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Author(s): Li Xun, Xu Xianxiang and Li Zhigang

Source: *China Review*, Spring 2010, Vol. 10, No. 1, Special Issue: Urbanization in China: Processes and Policies (Spring 2010), pp. 11-37

Published by: The Chinese University of Hong Kong Press

Stable URL: https://www.jstor.org/stable/23462241

The China Review, Vol. 10, No. 1 (Spring 2010), 11–38

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Li Xun, Xu Xianxiang and Li Zhigang

Abstract

Property rights have an incentive effect on the behaviours of economic agents. This paper proposes that the system of paying for the use of state-owned land has engendered a dualistic structure of land property rights in urban China, including full urban state-owned land property rights and limited rural collective land property rights. It argues that both market supply and planning acquisition offer incentives for governments to access land use residuals. In the context of fiscal decentralization, land rent residuals accelerate urbanization by

Li Xun is Professor at the Center for Urban and Regional Studies, Center of Studies of Hong Kong, Macao and the Pearl River Delta, Sun Yat-sen University, Guangzhou, China. His research interests are in urbanization and related economic geographical issues in urban China.

Xu Xianxiang is Professor in the Lingnan College, Center of Studies of Hong Kong, Macao and the Pearl River Delta, Sun Yat-sen University. His research concentrates on economic development, especially urbanization in the Pearl River Delta.

Li Zhigang is Associate Professor at the Center for Urban and Regional Studies, Center of Studies of Hong Kong, Macao and the Pearl River Delta, Sun Yat-sen University. His research includes urbanization, planning and related spatial issues in urban China.

[*] The authors gratefully acknowledge the financial support from the National Science Foundation (No. 40435013, No. 40871066, No. 40971095, No.70803055, No. 40771067). This project is also supported by the MOE Project of Key Research Institute of Humanities and Social Sciences at Universities (08JJD820170).

encouraging urban and rural governments to extend and intensify land usage. The problem of *chengzhongcun* appears when rural institutions seek residuals. To improve the quality of China's urbanization, Chinese government at various levels needs to improve the system of property rights through reforming rural collective property rights.

Introduction

China, the "Dragon of the Orient," has become one of the largest economies in the world after just two decades of high-speed economic development. At the same time, an unprecedented restructuring accompanied by urbanization has been transforming Chinese society. The urban population of China in 1978 was less than 18%, but has now increased to about 40%.[1] High-speed urbanization accompanied by a rapidly growing economy has been reshaping the landscape of Chinese cities. Within the wide literature in this field, numerous new phenomena have been reported.[2] First, the high-speed expansion of urban land has been noted.[3] Government-oriented new urban district construction, for instance, has been widely recorded.[4] From provincial capital cities to small towns, and from inland regions to coastal areas, local governments have set up numerous development zones, such as Economic and Technological Development Zones (ETDZ) and High Technology Development Zones (HTDZ). Consequently, there were 2,700 development zones at the end of 1992 compared to only 117 in 1991.[5] In addition, these new kinds of districts have different levels of judicial approval, from central government, province and city to town and county. Their sizes vary from a medium-sized city to a few parcels of land. In the twenty-first century, new district developments are replacing development zones and becoming the main pattern of urban construction. In order to attract investment, almost all levels of local government have invested heavily in these areas to provide public services and infrastructure.

Second, a high speed rural urbanization has become remarkable. After market reform, villages in developed regions such as the Pearl River Delta (PRD) and the Yangtze River Delta (YRD) developed increasing numbers of industrial enterprises in rural areas and thus their built-up areas expanded dramatically, in a process known as "bottom-up" urbanization. Rural industrialization became the major driving force behind such a pattern of urbanization.[6] In this way, a new track of spontaneous urbanization opened up for rural residents. This has engendered

very active urbanization in rural areas, featuring the transformation of local landscapes, migration of villagers, and a shift of employment out of agriculture into non-agricultural sectors. Such rural urbanization has been termed "urbanization from below."[7] The Asian model of urbanization, conceptualized as "desakota" by McGee, has sometimes also been used to describe such an urbanization process.[8] Clearly, the process of urbanization in China contains a diversity of patterns. In a recent study, the urbanization of China is seen as a dual-track process characterized by both state-sponsored urbanization (the growth of non-agricultural population) and spontaneous urbanization (TVE-based rural urbanization and the migration of temporary population).[9] In this case, the impact of both institutional forces and market forces on Chinese urbanization is highlighted.

Third, the "urban village" (*chengzhongcun* in Chinese), has become a new challenge for governments, especially those in the PRD region. Rural villages have been surrounded by newly built city districts, forming a specific urban landscape of villages encircled by built-up areas of cities.[10] Because of the limited affordability of rural migrants, they are excluded from the newly-developed formal housing distribution system, and an incipient housing market has developed in these *chengzhongcun* for them.[11] Through a long-term investigation of the area of Beijing known as "Zhejiang Village," Ma and Xiang[12] disclosed an ethnographic view of the creation of social networks based on migrants' region of origin and the formation of non-state spaces. Fan and Taubmann,[13] as well as Gu and Liu,[14] investigated the social and spatial characteristics of migrant enclaves in Beijing and Shanghai, and their work has shed light on issues of social inequality and spatial segregation. It is found that such areas are characterized by a high density of both construction and inhabitants, most of whom are rural migrants. Therefore, these areas often see a very poor provision of infrastructure, sanitary, or local securities.

Researchers have developed various empirical studies to disclose the underlying mechanisms of these new phenomena. For instance, spatial developments are seen as by-products of local governments' profit-seeking and economic development needs.[15] The development of Town and Village Enterprises (TVEs) and Foreign Direct Investment (FDI) enterprises is taken as the principal force behind rural urbanization.[16] It is also argued that it is the dualistic urban and rural structure which gives birth to *chengzhongcun*.[17] Among these explanations, two institutions

stand out as the main players: urban governments and village committees. Therefore, it is important to inspect closely the institutional mechanisms of these new phenomena. That is, although there is a diversity of explanations for the new urban landscape developing with the urbanization of Chinese cities, the aim of this paper is to determine whether there are common incentive mechanisms underlying the impact of urban governments and village committees.

China is undergoing an unprecedented transformation, featuring a gradual transition from a planned to a market-oriented economy, and the behaviour of institutions during urbanization will inevitably be shaped by this transition. Socioeconomic transformation in China is linked to the reform of both the price system and the management system. Specifically, as a significant component of Chinese economic reform, fiscal decentralization has had an important impact upon the development of local areas. A new relationship between central government and local governments has been constructed,[18] and this new central–local government relationship has affected local governments' behaviour toward business enterprises and market development.[19]

This paper will mainly concentrate on the impact of economic transition upon urbanization. In this case, urbanization is not only seen as a restructuring of the labour force from agricultural to non-agricultural sectors, but also as a transition of property rights from rural to urban. Previous major research into land property rights in urban China has often focused on the incomplete nature of the urban land market,[20] the ambiguity of rural collective property rights, and so on.[21] This paper, however, argues that the mechanism of land rent residuals has the function of providing incentives for governments against the backdrop of fiscal decentralization. The nature of dual property rights embodies benefits varying between urban and rural. At the same time, the urbanization of China involves two types of property rights, that is, urban government and rural collective organization. They behave differently under the influence of different benefits. The paper will then go on to examine the stimulation mechanisms of different types of urbanization. It will discuss the underlying logics of the rapid expansion of urban land, the problems of rural urbanization and *chengzhongcun* in Chinese cities. In the context of rapid urbanization, a diversity of institutional factors will be involved. This paper, however, claims that the incentive effect of land rent residuals upon local institutions should be the main

focus to understand these institutions. It is believed that this viewpoint will provide a fresh dimension for further understanding of the mechanism of urbanization in transitional urban China.

Land Rent Residuals in Urban China

The dualistic system of property rights in China

Land, in terms of both its ownership and use, serves as a kind of property especially when its ownership is able to provide wealth and rights. According to the land law of China, all the land of China belongs to the people, but the de facto land controllers are mainly two bodies: the collective institutions of the state and the village.[22] The division of property rights between the two institutions has significant implications for the land use mechanisms of Chinese cities.

Soon after the Chinese Communist Party came into power in China, the new government developed local institutional systems in both urban and rural areas, i.e. urban governments and village committees. The development of the institutions was underpinned by a series of political actions such as redistribution of property, classification of social groups, deduction of tax, and allocation of military organization to local areas. Among them, land redistribution was the most important institutional tool of the rural areas. As a result, nearly all rural land was equally redistributed into the hands of individual households in the early 1950s. However, privatization is never seen as suiting the demands of socialism, and is not deemed to be applicable to the demands of socialist industrialization. Under the collective system arrangement that was implemented later in the late 1950s, individual peasants lost possession of any means of production, and the production and distribution of all sectors was controlled by collective institutions. Since the members of a collective received the same share of the harvest regardless of differences in individual contributions, the incentive for production was weakened. Accordingly, agricultural productivity was low and the government faced challenging problems of economic shortages through the socialist era. However, rural institutions had to be collectivized for the reasons of pre-reform China's strict communist ideology, and therefore rural land had to be controlled collectively. Accordingly, a new kind of property right, the so-called collective property rights, was created. In line with this, a

new system of land public ownership was implemented, in which there were two types of property rights, i.e. state-owned and collective ownership. Concretely, urban land belongs to the state while rural and suburban land (except some specific areas of land such as those used by the military) belongs to rural collectives.

After 1978, the new designer of China's socialist market economy, Deng Xiaoping and his new market mechanism policy brought wealth and life to China's countryside. A "household production responsibility system" was introduced in 1978 so that a rural household could make its own production decisions for the highest productivity after it had met the production quota of the state. By 1983, 90% of rural households had adopted such a system. In the 1980s, peasants were again authorised to work and therefore hold shares in their lands of responsibility.[23] They even were authorized to keep the produce remaining after a fixed share had been handed over to the state. The Chinese peasants soon devoted their full efforts to the land under their own control. Meanwhile, land in China began to become marketized. In the socialist era urban lands were arbitrarily devalued, therefore the urban land of Chinese cities had to be revalued after market reform. It is such a transition that provides local governments with extra-budgetary revenues. This will be elaborated on in the sections which follow.

Differences in income between collective property rights and state-owned property rights

The structure of land property rights in China shows the features of economic transition, as these two types of land property rights are different. After years of market-oriented economic development, however, the lock on property exchange became an obstacle to the emerging land market for urban development. In the 1980s, China began gradually to construct a new system of land payment usage. The new system, however, enlarged the difference between property rights over urban state-owned land and those over rural collective-owned land.

On the one hand, urban land belongs to the state, but land use rights are separated from land ownership rights. Except the use of administrative allocated land for public welfare, only urban land use rights can be bid for and auctioned in the market, and this has generated a market for land use rights exchange. That is, urban land realizes the value of

property rights through property rights markets. Only land obtained through urban land markets has the full property rights. In contrast, the land property rights of the rural collectives were limited, as they can possess, use, or benefit from their lands, but they could not have the rights to dispose it.[24]

On the other hand, through collectively-owned property rights, rural land belongs to rural collective institutions. First, within the framework of collectively-owned property rights, all rural land is owned by rural collectives, i.e. town/village institutions (mainly village committees). Second, collectively-owned land is mainly in the hands of individual households for the long term, with almost no charges. Nevertheless, any land use change (e.g. from agricultural sector or non-agricultural sectors) or ownership exchange of such land is prohibited by law. This indicates that collective property rights are limited. In this case, rural collective property rights cannot be exchanged directly in land markets; rather, their value has to be realized through further investment or production on the land, such as building factories and renting them out. With regard to the use of such property rights, decisions on exchanges or transfers have to be made by village institutions, i.e. village committees, rather than individuals.

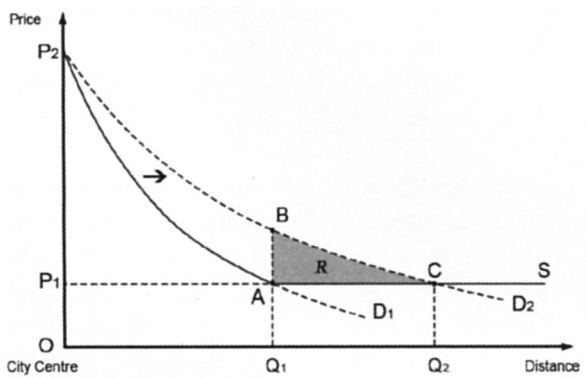
Rural collective lands can be classified into farming fields, construction fields, and reserved fields. After market reform, Chinese governments allowed rural collectives to have land contract rights (*tudi chengbao quan*) over farming fields. Such contract rights demand that the farming fields cannot be used for the non-agricultural sectors. Construction fields, on the other hand, may only be used for constructing town-village enterprises (TVEs), housing villagers, or for public facilities needed by villages. They should not be sold, transferred, or rented for non-farming construction.[25] Thus, the ownership rights of rural collective land is limited.

Property rights in urban China thus exist in a dualistic system: the full property rights of state-owned land in cities and towns, and the limit property rights of rural collectively-owned land. This structure contains marked disparities between rural and urban land in terms of both value realization and land exchange. First, the property rights over urban and town land can be exchanged at market prices; rural collective land property, however, is still exchanged within the mechanisms of the planned economy, so lands can only be used for rural production rather than in a

land market. Second, when there are exchanges between urban and town property rights and rural collective property rights, the land requisition method used by the municipality is still that of the planned economy era. After requisition, the "urbanized" land can be exchanged by the municipality in the land market to obtain extra profits, as the state pay rural collective institutions only limited reimbursement, far below the price when the land is auctioned in the market. For farmland requisition, compensation is based on loss of agricultural products,[26] hence the value of compensation is low. Such a structure has a significant impact upon land-related institutions, as a new type of profit, i.e. land rent residuals, is produced during the interaction of these two types of property rights.

"Land rent residuals" under urbanization

Figure 1. Land Rent Residuals



Source: Arthur O'Sullivan, *Urban Economics*. See Note 27.

The potential profits under the dualistic structure of land property rights therefore becomes land rent residuals. In order to discern the impact of property rights on urbanization in China, we need first to examine the land bid curve under the condition of the full market economy. It is assumed that individuals and enterprises have full property rights under the condition of complete competition. As such, the shape and pattern of these rent curves are determined by the rational choices of individual economic agents within the market. As shown in Figure 1,[27] under the condition of full property rights, region OQ_1

represents a balanced spatial structure including commercial, residential, and industrial areas that are distributed across urban space, from inner city to suburbs. The further from the central city, the lower the rent level, which is shown by the right-inclined curve P_2C. In rural areas, the profit from agricultural products across different regions is nearly the same, as shown by the horizontal line P_1 that represents the rent of rural land. After the rise in the level of urbanization, urban land prices will increase as urban land resources become precious, and the rent curve moves towards the right. Meanwhile, a new curve P_2BC is generated and region Q_1Q_2 indicates rural lands transferring into urban lands. In this way, rural land-owners obtain land profits ABC. Therefore, as shown in Figure 1, because of the existence of the dual structure of land property rights, land rent residuals are produced.

The dual structure of land ownership will firstly impact on land provision. When the rural land indicated by region Q_1Q_2 is transferred into urban land through government acquisition, the price is decided by the government. If variation in location, land fertility and product are disregarded, the price of land acquisition can be taken as rent P_1. Urban governments obtain the land Q_1Q_2 with a payment of P_1, i.e. the payment to peasants for obtaining rural land. After that, the land will be sold in the market to enterprises, with a charge of BC. Accordingly, the urban government obtains profits $R = (P_2 - P_1) \times AC$. R, standing for "land rent residuals," originates from the gap between market price and land acquisition price. During urbanization, the urban government obtains profit R while peasants get payment P_1. Clearly, rent residuals here refer to the gap between the market price and the acquisition price of land. Although R could be partly contributed by the infrastructure built by the city government, which may claim the residual rightfully, most residuals are de facto taken by the city government. Land residuals will be used as an important perspective to decipher the mechanism of urbanization in China.

In the context of the system of publicly owned land, the urban government, as the representative of the state, controls urban land, while rural collective institutions control rural land. The combination of land rent residuals with fiscal decentralization will initiate incentives for both municipal governments and collective institutions, that is, both representatives will strive to maximize their own profits. However, the seeking of land rent residuals is stimulated by the context of fiscal decentralization. To understand land rent residuals, we need to have a close look at

the decentralized system of financial sharing. In the mid-1990s, a decentralized system of financial sharing was put in place between the central government and local governments. The central government released financial authority downwards to local governments and assigned all levels of local government relatively independent financial and other related rights. As in other transitional countries, the reallocation of central power stimulates local governments to keep pace with economic development. Accordingly, China's fiscal system is a stratified structure composed of five levels of government: central, provincial, prefecture, county, and township.

The development of the fiscal contracting system had several stages. First, central fixed revenue was defined to include customs duties, direct tax or profit remittance from central-government-supervised SOEs, and some other taxes. All other revenue fell under local revenues. On average, local revenue accounted for about 66% of total government budgetary revenue over these years.[28] Second, local revenue was divided between central and provincial governments according to predetermined sharing schemes. For example, between 1980 and 1987, Guangdong province agreed to remit a fixed amount per year, and between 1988 and 1993, it agreed to remit an amount that increased by a fixed 9% per year; on the other hand, Guizhou province agreed to receive subsidies that increased by a fixed 10% per year; Jiangsu province, however, agreed to remit a fixed share of revenue to the central government.[29] With this fiscal contracting system, all the provinces are linked together to achieve a balanced development.

However, the actual (*ex post*) expenditure of local government did not necessarily match that from the sharing scheme, as sometimes extra remittances and transfer payments took place between the central government and the provinces. Sometimes the central government even borrowed funds from the provinces. In addition, the central government also made additional transfer payments (not specified in the sharing schemes) to provinces, which often consisted of two categories: earmarked subsidies,[30] such as subsidies to urban areas for food price increases, and matching grants,[31] for example funds for infrastructure such as highway construction. Clearly, the larger this type of *ex post* redistribution, the less important the predetermined revenue-sharing schemes. Consequently, under the new system, local revenue has been redefined as revenue from local taxes and the local portion of shared taxes. The major local taxes now are income tax from local enterprises

other than SOEs, business tax from the sales of services, and personal income tax.

In addition to the budgetary revenue, another category of revenue exists, called "extra-budgetary revenue" (EBR), which consists of tax surcharges and user fees levied by both central and local level government agencies. EBR emerged in the 1950s but only became institutionalized after the reform. Unlike local budgetary revenues, EBR is not subject to sharing with the central government. In 1978, total EBR was about 10% of GDP while total budgetary revenue was about 31%. In 1993, EBR was up to 16% of GDP and budgetary revenue was down to 16% of GDP. While most EBR consists of earnings retained by SOEs or their supervisory government agencies, about 30% of EBR funds are used for government expenditures to supplement the budgetary funds. Against such a backdrop, no matter whether they are urban government or rural collective institutions, local institutions have an impetus to seek land rent residuals as part of EBR, in order to increase government monetary input, improve infrastructure, and thereby accelerate urbanization.[32]

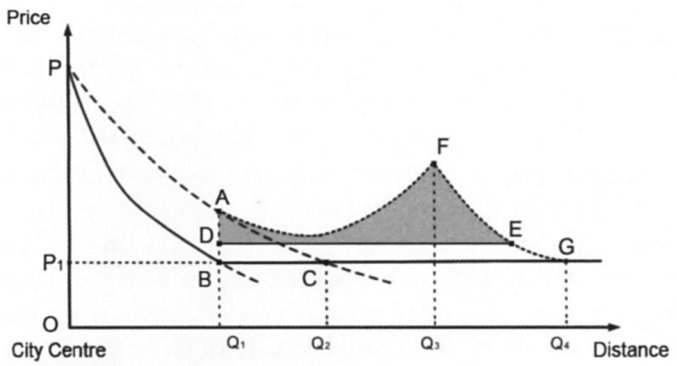
The Incentive Effect of Land Rent Residuals on Different Urbanization Patterns

Government-oriented urban new district construction

With the dual structure of urban and rural land use, urban governments obtain land rent residuals by acting as the representatives of the state to control urban lands during rapid urbanization. As shown in Figure 2, along with the sprawl of urban lands, the boundary of the city expands from Q_1 to Q_2. As a result, the price of urban land increases, as shown by the region PBC. PBC can be further divided into two parts: PBA and ABC; the former is the original price of urban land, while the latter is the enlargement. If the city has completed the transfer of urban land use rights, that is, all the use rights of urban land have been transferred from the state to individuals, companies or institutions, the profits will thus be mainly enjoyed by the owners of the land use rights. If property tax is disregarded, the urban government will have no means of accessing the profit. Nevertheless, land rent residuals provide the urban government with a way to obtain profits. That is, region ABC will become land rent residuals appearing during the transition of land use

rights from rural collectively-owned to state-owned, and it will be held in hand by the urban government.

Figure 2. Land Rent Residuals and Urban Expansion



Source: Compiled by the authors

Nevertheless, urban land expansion cannot maximize land rent residuals. Instead, new district construction is an effective approach, to access land rent residuals, used in most cases by local governments. Through land requisition, the urban government expands the urban boundary to Q_2Q_4, which is thereafter designated as a new urban district, and Q_3 is designated as the new centre of the newly developed district. In this case, local governments often take two measures to promote land rent residuals. First, the urban government invests cost BDEG to build infrastructure, to optimize regional transportation and thereby to raise the potential price of the land expropriated. Meanwhile, the potential rent Q_3 is increased as the government builds large public infrastructure to attract investors. When such construction reaches a certain stage, according to the mechanism of the rent bid curve, line AC goes up around centre Q_3 and forms an up-protruding curve. When land rent residuals ADEF is larger than ABC and BDEG, the urban government will be stimulated to construct new districts. This pattern can be termed "land requisition–land investment–land rent," and has become the main strategy for urban governments to earn land rent residuals.

In the context of fiscal decentralization, land rent residuals are often regarded as EBR funds, financial expenditure, or resources of urban infrastructure construction. The majority of these funds are used for

attracting investment, developing local industrialization and other related undertakings. On the one hand, urban construction in the pre-reform era largely lagged behind the needs of urban development, and thus there is an urgent need to build infrastructure; on the other hand, the budgetary funds are far from enough to support the needs of new developments. Accordingly, urban governments have to seek various ways to increase fiscal income. It is estimated that around 4,000 billion yuan of GDP was in the hands of local government in 2004, most of it originating from land.[33]

Land rent residuals stimulate various levels of government to develop new districts, especially new urban centres. A process of entitlement becomes very common, as selected urban areas begin to be entitled as either administrative new districts or major development districts. Since 2000, for examples, Pazhou New District (Guangzhou), Songjiang New City (Shanghai), Qianjiang New City (Hangzhou), and Haihe New District (Tianjin), all become such cases. Guangzhou municipality recently made plans for Pazhou, a suburban zone, to be the new centre of Guangzhou City. A total of 11.3 billion yuan was invested to build the Line Two Metro to link Pazhou with the central city, and more than 4 billion yuan was spent on building a new Chinese Export Commodities Fair complex in Pazhou. As a result, land prices in Pazhou soon rose markedly. In 2006, the average price of commodity housing in Pazhou reached 6,000–8,000 yuan per sq.m., and that of office space reached 12,000 yuan/m^2, both of which are much higher than in surrounding areas.[34]

With high-speed urbanization, new district construction is a preferred pattern characterized by both low cost and predictable high income. In fact, local governments have two choices: either develop new districts or renew the old central city. However, since the latter often involves high fiscal pressures such as relocation of residents, local governments prefer to choose the former as a new development strategy. With regard to local urban government, the total amount of land rent residuals within the inner city is fixed. Even when the land price of the inner city increases, the high cost of inner city redevelopment, especially the high cost of negotiating property rights exchange, is likely to scare off investors, including urban governments. Rather, urban governments strive to gain land rent residuals by building new districts. Urban governments therefore relieve the financial pressures of expenditure through constructing a positive cycle of financial benefits.

The seeking of land rent residuals can also be applied to explain the expansion of the administrative boundaries of Chinese cities. It has been a common phenomenon in the post-reform era for cities to encroach into neighbouring regions through readjustment of administrative boundaries.[35] For instance, Guangzhou turned two of its adjoining cities, Huadu and Panyu, into districts in 2000. The land under Guangzhou's control expanded from 1,443.6 km^2 to 3,718 km^2. Accordingly, it has been claimed that "Guangzhou has successfully solved the problem of limitations on development space."[36] When the original administrative region of a city completes urbanization, the urban government can obtain hardly any more low-cost land resources. However, urban governments can expand the land under their control by achieving a top-down modification of the administrative boundary, and thus maintain access to land rent residuals. Therefore, land rent residuals provide a new perspective for us to understand the development pattern of new district construction. New district development is a direct result of the expansion of property rights of state-owned land affected by local urban governments. However, it is important to highlight that the need for new district development is not necessarily consistent with the direction of economic and urban development, as it will bring about both financial problems and severe land loss for peasants.

Rural collective institutions-oriented urbanization

Since market reform, large-scale rural urbanization has appeared in rapid development regions. This can be understood as a process by which rural collective institutions are seeking land rent residuals. In the post-reform period, "urbanization from above" has been largely replaced by "urbanization from below." Local institutions, especially those in rural areas, have emerged as an important political and economic force. One direct result of the rural reform was the emergence of a large amount of surplus labour in rural areas. Therefore, a dramatic change in state policy was that rural industries and township and village enterprises (TVEs) were encouraged to develop in rural areas, to absorb the escalating numbers of surplus rural population. In Jiangsu province, the output of TVEs increased dramatically from 6.2 billion yuan in 1978 to 785.7 billion yuan in 1997, and its share in the total industrial output of the province increased from 18.5% to 62.6% in the same period.[37]

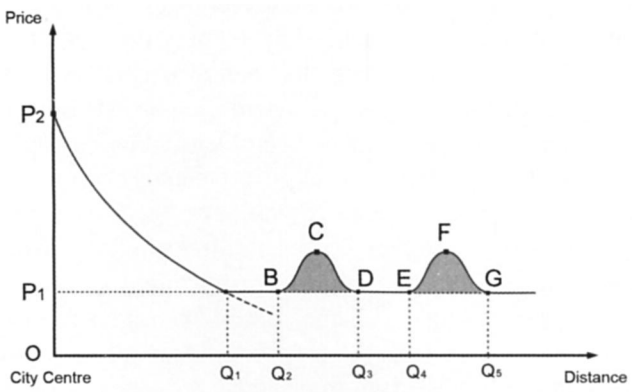
Accordingly, rural industrialization necessarily associates the development of towns and market towns with the functions of manufacturing and trade services. The development of TVEs has been recognized as a major driving force of invisible rural urbanization, an important stream of spontaneous urbanization. Small towns are developed to retain rural population who will "leave the land but not the hometown." [38]

Nearly a decade of fiscal decentralization has not only had a positive impact upon local economic development, but has also enhanced the ability of the central government to adjust the macro economy. However, financial decentralization also results in new problems. For example, fiscal rights have accumulated from low-level governments to provincial governments, but some other fundamental rights have been decentralized; however, county and countryside (*xiang*) still have to provide public services such as compulsory education, infrastructure, social security control, environmental protection, administrative management, and so on; moreover, they must strive to develop the local economy. County and countryside therefore very often face tremendous pressures of fiscal expenditure.[39] In this context, land rent residuals stimulate the agents of rural collectively-owned lands, i.e. rural collective institutions, to sustain development.

In the 1980s, Chinese governments at all levels encouraged both the development of town and village enterprises (TVEs) and the import of FDI, and this paved the way for rural collective institutions to obtain land rent residuals. In fact, rural urbanization can be understood as a process of sector restructuring in rural areas initiated by rural collective institutions. Under the land law regulations, local institutions began to develop TVEs and joint ventures on collective-owned lands, and in the process, rural collective institutions used collective-owned lands to seek land rent residuals. But residuals are not obtained through the exchange of land within a land market; rather, they are obtained through the income of non-agricultural sectors, land use charges, and other taxes. These funds become the main source for building infrastructure, developing the economy, education, etc. In this case, fiscal decentralization alleviates the financial pressure on lower-level governments, e.g. counties and higher-level governments that hold the rights of land use inspection and permissions, and thus they prefer to stimulate the lower-level governments of town and countryside to provide public services. As shown in Figure 3, for instance, Q_2Q_3 and Q_4Q_5 are two counties

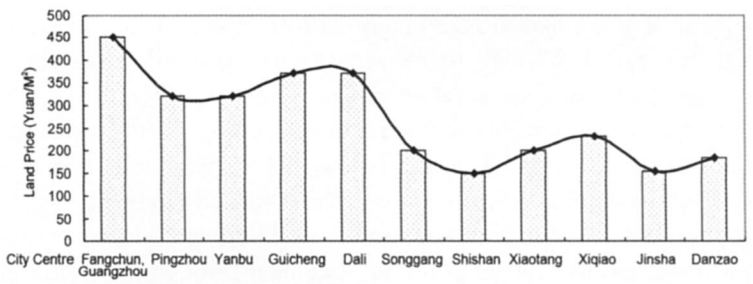
surrounding city centre O. The rural collective institutions of the two regions therefore try to gain land rent residuals BCD and EFG through developing non-agricultural secors.

Figure 3. Land Rent Residual and Rural Urbanization



Source: Compiled by the authors

Figure 4. The Industry Standard Land Price of Nanhai



Source: Compiled by the authors

The Nanhai District of Foshan City is a good example.[40] Nanhai is a typical newly urbanized area featuring well-developed TVEs and FDI-related sectors. In 1978, the total population of Nanhai was 427,000, most of whom were household registration (*hukou*) holders.[41] After some two decades of development, the villages and towns in Nanhai had established an economic development mode led by non-farming industries. The total population of Nanhai had grown to 1,560,900, and the

number of *hukou* holders had increased to 619,000. Meanwhile, the proportion of the population working in the agricultural sector fell from 66% in 1978 to only 9.5% in 2001. In the process, Nanhai became an accumulation region for architectural materials, the pottery industry, electronic facilities, the textile industry, and so on. Most of these enterprises and factories were constructed in towns or rural areas. The accumulation of manufacturing industry and service sectors produces huge amounts of fiscal income for local governments. For example, Dali, a small town in Nanhai, had a fiscal income of 18,373 yuan in 2001, of which budgetary revenues accounted for 62%, and EBR made up 39%. However, 67% of the budgetary revenue was handed over to the central government and the city, while EBR remained with the village collectives. This thus stimulates local governments to seek EBR, especially the huge amounts of funds to be obtained from land and related fields. For instance, Dali obtains 52% of its EBR from land, including land usage payments, infrastructural construction fees, management fees,and so on. This is even more evident with regard to village fiscal income. For instance, Xiapo, a village of Dali, had a fiscal income of 626,000 yuan in 2001, of which land income was 558,700 yuan, i.e. over 89% of the total. Such kinds of income were mainly collected from renting land to enterprises and land use payments. In fact, the whole fiscal system of towns and villages in Chinese cities is built on the basis of land usage. In this way, the value of the land property rights of rural collective-owned land is being gradually realized. For instance, with regard to the standard industrial land price, the central area of Nanhai, Guicheng, has a higher value than that of surrounding areas, e.g. Dali, Pingzhou, and Yanbu Town, but lower than that of Fangcun, a suburban area between Guangzhou and Nanhai. The land prices of other towns in Nanhai are not too different, with a difference of no more than 50 yuan/m^2. As shown in Figure 4, the whole curve looks very similar to that of Figure 3.

Because rural collective-owned property rights cannot be exchanged in land markets, they are scattered across urban space. Meanwhile, as a result of financial decentralization, government competition is exacerbated. Given an abundant labour force and transportation, all collective institutions will have the same land rent residuals, as shown by curves BCD and EFG. In such a case, it is reasonable that rural urbanization produces a landscape of scattered small factories or enterprises.[42] Nevertheless, rural collective property rights are not full property rights, and thus collective land will have a lower price than state-owned property. In

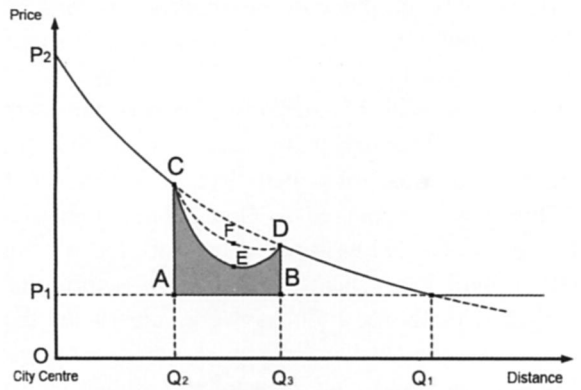
contrast, however, the low price suits the needs of labour-intensive sectors. Hence rural urbanization is not only an outcome of rural collective institutions' active involvement, but is also a result of market demand. It is a direct result of the rational choice of rural collective institutions in the context of the current land management system of urban China.

Chengzhongcun under the impact of both urban government and rural collective institutions

The dual property rights system of Chinese land ownership is the main reason underlying the development of *chengzhongcun* in Chinese cities.[43] We also argue that the *chengzhongcun* is a result of the maximization of land rent residuals by both urban governments and rural collective institutions.

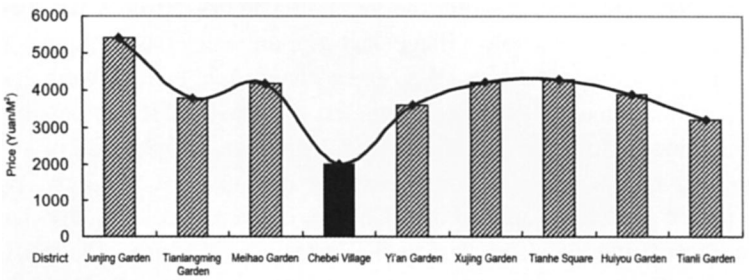
The development of *chengzhongcun* can be divided into two stages. First, during urban land expansion, because of limited financial expenditure, the urban government, with the intention of seeking land rent residuals, adopts a strategy to obtain low-cost rural land and avoid paying huge amounts of compensation to local peasants.[44] At the same time, in order to decrease the payments made to peasants, as shown in Figure 5, within the area Q_2Q_3, because of existing construction, the land rent of P_1 is higher than that of rural land P_1. During the process, the urban government obtains low-cost land rent residuals, while rural collective institutions obtain more rural collective construction land than before. By this mechanism, rural collective institutions also obtain land rent residuals. Because collective land property rights are limit property rights, the income of such property rights is not fixed, and the building quality is relatively low. Accordingly, collective-owned land rent is lower than that of surrounding urban land. As shown in Figure 5, a dip CED appears as rural collective institutions obtain land rent residuals, i.e. region ACEDB. At this stage, both the urban government and rural collective institutions are stimulated to seek land rent residuals, and they both obtain profits. *Chengzhongcun* do not initiate severe problems at this stage.

Figure 5. Land Rent Residuals and *Chengzhongcun*



Source: Compiled by the authors

Figure 6. A Comparison of Housing Prices in Chebei Village and its Surrounding Parcels



Source: Compiled by the authors

The second stage is where problems appear. After urbanization, the value of state-owned land increases, and at the same time this land impacts on neighbouring rural land. As a result, non-agricultural sectors develop on rural collective-owned lands, e.g. rental housing, factories, commercial streets, and so on, and these raise the value of land rent residuals to the level of ACFDB. As the supporting conditions of urban transportation and infrastructure become optimized, the level of land rent in *chengzhongcun* is greatly increased. Nevertheless, the price is unable to reach the level of urban land, e.g. CD. Because of the low value of property rights in *chengzhongcun*, these areas attract large numbers of labour-intensive sectors and poor tenants, and thus build up different

landscapes from other areas, in terms of societal, economic, and human landscapes. Meanwhile, because of the absence of urban management within these areas, social problems such as robbery and prostitution become rampant in *chengzhongcun*.

Chebei Village is a typical case. Located in the east of Guangzhou city, the land of Chebei Village has gradually been expropriated by the urban government. In fact, because of urban sprawl, a total of 139 *chengzhongcun* like Chebei have appeared in Guangzhou, with a total area of 80.6 km^2. Land loss in Chebei has been experienced as a gradual process. In 1956–1980, around 1 km^2 land of Chabei was expropriated, as SOEs such as Guangzhou Gashouse Industry were constructed there. In 1980–1989, 51 ha of Chebei Village's land were expropriated, concentrated in the south, north, and east areas of the village.[45] In the 1990s, the rate of land loss increased as urban construction accelerated. In the first half of the 1990s, around 109 ha of its land were expropriated; between 1995 and 2000, a total of 47 ha of land were expropriated. Consequently, since almost all the land in Chebei Village has been expropriated, and the whole village has gradually been surrounded by urban built-up areas, Chebei has become a *chengzhongcun*. Nevertheless, there is still around 8% of rural land left to peasants for maintaining their livelihood. Both the usage rights and the ownership rights of such land belong to the rural collective and the peasants. Accordingly, two new types of land have appeared in Chebei, collective construction land and peasant residential land. Using the latter as a resource, the households of Chebei Village rented housing to outsiders, especially the rising number of rural migrants; using the former, the development company which emerged from the former village committee has built commercial markets, developing industries and other sectors. From these the village collective earns around 35,000,000 yuan per year. Although the city government decreed that one household could only have one residential basement, peasants frequently have two or three pieces of land. There are around 60.22 ha of residential land in Chebei, with an average of 61.81 m^2 per person, of which 17.16 ha were built before the requisition. The city government also rules that houses in a *chengzhongcun* may have no more than three floors, but most peasants build their houses with more than five floors. A direct result of random construction is environmental deterioration. For example, the architectural density of Chebei has reached 40%. Since Chebei Village is located in a region of industrial expansion, a great number of migrant workers live here. The

rental income of one peasant house is generally around 3,000–5,000 yuan. Nevertheless, as shown in Figure 6, compared with the average housing price of neighbouring urban commodity housing, rents in Chebei are still far lower.

Such phenomena are appearing across the PRD. For instance, Shenzhen, a city re-born as one of China's Special Economic Zone (SEZ), is also witnessing rising numbers of *chengzhongcun*. After 1978, Shenzhen entered the fast track of urbanization. In 1989, the Shenzhen government promulgated its "Regulations and laws on land acquisition in Shenzhen," which it permitted each village to have one piece of land on which to develop commercial, residential or other sectors. After 1992, *chengzhongcun* began to appear in Futian district, the central area of Shenzhen city, and by the mid-1990s, 15 *chengzhongcun* had emerged there, taking up 5% of Futian's land. In 2003, it was reported that *chengzhongcun* in Futian had a total of 163,000 m^2 of collectively-owned property, with a total capital of 201,240,000 yuan. In addition, taking rent and property management charges together, the amount of the collectively-owned property can reach 142.9 million yuan, accounting for around 80.22% of the total income of the collective institution of *chengzhongcun*.[46]

The existence of land rent residuals and collective property rights also makes the redevelopment of urban villages difficult. First, as shown in Figure 5, since collective institutions try to maximize land rent residuals, if the lands are expropriated to be state owned, the government needs to pay a cost of ACFDE, and can then obtain land rent residual CFD. If CFD is much smaller than ACFDE, the urban government will develop new districts rather than redevelop villages. Redevelopment is not attractive, even for real estate developers, as the profit is limited. Second, as collective property rights are characterized by high costs of negotiation and maintenance, urban governments will not only have to pay the cost of ACFDE, they will also need to pay high negotiation costs to peasants. Accordingly, it is difficult to redevelop urban villages.

Conclusion

After market reform, the traditional urban-rural division was destroyed; however, the dual structure of urban and rural property rights has remained. This dualistic system has resulted in the appearance of land rent residuals. Under the system of financial decentralization as well as its stimulation upon the local regimes, land rent residuals provide

incentives for new district construction, top-down urbanization, and the construction on rural land owned by rural collective institutions. A new pattern of bottom-up urbanization is thus appearing as local institutions actively seek land rent residuals. Accordingly, new districts, rural construction and *chengzhongcun* have become the new symbols of expanding Chinese cities.

On the one hand, the seeking of land rent residuals accelerates urbanization; on the other hand, it also initiates new problems, such as inefficient urbanization. The dispersed spatial pattern of rural urbanization has resulted in the loss of farmland, environmental pollution,[47] and non-economic land use. As a result, in 2004, a total of 4,735 proposed new development zones were cancelled, accounting for around 70.2% of the total number of development zones in urban China. Around 24,100 km² of land were deleted from the list of planned development zones, accounting for 64.4% of the total area of planned development zones in China. In addition, although the *chengzhongcun* economy is able to sustain the present life of peasants, *chengzhongcun* also have a negative impact on the quality of urbanization, resulting in, among other things, poor living conditions for the overly densely-packed community.

To accelerate urbanization in China, the Chinese government not only needs to solve the problems that accompany land rent residuals; it is also necessary to retain incentives for the agents of urban development. Institutional innovation is crucial for the future development of Chinese cities. For instance, the government can charge property taxes to maintain a stable income from urban development, and through collecting profits from the rise in land values, urban governments can decrease their overdependence on land rent residuals. In addition, through granting collective-owned land rights, and making them exchangeable in the land market, urban governments could gradually transform the dualistic structure of urban and rural property rights, and thus allow peasants to fully share the profits from property under urbanization. In the future, the cost of urbanization will continue to increase as land compensation gradually becomes marketized, while a rural social protection system develops. In this case, developing industries with high value attached to them, together with the enhanced formation of a compacted urban structure, will be beneficial for preventing urban sprawl and improving land use efficiency.

Notes

1. For details, see National Bureau of Statistics of China, *Zhongguo tongji nianjian* (China Statistical Yearbook) (Beijing: China Statistics Press, 2005).
2. For detailed discussion on this, see literature on transitional Chinese cities, e.g. Anthony Gar-On Yeh and Fulong Wu, "Internal structure of Chinese cities in the midst of economic reform," *Urban Geography*, Vol. 16, No. 6 (1995): 521–554; Fulong Wu, "The global and local dimensions of place-making: remaking Shanghai as a world city," *Urban Studies*, Vol. 37, No. 8 (2000): 1359–1377; Logan, J. R. (ed.), *The New Chinese City: Globalization and Market Reform* (Oxford: Blackwell, 2001); Weiping Wu, "Migrant housing in urban China: Choices and constraints," *Urban Affairs Review*, Vol. 38, No. 1 (2002): 90–119; Jieming Zhu, "Urban development under ambiguous property rights: A case of China's transition economy," *International Journal of Urban and Regional Research*, Vol. 26, No. 1 (2002): 41–57; Laurence J. C. Ma and Fulong Wu, *Restructuring the Chinese City: Changing Society, Economy and Space* (London and New York: Routledge, 2005).
3. Between 1985 and 2000, the average rate of increase in the construction of built-up areas reached 850 km^2 per year. For a systematic and sophisticated analysis, see F. Frederic Deng and Youqin Huang, "Uneven land reform and urban sprawl in China: The case of Beijing," *Progress in Planning*, Vol. 61, No. 3 (2004): 211–236.
4. For detailed discussion, see Yehua Dennis Wei and Chikin Leung, "Development zones, foreign investment, and global city formation in Shanghai," *Growth and Change*, Vol. 36, No. 1 (2005): 16–40.
5. Ma and Wu (Note 2).
6. For detailed information, see Jianfa Shen, Zhiqiang Feng and Kwan-Yiu Wong, "Dual-track urbanization in a transitional economy: The case of Pearl River Delta in South China," *Habitat International*, Vol. 30, No. 3 (2006): 690–705.
7. A number of detailed discussions of various patterns of urbanization in China can be found. See Laurence J. C. Ma and Gonghao Cui, "Economic transition at the local level: Diverse forms of town development in China," *Eurasian Geography and Economics*, Vol. 43, No. 2 (2002): 79–103.
8. A *desakota* region is a complex entity. It encompasses both the city itself, with typical urban land use, and associated compact and densely settled sprawling areas. McGee describes *desakota* regions as agricultural areas that have undergone an intense mix of settlement and economic activity, comprising agriculture, industry, housing development, and other land use. That is, the countryside is urbanized without the hinterland population

necessarily moving into the city. It is argued that *desakota* is the result of sustainable social systems on the fringes of Asian mega-cities. See T. G. McGee,"Five decades of urbanization in Southeast Asia: A personal encounter," in *Urban Development in Asia: Retrospect and Prospect*, ed. by Y. M. Yeung (Hong Kong: The Chinese University Press, 1998), 55–94.

9. See Ma and Wu (Note 2).
10. In fact, *chengzhongcun* have already attracted the attention of researchers from various fields, including sociology, anthropology, geography, management, planning and architecture. Existing research provides distinctive perspectives to decipher the underlying mechanisms of this new urban landscape, such as housing. For details, see L. Zhang, Simon X. B. Zhao and J. P. Tian, "Self-help in housing and Chengzhongcun in China's urbanization," *International Journal of Urban and Regional Research*, Vol. 27, No. 4 (2003): 912–937.
11. For instance, with a case study of Beijing and Shanghai, Wu, W. found that the migrant housing pattern is linked to institutional factors such as the existing household registration system, and the transitioning state of the urban housing market. He argues that restricted access to urban housing results in their poor housing conditions. See Weiping Wu, "Temporary migrants in Shanghai: Housing and settlement patterns," in *The New Chinese City: Globalization and Market Reform*, 212–226.
12. Laurence J. C. Ma and Biao Xiang, "Native place, migration and the emergence of peasant enclaves in Beijing," *The China Quarterly*, No. 155 (September, 1998): 546–581.
13. Jie Fan and Wolfgang Taubmann, "Migrant enclaves in Chinese large cities," in *The New Chinese City: Globalization and Market Reform.*
14. Chao-lin Gu and Haiyong Liu, "Social polarization and segregation in Beijing," in *The New Chinese City: Globalization and Market Reform.*
15. Yixing Zhou and Laurence J. C. Ma, "China's urbanization levels: Reconstructing a baseline from the fifth population census," *China Quarterly* No. 173 (2003): 176–196.
16. FDI in China has developed through several stages. In the first stage, FDI was mainly from Taiwan and Hong Kong, and accumulated in the PRD in the early 1980s. In the 1990s, developed countries such as USA and Japan began to invest heavily in the field of light industry across coastal regions of China, i.e. the PRD and YRD. Recently, FDI-related heavy industries have also begun to appear widely in such areas. For a detailed discussion, see Victor F. S. Sit and Chun Yang, "Foreign-investment-induced exo-urbanisation in the Pearl River Delta, China," *Urban Studies*, Vol. 34, No. 4 (1997): 647–677.
17. L. Li, "Guangzhoushi chengzhongcun xingcheng ji gaizaojizhi yanjiu" (The construction and reconstruction of chengzhongcun in Guangzhou), Ph.D.

thesis, Sun Yat-sen University, Guangzhou, China, 2001.

18. For detailed discussion on this, see Carolyn Cartier, "City-Space: Scale relations and China's spatial administrative hierarchy," in *Restructuring the Chinese City: Changing Society, Economy and Space*, ed. by Laurence J. C. Ma and Fulong Wu (London and New York: Routledge, 2005).
19. Hehui Jin, Yingyi Qian and Barry R. Weingast, "Regional decentralization and fiscal incentives: Federalism, Chinese style," *Journal of Public Economics*, Vol. 89 (2005): 1719–1742.
20. See J. Zhu, "Urban development under ambiguous property rights: A case of China's transition economy," *International Journal of Urban and Regional Research*, Vol. 26, No. 1 (2002): 41–57; Samuel. P. S. Ho and George C. S. Lin, "Emerging land markets in rural and urban China: Policies and practices," *China Quarterly*, No. 175 (2003): 681–707; Ling Hin Li, "The political economy of the privatisation of the land market in Shanghai," *Urban Studies*, Vol. 34, No. 2 (1997): 321–335; Fulong Wu and Anthony Gar-On Yeh, "Changing spatial distribution and determinants of land development in China's transition to a market economy: The case of Guangzhou," *Urban Studies*, Vol. 34 (1997): 1851–1879; Fulong Wu, "The 'game' of landed-property production and capital circulation in China's transitional economy, with reference to Shanghai," *Environment and Planning A*, Vol. 31, No. 10 (1999): 1757–1771; Qingshu Xie, A. R. Ghanbari Parsa and Barry Redding, "The emergence of the urban land market in China: Evolution, structure, constraints and perspectives," *Urban Studies*, Vol. 39, No. 8 (2002): 1375–1398; Anthony Gar-On Yeh and Fulong Wu, "The new land development process and urban development in Chinese cities," *International Journal of Urban and Regional Research*, Vol. 20, No. 2 (1996): 330–353; T. W. Zhang, "Land market forces and government's role in sprawl—The case of China," *Cities*, Vol. 17, No. 2 (2000): 123–135.
21. Xiaolin Pei, "Jititudizhi: Zhongguo xiangcun gongye fazhan he jianjin zhuangui de genyuan" (The institutional root of China's rural industry and gradual reform), *Economic Research Journal*, Vol. 6 (1999), 45–51; X. Kong, *Zhongguo jiti qiye zhidu chuangxin* (China Collective Enterprise Innovation) (Beijing: China Fangzheng Press, 1996), 45–51.
22. Yeh and Wu (Note 20).
23. For details, see Liu Xiaoling, *Zhidu bianqian zhong de chengxiang tudi shichang fazhan* (A Study of Urban and Rural Land Market Development under Institutional Transformation) (Guangzhou: Zhongshan University Press, 2005).
24. See George C. S. Lin and Samuel P. S. Ho, "The State, Land System, and Land Development Processes in Contemporary China," *Annals of the Association of American Geographers*, Vol. 95, No. 2 (2005): 411–436;

"China Land Law," (baishanshi guotu ziyuanju [Baishan Municipal Bureau of Lang and Resources], 1999).

25. Ibid.
26. Ibid.
27. Arthur O'Sullivan, *Urban Economics*, 4th Ed. (New York: McGraw-Hill, 2000).
28. See Cartier (Note 18).
29. See Hehui Jin, Yingyi Qian and Barry R. Weingast, "Regional decentralization and fiscal incentives: Federalism, Chinese style," *Journal of Public Economics*, Vol. 89 (2005): 1719–1742.
30. *zhuanxiang butie.*
31. *peitao buokuan.*
32. Note 18.
33. Ping Xinqiao, "Geji zhengfu shouwo siwanyi" (4,000 billion Yuan in the hands of local governments), *Zhonghua gongshang shibao* (China Industrial-Commercial Times), 1 November, 2005.
34. Yuxia Chen, "Jiehuizhan Pazhou loujia zaici feisheng" (Estate prices rise around the Pazhou Exhibition Center), *Yangcheng Evening News*, 16 April, 2005, www2.ycwb.com/gb/content/2005-04/16/content_886225.htm. Accessed on 10 June, 2006.
35. Against this backdrop, regional governance is undergoing challenge and change, whilst the intervention of local governments in the economy is being strengthened in new ways. The conflict between administrative divisions is a reflection of the incompatible link between administrative and economic systems in the post-reform era. For details, see Jingxiang Zhang and Fulong Wu, "China's changing economic governance: Administrative annexation and the reorganization of local governments in the Yangtze River Delta," *Regional Studies*, Vol. 40, No. 1 (2006): 3–21.
36. For detailed information, see Lin Shusen, Dai, F, Pan An, *Guihua Guangzhou* (Planning Guangzhou) (Beijing: China Architectural Industrial Press, 2006), 103.
37. See Jianfa Shen, Kwan-yiu Wong and Zhiqiang Feng. "State-sponsored and spontaneous urbanization in the Pearl River Delta of South China, 1980–1998," *Urban Geography*, Vol. 23, No. 7 (2002): 674–694.
38. See Laurence J. C. Ma and Chusheng Lin. "Development of Towns in China: A Case Study of Guangdong Province" *Population and Development Review*, Vol. 19, No. 3 (1993): 583–606.
39. For details, see Jia Kang and Bai Jingming, "Xianxiang caizheng jiekun yu caizheng tizhi chuangxin" (Overcoming difficulties in public finance at county and township level and innovation in the fiscal system), *Economic Research Journal*, Vol. 2 (2002): 3–9.

40. Foshanshi guotu ziyuanju Nanhai fenju 2003 niandu jizhun dijiabiao (Standard Land Price of Nanhai in 2003 issued by the Land and Resources Bureau of Foshan City).
41. Jiang Shengsan and Han Jun, *Tudi zibenhua yu nongcun gongyehua: Nanhai fazhan moshi yu tudi chuangxin* (Land capitalization and rural industrialization—The Development Pattern and Institutional Innovation of Nanhai City) (Taiyuan: Shanxi Economic Press, 2005)
42. See Pei (Note 21).
43. For a detailed discussion of urban villages in urban China, see Liu, Y., He, S., Wu, F., Webster, C., "Urban villages under China's rapid urbanization: Unregulated assets and transitional neighbourhoods", *Habitat International*, Vol. 34 (2010): 135–144.
44. See Lihua Wei and Xiaopei Yan, "Chengzhongcun cunxu qiantixia de zhuaixing: Jianlun chengzhongcun gaizao de kexingxing moshi" ("Chengzhongcun": a transformation with the procondition of sustaining traditions), *City Planning Review*, Vol. 7 (2005): 10–13.
45. Li Xun, *Guangzhoushi Chepicun gainian guihua* (Conceptual Plan of Chepi Village), internal report, Sun Yat-sen University, 2005.
46. See Shenzhen chengzhongcun gaizao bangongshi (Shenzhen Urban Village Redevelopment Office), *Shenzhenshi chengzhongcun (jiucun) gaizao zongti guihua gangyao* (The framework for the comprenhensive planning of urban village redevelopment in Shenzhen City), 2007.
47. For example, see Anthony Gar-On Yeh and Li Xia, "Zhujiangsanjiaozhou jingji fazhan, chengshi kuozhan yu nongtian liushi: yi Dongguan weili" (Economic development, urban sprawl and agricultural land loss in the Pearl River Delta: Dongguan as an example), *Economic Geography*, Vol. 19, No. 1 (1999): 67–71; See Xun Li and Yun Li, "Nongcun jiti suoyouzhi yu fensanshi nongcun chengshihua kongjian: Yi Zhujiang sanjiaozhou wei li" (Rural collective ownership and dispersed rural urbanization space: A case study of the Pearl River Delta), *City Planning Review*, Vol. 7 (2005): 39–41.