333 percent. The fixed investment has also seen a dramatic increase. Between 1992-3, the annual growth rate was about 80 percent. The completion of housing space is less remarkable but still obvious at a growth rate of 14 percent. Nonetheless, the supply of housing increased to 15 million m² in 1995. And the annual growth rate reached 45 percent.

The boom of real estate development is clearly reflected by the increase of real estate investment in the share of investment in fixed assets, which refers to the amount of work done in construction and purchase of fixed assets, each expressed in monetary terms (Shanghai Statistical Bureau, 1997). The components of investment in fixed assets include capital construction investment (referring to the new construction), technical updating and transformation (referring to the additional investment in existing assets), other investment by state-owned enterprises, investment by urban collective enterprises, and a separate item called 'investment in real estate'. The investment in real estate has been separated from the first two items since 1990. It mainly refers to the investment in the development of properties that can be sold in markets (commodity housing and offices). Capital construction investment can also be used for housing production but housing produced cannot be sold in the market. The proportion of capital construction investment in housing, however, is decreasing. In 1996, only 13 percent of housing floor space completed was invested by capital construction investment. Figure 10.1 shows the frenetic growth in real estate investment between 1993-94. The annual growth rate reached 433 percent in 1994. In the same year, the central government tightened the macroeconomic policy to control real estate investment. Consequently, the rate of growth dropped to 297 percent in 1995 and down to 41 percent in 1996.

Investment Structure

Investment in real estate has increased at an unprecedented pace during the building boom. But where did capital come from? The question seems difficult to answer without tracing the movement of capital. However, examining the changes in the structure of investment can reveal the shift of capital from one area to another. Indeed, urban China has experienced a series of structural changes. With reference to Shanghai, these structural tendencies are summarized as follows:

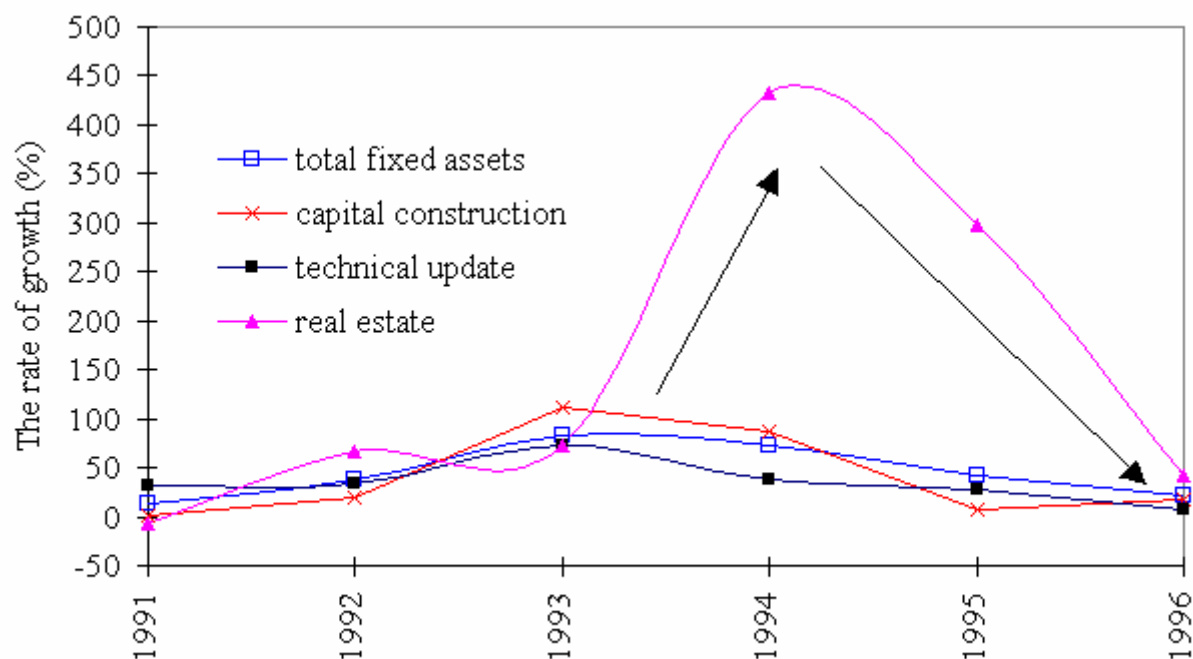


Figure 10.1. The growth rate of the total investment in fixed assets and its composition between 1991-6.

- Intensification of investment in fixed assets, infrastructure and housing in relation to GDP: for example, investment in fixed assets has increased from 29 percent to 67 percent of GDP from 1992-96.
- Increase in the share of wages in GDP and thus accumulated saving deposit. However, the increase in the latter is much higher than in the former, suggesting the increase in the grey income and in-kind benefits. The banks under the high saving rate need to find the outlet of loans.
- Increasing disparity between housing investment and housing affordability supported by wages: because of the lack of measures to secure loans to individuals, for example repossession of property, housing mortgage is underdeveloped. Instead, banks lend capital to various development companies.
- Increase in the share of housing investment in investment in fixed assets: the share increased from 8.4 percent in 1979 to 13.6 percent in 1990, to the peak of 28.2 percent in 1995, and back to 24.1 percent in 1997. In the booming years, the falling profit rate in manufacturing industries made a sharp contrast with the windfall profit in real estate.
- Increase in housing price before 1995. The above logic cannot stand unless there is some support / demand for housing, thus sustaining the price. Here the logic closed its loop - the deep involvement of state work-units in housing consumption. In other words, the in-kind distribution of housing had sustained the strong demand until the in-kind distribution was abolished in late 1998.

To put various clues together, we can piece out a wide picture of urban dynamics in the post-reform era. The key mechanism of the reform is to redefine the right of deriving economic benefits. The right is redistributed to the basic units of the economy so as to raise the incentive for production. The rapid urban development is not based on the end-consumer demand but rather a result of pumping investment in previously constrained 'non-productive' areas. The gap between nominal income and the increasing housing consumption is filled by the persistent role of work-unit. The involvement is logical, at least from the viewpoint of relative profitability: the declining profit rate in the production sphere in the transition from the shortage economy to over-accumulated economy has driven both the banks and enterprises to seek other outlets for a higher profit. Quasi-market development companies emerged and fulfilled this function.

Contribution of Foreign Investment

The contribution of foreign investment to the development of coastal cities in China is undeniable. Particularly for the small cities in South China investment from Hong Kong and Taiwan has become an important source of capital. The influence of foreign investment is related to its mobility and its nature as an external source outside the control of the state. Despite a later comer, Shanghai has seen significant growth of foreign investment. Foreign capital utilized grew from 2.24 billion US dollars in 1992 to 7.51 billion US dollars in 1996, and foreign direct investment (FDI) increased from 1.26 billion US dollars to 4.72 billion US dollars in the same period. The structure of foreign investment also saw some changes. Investment in the real estate increased. In 1996, the real estate attracted about 22.3 percent of FDI and became the second largest sector to absorb foreign capital. In comparison, the primary sector accounted for 0.07 percent of the total foreign capital utilised, and the secondary sector for 53.4 percent.

In terms of the contribution of foreign investment to capital formation in real estate, in 1996 about 1.05 billion US dollars of foreign investment was in the real estate sector. The total investment in real estate was, however, 65.78 billion yuan. Then, the ratio of foreign capital in real estate to the total real estate investment was 13.4 percent, assuming an exchange rate of 1US dollar = 8.4 yuan. The figure is relatively low, considering the rapid growth of foreign investment. If we calculate the ratio of foreign investment to investment in fixed assets, we can find that the ratio has been in general increasing since the mid-1980s. However, the ratio decreased in the period of building boom, that is, from 1992-95, the ratio decreased from 0.47 to 0.21. Similarly, comparing foreign investment in real estate and the total investment in housing, we can find the ratio of the former to the later decreased from 0.60

to 0.14. What these figures suggest is that the growth of foreign investment is outstripped by the domestic source of investment in both fixed assets and housing. The change further suggests that measured by quantity foreign investment did not form the dominant source of capital in real estate market. Or put it differently, in terms of capital formation, real estate development was not driven directly by foreign investment. Evidence suggests that real estate development involved mainly overseas Chinese developers and, to a less extent, Japanese developers rather than developers from Europe and North America.

Local Economic Development and Place Promotion

Foreign investment may not directly contribute to capital formation in real estate development. But, as an important source of capital, foreign investment does raise the need to enhance city competitiveness. As a result, local governments began to inject capital to improve urban infrastructure. In Shanghai, investment in infrastructure has grown from 3.6 billion yuan in 1990 to 37.8 yuan in 1996. In the same period, the ratio of infrastructure investment to GDP increased from 5.2 percent to 13.0 percent. The municipality, in charge of land leasing, benefited from land revenue, thus creating the incentive to investment in land development. The local governments began to use the land leasing instrument to promote local economic growth, which now becomes the key theme in urban management. The designation of the Pudong New Area and remaking Shanghai as a financial and trade center in China provide a lot of investment opportunities. In the Eighth Five Year Plan and Ninth Five Year Plan key infrastructure projects were developed, which greatly improved the investment environment.

Summary

To summarize the findings in relation to the hypotheses raised in the first section, we can find that the formation of real estate markets involves a historical process of institutional change. Starting from power decentralization and redistribution of economic benefits, the process has been characterized by two major changes. First, some resources have been transferred outside the state control. Private investment and foreign investment emerged. Second, some resources have been decentralized from the central to local governments. For example, the municipality began to control the state land, thus gaining interests in land development. As a result, multiple channels of investment have been opened up. As a progressive experiment rather than a coherent social engineering project, the economic reform in China adopted a pragmatic and gradualist approach. The policy aimed to encourage multiple actors - the

central state, the local government, state work-units, and individuals - to participate in housing development. To achieve this purpose, the 'partial and gradual' reform implanted economic incentives in urban development processes by redefining and redistributing property rights among these actors. For example, the state-owned enterprises are allowed to retain the part of their profit to improve housing conditions.

Relating to the first hypothesis, we have seen the persistence of state work-units in the urban development process and the shift of investment from the production to the built environment. This is evidenced by the structural change in investment and the burgeoning quasi development companies set up by various state-owned enterprises. The second hypothesis is, however, less supported by the data. In terms of the structure of foreign investment, real estate has become an important sector. Foreign investment in real estate did increase over the period of rapid real estate development. However, foreign investment accounted for only 13 percent of direct capital formation in real estate, even in the cities such as Shanghai. This suggests that the influence of foreign investment in the real estate did not lie in the quantity of capital it provides. Related to this understanding is the third hypothesis that the local state apparatus is deeply involved in place promotion. Real estate development is becoming an important arena for massive domestic investment and is used as a key vehicle for the city promotional policy.

The Chinese economy has transformed from a shortage to over-accumulation regime. In the 1990s, the excess capacity of industries became a major problem. Faced with the lack of effective demand, profits and capacity utilization began to fall. The Asian financial crisis in 1997 further exacerbated the problem, as the strong currency compared with other Asian currencies began to hurt the export sector. As a result, real estate development is chosen as a new growth pole. Housing consumption was hoped to stimulate domestic demand, thus supporting the economic growth target. In 1998, the central bank supported the increase in housing credit and encouraged commercial banks to release mortgage to households. Under the new mortgage scheme about 100 billion yuan is prepared.

In the light of the complex objectives behind real estate development, we should not expect that urban transformation in China be summarized by a single notion of the 'market transition'. For example, so-called commodity housing in fact varies widely and has different types of property rights. The complexity in spatial terms is even less understood.

Transformation of Urban Space

Statistical data about investment in housing are now available for us to understand the temporal changes in investment structure. However, due to the lack of spatially disaggregated data at the intra-urban scale, the understanding of the implication of real estate investment for urban spatial structure is

limited. Empirical studies are yet to be developed so as to shed light on the (intra-urban) distribution of population, land use, economic activities and developments in the transition to a market economy.

The impacts of real estate development on urban space, however, are obvious. Szelenyi (1996:310-315) discussed three dimensions of the spatial consequence of post-communist transformation, namely the possible end of under-urbanism, increasing diversity, and suburbanization and inner urban decay. Bertaud and Renaud (1997) observed the problem of the suburban residential areas developed in the era of state socialism in the former Soviet Union. Andrusz et al (1996) examined the changes in urban space in East European cities, in particular the modification of the 'socialist city' model proposed by French and Hamilton (1979). For Chinese cities, Dowall (1994) suggested that the introduction of land prices would provide capital for relocation of factories and thus redevelopment of industrial land. Yeh and Wu (1996) examined the impacts of the establishment of a new land leasing system on the organizational forms of land development. Evidence suggests that Chinese cities are now witnessing accelerated urban land restructuring and suburban land expansion (Ning and Tang, 1996; Wu and Yeh, 2000). As a result, the urban space in China is now being re-modelled.

Urban space was characterized by 'cellular structure' in the socialist era. Through work-unit based housing provision, the workplace and residence maintained a strong link. This led to the differentiation of urban space according to land use rather than social stratification. Yeh et al (1995) studied social areas in Guangzhou and found that unlike social spatial structure in Western cities, which commonly differentiated by socio-economic status, family status, and ethnicity, the main components of social space in Guangzhou are population density, education, employment, house quality and household composition. Accordingly, five types of social areas have been identified: (1) high-density, mixed-function areas, (2) cadre areas, (3) worker areas, (4) intellectual areas, and (5) scattered agricultural areas. Wu (1992) pointed out the complexity of urban space in China and classified residential areas into four major types: (1) traditional neighborhoods in the old city area and mainly developed in the pre-1949 period, (2) single work-unit living quarter, largely associated with industrial development, with clear boundaries (walls) defining land uses, and mainly developed in the period from 1949-78, (3) mixed comprehensive communities, in the suburban areas, jointly developed by work-units or through comprehensive development by the municipality, and developed since the late 1970s, (4) rural-urban fringe villages, related to urban encroachment on rural villages, developed spontaneously and sometimes 'illegally' since the late 1970s. In fact, because of the 'thick' layer of pre-socialist legacy, especially in the cities like Shanghai, urban space had not been thoroughly reshaped according to the socialist ideology. Rather, the old city area still saw high density, mixed land uses, and residential communities managed by 'street offices' (*jiedao banshichu*), while in the suburban area the living quarters of state workers were developed and

often managed by work units themselves.

The introduction of real estate development has produced a number of impacts on urban space. Studies on urban space so far had been confined to a few large cities such as Shanghai, Guangzhou and Beijing and mainly by the use of land data (Wu and Yeh, 1997; Wu, 1998a, b; Wu and Yeh, 2000), by characterising urban landscapes (Wu, 1998c; Gaubatz, 1999), or by identifying the implication of institutional changes such as housing reform (Wang and Murie, 2000). These studies suggested the transformation of urban space under real estate development. First, housing and land reforms have accelerated land use conversions. In the central area, urban redevelopment occurred at an unprecedented scale, leading to the reshaping of urban skylines (Wu, 2000).

Second, because the revenue generated by real estate development, the enthusiasm of local governments including county and district governments in the promotion of land development is also unprecedented. More importantly, by real estate development the local governments have gained the instrument on the basis of land leasing to stimulate local economic growth. This has led to a local development approach, which stimulates the dispersal of development. The increasing land rent gradient has also driven industrial land uses to the suburban areas. The urban space has been transformed from a compact to a dispersed metropolis. Related to the dispersal of land use is the polycentric development. Economic and Technological Development Zones (ETDZs) have formed sub-centers. The Guagnzhou ETDZ is mainly based on industrial and export-oriented activities, while the Pudong New Area in Shanghai has taken over certain downtown and central business district (CBD) functions. Competition is intensified between the old city districts and newly merged subcenters. For example, new developments in the form of skyscrapers in the Dongshang District and Tianhe District undertake service functions in Guagnzhou. The Lujiazui Finance and Trade Zone is becoming a strong competitor of the Bund in Shanghai.

Third, real estate development has produced various forms and typology of residential space. The tight relationship between the workspace and residence has been broken, though the influence of work-units may continue. Wang and Murie (2000) observed that developers adopted different design standards to target different 'consumer' groups. For ordinary and affordable housing projects, multi-story buildings plus a few high-rise tower blocks are common building forms. For the rich, standards vary from the cottage and detached houses to expensive apartments. The inequality of housing conditions between work-units is likely to persist (Logan et al, 1999)

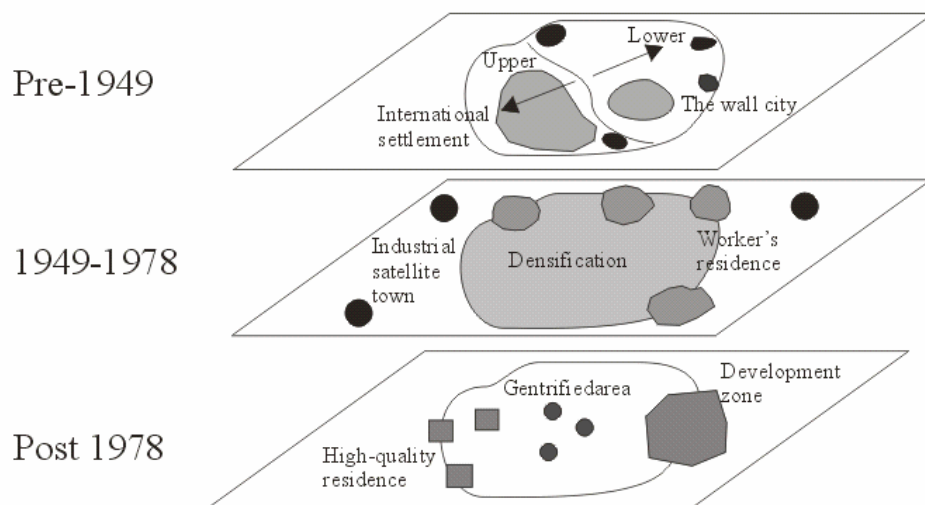


Figure 10.2. The layer of urban spatial structure in three historical periods in urban China

but this may be complicated by the changing social structure. For example, private businessmen, managers of joint ventures and expatriate of multinationals can afford luxury and exclusive housing. While the overall housing condition has been improved, the contrast between high quality housing and housing in dilapidated areas is increasing.

The urban space in the post reform has been transformed by real estate development. But as discussed earlier the transition is not simply the establishment of the market logic. Rather the institutional arrangement is involved. As a result, the urban space is mixed with different layers of urban spatial structure produced in different periods (see figure 10.2). In the pre-1949 period, the coexistence of the Wall City with international settlements presented a distinctive feature. The urban space was differentiated into the 'upper' and 'lower' end in Shanghai. Rural migrants flooded into the city after the collapse of the rural agricultural economy, forming shantytowns along the fringe areas and the river. The differentiation of urban space was strengthened by the sharp land price difference in different areas.

In the period from 1949-78, the differentiation of urban space began to change. The Peoples' government was faced with the urgent tasks to eliminate the extreme poverty and to improve living conditions. Starting from the 1950s, workers' villages have been developed according to the principle of maximizing access to workplaces. However, due to the strict control over the non-productive investment, such a 'planned' way of development could not be implemented city-wide. Instead, population growth was largely

accommodated through densification of existing urban areas. Some inner urban areas saw extreme high density, even measured by the standard of the Chinese cities. In Shanghai, the government did formulate a population decentralization strategy. However, the strategy was doomed, simply because of the lack of the mechanism and needed resource to redistribute population. Instead, the effect of population decentralization, mainly achieved through the set up of industrial satellite towns, was limited.

In the third period of urban development starting from 1978, new elements emerged. The precise form of new development varies from city to city, depending on the location of the city and the progress in land and housing reform. With reference to Shanghai, the new pattern includes the establishment of development zones and the emergence of selective gentrified areas and high-quality residence. The opening up of a real estate market re-established the land rent gradient. Factories are relocated to the periphery and so are the residents on redevelopment sites. However, redevelopment through real estate is selective. In part, this is related to the fact that the distribution of FDI is more selective than that of domestic firms (Wu, 1999a). The location of redevelopment projects is also conditioned by the dynamics of real estate market itself. The dilapidated areas with extreme high density and poor infrastructure have been left out in the commercial redevelopment projects. In fact, it becomes more and more difficult for remaining areas of shack dwellers to attract commercial projects if the compensation standard is maintained. In some places, residents are relocated to the peripheral areas. With the emergence of development zones, the distribution of economic activities is more decentralized and polycentric in the metropolitan areas. One additional element, which is not portrayed in this proposed layer structure model, is rural migrant communities. This is because the concentration of rural migrants varies widely from city to city. In Beijing, for example, migrants from the same rural areas tend to cluster into 'migrant enclaves', while in other cities like Shanghai the distribution of rural migrants is more dispersal, perhaps due to the tighter control.

The evolution of urban space has its historical continuity, which means that the new layer is built upon the existing urban fabric. As a result, the urban space in post-reform China is composed by overlapped layers built in different historical periods. Empirical studies had so far been limited to Guangzhou, Shanghai, Beijing and a few other cities. Moreover, comparative studies are scarce to provide an answer whether the transformation of Chinese cities is unique in the post-socialist transition (Bertaud and Renaud, 1997; Andrusz et al. 1996). In the study of urban spatial structures, attention has been paid to the change in land uses rather than population distribution and social differentiation. The transformation of urban space is not only of theoretical significance but also of profound welfare implications. Will Chinese cities continue to see social polarization? With the rising unemployment rate, the retreat of state welfare provision, and the increasing number of rural migrants,

will the social differentiation be projected into urban spatial inequality?

Conclusion

Real estate development in China has always juggled with different objectives. At the beginning of the reform it was the overwhelming necessity to ease housing shortage. Now it is chosen as a new growth pole of the economy. Throughout the market-oriented institutional reform is *not* the priority. After all, the reform is not a social engineering project. It is thus important to analyze the political economy of real estate development. The notion of the 'transition from the planned to market economy' might be popular owing to its simplicity but cannot summarize complexity of the change.

Equally simplistic is to see the development of Chinese cities solely driven by globalization and foreign investment. There has been a strong local dimension of real estate development, though foreign capital helped to fuel the building boom in the 1990s. The thesis of 'power persistence' of Bian and Logan (1996) correctly captured such a local dimension. The studies on the production of landed property production and place promotional activities show that a new version of urban growth machine based on real estate development is under formation in China (Wu, 1999b; 2000). This chapter further analyzed in detail the structure of investment related to real estate development and largely confirmed the shifted capital movement, a hypothesis derived from the thesis of power persistence.

The findings further highlight the complexity of real estate development in China and suggest the need for empirical research on the spatial transformation of Chinese cities. The changes in the real estate development have enormous implications for urban spatial structures. However, so far our understanding of spatial aspects of Chinese cities had been very crude. To enhance our knowledge, new databases at a finer spatial resolution (such as 2000 Population Census and property data) are needed to identify more precisely the trend of changes in land uses, population, property and economic activities. Second, it would be fruitful to develop some empirical models to describe spatial distribution. In the previous section, a conceptual model of layered urban space was used to discuss its transformation. However, it is necessary to develop more quantifiable measures to pave a way for comparative studies.