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## Land Markets and Regional Government Rent Seeking Behavior\*

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Since the 1990s, the Chinese economy has had excess liquidity in part because of the continued low fixed exchange rate versus the US dollar, and has frequently experienced sharp increases in asset prices referred to as “bubbles.” Regarding real estate market trends in particular, while some traders have amassed great wealth through real estate transactions, the skyrocketing housing costs in major cities are said to be drawing dissatisfaction among the masses. As for the expropriation of land by the government in agricultural villages, there has been one protest after another by farmers whose land has been taken by force with only minimal compensation, and these have drawn wide-ranging concern inside and outside of China through active reporting by new commercial media based in large cities such as *Caijing Magazine* and *Nanfang Zhoumo (Southern Weekly)*.<sup>1</sup>

When this issue is covered by the media, the one-sided exploitation of residents and farmers who are forced off their lands by regional governments together with developers is often portrayed as problematic.<sup>2</sup> As frequently noted, the background to this issue includes rent seeking by regional governments via intervention in land markets, as well as the tug of war over this between the central government and regional governments. There are two points that require attention here.

First, while reference is made to “government intervention in land markets” as a single concept, the situation differs greatly depending on the region, the type of land use, and how the land was expropriated and turned over to the government. Second, such rent seeking by regional governments and the tug of war between regional governments and the central government are not by any means new phenomena, but rather they have been noted ever since the early stages of China’s reform and opening up policy.

Consequently, when discussing the problems with regional government intervention in land markets in recent years, it is necessary to arrange the various facts regarding such land markets and then to clarify the points in which this differs from problems that have emerged between the central and regional governments in the past as well as what significance this has when considering the future economic development of China.

With this understanding of the issues, this article focuses on three points: (1) the relationship between the land expropriation problem and the structural problems facing regional government

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finances, (2) the real estate price increase mechanism and the effectiveness of government policies to restrain prices, and (3) changes in the pattern of economic development led by regional governments seen in this land expropriation problem.

## **I. Reform of the Land and Real Estate System and Price Restraint Policies**

First, we review the establishment of the main laws concerning land and real estate transactions during the reform and opening up period, as well as the historical changes in government policies to restrict real estate prices.<sup>3</sup>

It is not that long ago that China, which long firmly maintained a public land ownership system under its planned economy, began to trade land and develop related laws. First the Land Administration Law of the People's Republic of China (hereafter "Land Administration Law") was enacted in 1986 arranging a legal system for land management assuming a public ownership system.

In the next year 1987, in Shenzhen City the rights to use state land in a city were transferred on a paid basis for the first time. In other words, the urban development method whereby the (regional) government sells its land use rights to a private developer and uses the funds for investment in infrastructure and urban construction was initiated. It is said to be modeled after the method of urban development by British Hong Kong during the colonial era (Onodera 1997). Additionally, as explained below, the legal grounds for such a system were provided by the Constitution and the Land Administration Law, both of which were revised in 1998.<sup>4</sup>

With these systems preparations as a background, the first real estate development boom (new land enclosure movement) was sparked by Deng Xiaoping's 1992 South China Tour Speech. The urban development method using paid transfer of land use rights spread, centered on cities in coastal regions. For example, the percentage of real estate investment in national fixed capital investment suddenly rose from around 6.1percent in 1991 to 9.3percent in 1992 and to 15.6percent in 1993. However, this real estate boom of the early 1990s eased with a series of "bubble smashing" policies and tight monetary policies by Prime Minister Zhu Rongji and with depressed investment from the effects of the 1997 Asian financial crisis.

Yet even during that period, systematic preparations for land and real estate transactions were steadily advanced. Among these, important advances included the reforms toward home ownership and commercialization of urban housing, which had previously been allocated by units centered on state enterprises. First, the 1994 State Council Decision on the Deepening of Urban Housing System Reform and the 1998 Notification regarding the Further Deepening of Urban Housing System Reform and Acceleration of Housing Construction made clear the policy of advancing the commercialization of urban housing, abolishing the system of providing housing directly, and promoting housing construction. A series of movements toward the commercialization of housing stimulated housing demand among urban residents and became a major cause of the second real estate boom from 2002.

Regarding land transactions as well, the preparation of systems for the government to expropriate agricultural land and other collectively owned land for smooth development was advanced. First, national land investment companies were established in Shenzhen and Shanghai in 1996, and these organs (land banking centers) introduced a unified "land banking system" of expropriating land for development and managing preparation of plots and infrastructure and other aspects under consignment from regional governments, and this gradually spread nationwide.<sup>5</sup>

Also the new Land Administration Law revised in 1998 (put into force in 1999) strengthened the control over land development by higher government authorities (Shengping Gao and Shouying Liu

2007). In developing collectively owned land in agricultural villages as plots for construction, the land first had to be expropriated by the state and “nationalized,” and the rights to conduct examinations and give authorizations were limited to the State Council and the provincial governments. Also the terms for the rights to use state land were set specifically by purpose of land use with 70 years for residential uses, 50 years for industrial uses, 50 years for educational, science and technology, culture and hygiene uses, and 40 years for commercial and entertainment uses. The standards for giving compensation to farmers when expropriating agricultural land were prescribed at payment of 6–10 times the average harvests over the three years prior to the expropriation (Article 47), establishing systematic preparations for the paid use of land use rights.

Then the Circular of the State Council on Strengthening the Asset Management of State-Owned Lands issued in 2001 called for openness, fairness, and justice in trading of land use rights based on the above land banking system. The consultation method had accounted for the overwhelming share of paid transfers of state land up until that time, and the prices and process were criticized for lacking transparency, but thereafter the movement toward bidding systems and other market-based transfers of land use rights advanced full scale.<sup>6</sup>

The series of movements toward strengthening the management of land development centered on the land banking system in this way was fundamentally for the purposes of preventing unlawful diversion of the assets of state enterprises that go bankrupt or are subject to restructuring, and addressing concerns about the decrease of arable land through protection from rampant development (“The Decipherment of Land,” *Caijing Magazine*, no. 153). Nevertheless, at the same time this unification of the authority for land development through expropriation and authorization by regional governments also had the following results that were not necessarily intended by the central government.

First, because the land sales market from the government to the private sector (the primary land market) was unified through authorization from the central and provincial governments, a supply shortage emerged from a type of monopoly, inviting land price increases. Second, the land paid use system which had previously primarily been applied to state land in urban areas began to be applied full scale to agricultural land and other collectively owned land.<sup>7</sup> Third, while the percentage of land stockpiled in the regions that is transferred at market prices increased, because the compensation paid when agricultural and other lands were expropriated was kept low, the income of regional governments—the differential between the compensation paid and the transfer price—greatly increased.

With such a background, the second real estate development boom advanced full pace from around 2002. Unlike the first boom, the method explained above whereby regional governments expropriated collectively owned agricultural and other lands, nationalized the lands, and then transferred them for profit now became the mainstream. For that reason, the presence of “landless farmers” who lost their land without receiving sufficient compensation came to draw attention as a social problem. Amid such conditions, the Rural Land Contracting Law enforced from March 2003 stipulates that the land “contracting rights” of individual farmers are a type of usufruct over land, and opens the path to protecting the land property rights of farmers. Specifically, it recognizes the inheritance, sale and purchase of land use rights based on the farmer’s volition, and stipulates that government or other parties cannot recall the usage rights to agricultural land within the contracting period (30 years for arable land, 30–50 years for pasture, and 30–70 years for forests).<sup>8</sup>

Then in October 2007 the Property Law came into force which, with socialist public ownership as the main system, confirmed the principle of joint economic development through diverse ownership systems and stipulated the equal protection of ownership rights not only of the state and bodies, but of

individuals as well. In relation with this article, it is noteworthy that this law confirmed that land use rights and other usufructs are secured through a registration system, and also included provisions regarding what happens after contract periods expire and compensation for residents when land is expropriated by the government.

Moreover, at the Third Plenary Session of the 17th CPC Central Committee held in November 2008, the Communist Party of China adopted the “Decision on Some Important Questions in Promoting the Development of Rural Reform” which incorporated recognition of the purchase and sale of agricultural land use rights under certain conditions including free will and compensation, joint ownership of agricultural land, and no change in the land use. In response to this decision, Rural Land Transfer Trading Centers, which are systematic frameworks for the market trading of agricultural land, were established in Sichuan, Zhejiang, and other provinces.

As shown above, in addition to the development of industrial zones attracting foreign enterprises, the real estate demand for development of commercial housing increased from the latter 1990s, laws arranged and there was active real estate financing to support this. Due to this series of systematic preparations and the excess influx of domestic and foreign capital against the background of insufficient projects for domestic investment, the prices of land and real estate as stock consistently rose faster than the prices of goods, especially in major cities (Figure 7-1). In addition to this sharp increase in real estate prices, as noted at the beginning, a variety of social problems have emerged in recent years including problems with forced evictions associated with land development, pressure on the lifestyles of city residents from rent increases, and dissatisfaction with real estate developers and regional government officials who are taking excessive profits.

Figure 7-1. Real Estate Related Indices Trends (Nationwide)



Sources: Issues of *China Monthly Economic Indicators*, National Bureau of Statistics of China; National Bureau of Statistics of China website (<http://www.stats.gov.cn/>).

Note: Figures in the graph are all with the previous year’s price at 100.

The central government has responded mostly by preparing laws and issuing individual notifications so that regional governments and developers do not expropriate land illegally by violence, and so that sufficient compensation is given to the farmers and other original land usufructuaries.

On the demand side, when the real estate market showed signs of heating up, the central government adopted restrictive measures centered on direct regulation of real estate financing by financial

organs.<sup>9</sup> Harsh tightening measures were implemented against realtors and markets including total volume limits on development items that are not consistent with national industrial policy objectives, especially during the heated real estate investment in and around Shanghai from 2003 through 2004 (see, for example, “Missions Dilemmatic,” *Caijing Magazine*, no. 179). In June 2004, for example, the government ordered cancellation of a project where the land was obtained by illegal means for development by Jiangsu Tieben Iron and Steel Company Ltd. in Changzhou City, Jiangsu Province, and those involved were punished (Tanaka 2007, 261). Also the October 2004 “State Council Decision on Deepening Reform and Tightening Land Management” stipulated total volume regulations on land for construction, strict management of the conversion of agricultural land, and sufficient living expenses compensation to farmers on the occasion of land development.<sup>10</sup> During the real estate price jumps in 2007 and 2009 as well, the government repeatedly directly intervened in the real estate market by increasing down payments for purchasing condominiums and regulating real estate loans.

However, while this series of policies did have some temporary tightening effect, it is not believed to have been sufficiently effective in terms of its purpose of restricting sharp price increases in the real estate market. In considering the reasons why, it is necessary to pay attention to the special relation between China’s land market and its regional governments as seen in the following sections.

**II. Land and Real Estate Markets and Regional Government Fiscal Revenues**

During the reform and opening period, regional governments which suffered a chronic shortage of fiscal sources repeatedly engaged in the behavior of actively intervening in factor markets and using the resulting “rent” as a non-regular fiscal source. We now discuss how regional governments secure fiscal sources through intervention in the land market in particular, in detail.

First, regarding the tax revenues related to land in regional government budgets, we simply review what items are subject to taxation, the basis for that, the tax rates, and the percentages retained by regional governments.

As shown in Table 7-1, the first distinctive characteristic of the system for taxing real estate in China is that there are different systems for taxing land and for taxing buildings. For example, the real estate tax and the city real estate tax on foreign-affiliated enterprises are taxes charged only on buildings, not land. In contrast, the city land use tax is systematized as a type of use expense paid to the government when enterprises that are not part of the publicly owned sector use land, so this is also significant for adjusting differential rents in accordance with the land profitability.<sup>11</sup>

Table 7-1. Real Estate Related Tax Revenues

	Type of tax	Tax basis	Tax rate	Regional retention rate
Taxes on real estate occupiers	Real estate tax	Real estate cost	1.20%	100%
	City real estate tax	Real estate cost	1.20%	100%
	Arable land occupancy tax	Arable land area	1–10 yuan/m <sup>2</sup>	100%
	City land use tax	Land area	1.5–30 yuan/m <sup>2</sup>	100%
Tax on real estate sales and purchase and transfer profits	Contract tax	Contract amount	2% or 4%	100%
	Business tax	Sales revenue	5%	100%
	Stamp tax	Contract amount	0.03–0.05%	50%
	City maintenance construction tax	Amount of taxes paid	5–7%	100%
	Enterprise income tax	Enterprise income	33%	40%
	Individual income tax	Personal income	20%	40%
	Land value added tax	Value added	30–60%	100%

	Type of tax	Tax basis	Tax rate	Regional retention rate
Tax on real estate rental income	Real estate tax	Rental income	12%	100%
	City real estate tax	Rental income	18%	100%
	Business tax	Rental income	5%	100%
	Enterprise income tax	Enterprise income	33%	40%
	Individual income tax	Personal income	20%	40%

Source: Prepared by the author from “The Start of Property Tax,” *Caijing Magazine*, no. 99; Zuo Liu (2006); and other materials.

Another institutional characteristic that should be noted is that while ownership rights over land in urban areas belong to the state, fundamentally the land in agricultural villages is collectively owned. Reflecting this, the tax structure adopts different systems for agricultural villages and cities in taxing both land and real estate, and there are charges such as the city maintenance construction tax that have the character of additional taxes charged on the amount of taxes paid, making the system increasingly complex. The following types of problems have been noted with this current land tax system (Hong Qin and Xiaowei Li 2007).

- The tax base is too small, and the properties subject to taxation are not clear. There are many tax exemption provisions: for example, real estate taxes are not charged if the property is not for business purposes, and public enterprises are not charged land use taxes.
- The rates of land value added tax and certain other taxes are too high, providing strong incentives for false reporting and tax evasion.
- There are large distortions in the tax rates: for example, the tax burden on land transactions is heavy while the tax burden on land holdings is light. For that reason, a lot of land is being held for speculative purposes and not being used.
- Rents, taxes and expense burdens are mixed together, and inconsistent.<sup>12</sup>

The scale of the tax revenues from these land transactions and land holdings, excluding those which contain revenues from other industries such as business taxes and income taxes, has certainly been expanding in recent years, but the ratio of these tax revenues in total regional government fiscal revenues has not changed significantly.

Nevertheless, regional governments also collect the following various types of expenses from developers and other parties in addition to the above tax revenues related to land transactions and land holdings (“The Decipherment of Land,” *Caijing Magazine*, no. 153).

1. Arable land reclamation expenses, land use rights transfer fees, land use fees for new construction and additions, management expenses, registration expenses, eviction expenses, and other revenues managed by the land department.
2. Land use expenses, land rental expenses, and other revenues managed by the fiscal department of the regional government.
3. Revenues from diverse expenses paid to the agriculture, real estate, water use, transportation, posts and telecommunications, culture, air defense, forestry, and other departments.

Among these, it is worth noting that the scale of land use rights transfer fees and other expenses

revenues managed by the Department of Land and Resources and other departments (hereafter “land use rights transfer revenues”) has been growing year by year, and that these are also revenues gained by regional governments selling their own use rights on the market using their de facto ownership rights over agricultural land, and can be interpreted as a type of rent gained by government market intervention.<sup>13</sup>

This type of paid land use system began from the above-mentioned introduction in Shenzhen City at the end of the 1980s. At the national level, this seems to have been stipulated by a series of legal preparations including the July 1988 State Council Notification regarding the Authority to Ratify the Transfer of State Land Use Rights, the revision of the Constitution that year which recognized the transfer and lease of land use rights, and revisions to the Land Administration Law. This system was advanced full scale centered on cities in the coastal region with the active solicitation of foreign capital following Deng Xiaoping’s 1992 South China Tour Speech with the purpose of promoting the development and management of land using foreign capital.<sup>14</sup> Also the Notification on Some Issues regarding the Development of the Real Estate Industry stipulated that collectively owned land in agricultural villages and elsewhere could be expropriated by the state, converted to state land, and then transferred (Onodera 1997, 31). Such paid transfer of collectively owned land advanced full scale in the latter half of the 1990s under the land banking system as mentioned above.

Initially, land use rights transfer revenues were split by the central and regional governments with a 4:6 division. Thereafter, the amount paid to the central government was reduced to 32percent, and with the 1992 “Provisional Regulation regarding the Collection and Management of Revenues from the Paid Transfer of State Land Use Rights,” it was sufficient for the regional government to pay only 5percent of the transfer revenues to the central government. Since 1994 when the tax sharing system was implemented, all the revenues have remained with the regions and this has become an important funds source for regional governments.

In the real estate boom since 2003, it had not been unusual for the transfer revenues received by regional governments in provinces in the coastal region to reach billions of yuan, and much of that has been spent on disorderly urban construction. Under such conditions, in 2004 the State Council demanded that 15percent of regional government transfer revenues be allocated to agricultural development (“The Redistribution of ‘Land Leasing Fees’,” *Caijing Magazine*, no. 155). Also, the Notification regarding the Standardization of the Management of Revenues and Expenses from the Transfer of State Land Use Rights promulgated by the Office of the State Council in December 2006 stipulated the range of land use rights transfer revenues, and demanded stronger management of collections.

Some of these transfer revenues are posted as “fund revenues” in fiscal revenues within the budget and ratified by the central government.<sup>15</sup> The scale of such revenues was 203.751 billion yuan in 2006, accounting for less than one-third of the total revenues (807.764 billion yuan), and there is variation by region. The remainder is believed to be retained by regional governments as “funds outside the system” not shown in statistics or as “a second budget” or “hidden reserves.”<sup>16</sup> Also, there are said to be many cases where regional governments expropriate land illegally in that process, including cases where the regulatory compensation is not paid to residents or residents are evicted by violent means.

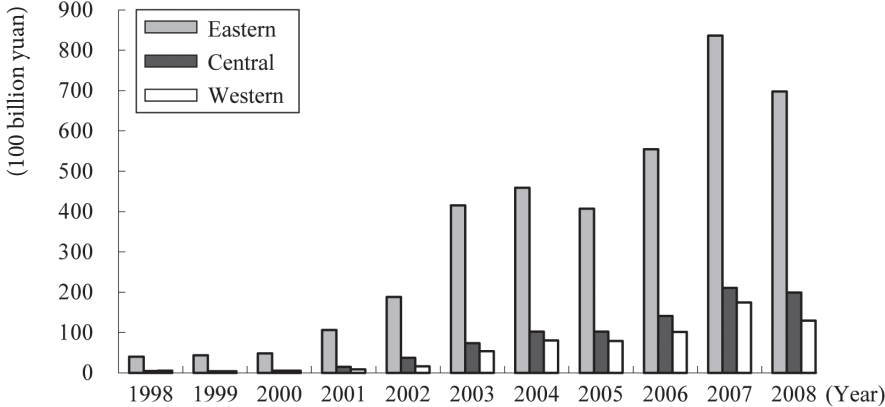
Figure 7-2 shows that land use rights transfer revenues suddenly increased from 2002, that is, from the time when the second land development boom began to heat up.<sup>17</sup> Also, there is a large difference in their growth between the eastern and the central and western areas, showing these revenues reflect the regional deviation in land development.

In general, such land use rights transfer revenues are allocated about 40percent to governments

above townships and villages and 40percent to village committees, with just 20percent or less given to the farmers themselves.<sup>18</sup> Consequently, the changes in transfer income shown in Figure 7-2 can be viewed as basically corresponding to changes in regional government revenues through land transactions.

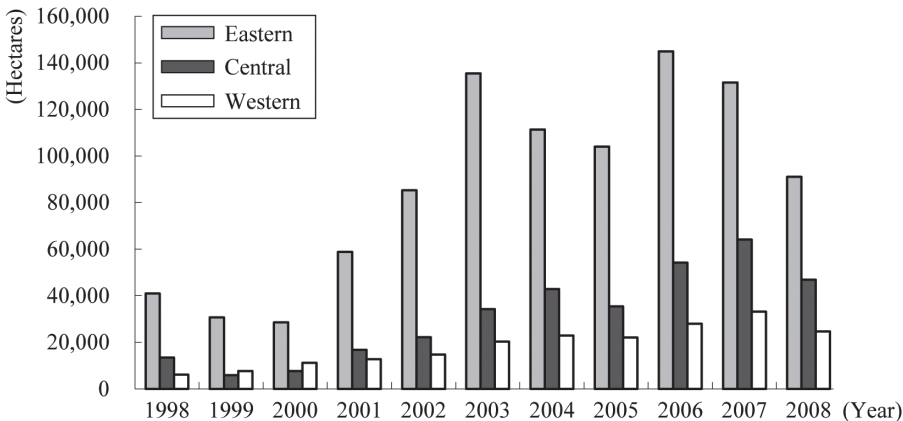
As seen in Figure 7-3, it is also worth noting that in 2004 and 2007 even though the area of state land transferred decreased from the prior years,<sup>19</sup> the paid transfer amounts shown in Figure 7-2, that is, the regional government revenues through land transactions, greatly increased. For example, as mentioned above, in 2004 the transferred land area decreased, and that was because the government tightened real estate development and financing in that year,<sup>20</sup> but because the decrease in the overall supply of land resulted in increased prices, the regional government revenues are thought to have conversely increased. The background to the occurrence of this type of phenomenon is believed to be China’s unique land market in which regional governments supply land on a monopoly basis to maximize their paid land transfer revenues, which are rent income. The next section considers this point in detail.

Figure 7-2. State Land Use Rights Transfer Revenues



Source: Ministry of Land and Resources, *China Land & Resources Almanac* from each year.  
 Note: Amounts show the totals of land use rights transfer fees, land development expenses, land preparation expenses, and other costs paid by land users to the state.

Figure 7-3. State Land Use Rights Transfer Area



Source: Same as Figure 7-2.

### III. Land Market Structure and Rent Seeking

Normally in economics, when considering real estate prices and land prices, first the land rent is determined by the rental market, and with that land rent as a given, the land price is then determined through



arbitration with other investment assets on the asset market.<sup>21</sup> However, as shown below, the conditions surrounding China's real estate market greatly differ from those assumed by such standard economic theory.

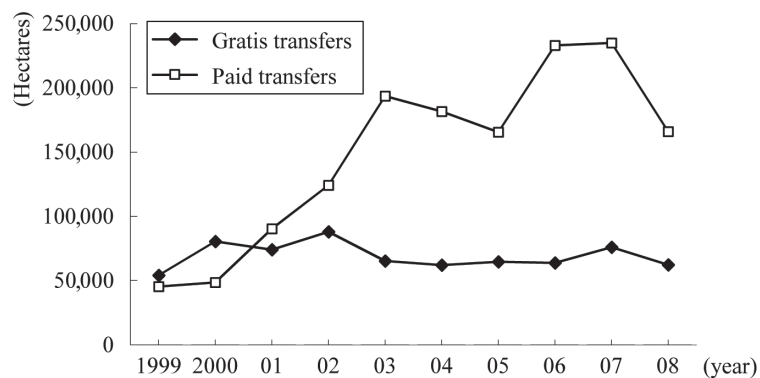
The most distinctive characteristic of China's real estate market is that land is publicly owned and what is allowed to be traded is only the land use rights, while ownership by individuals and corporations of housing and other real estate constructed on land is permitted. Because of this, China's real estate market has a complex structure consisting of different levels with different characteristics.

First, there is a market where regional governments expropriate agricultural land or old city land and transfer the use rights on a paid basis to developers and other businesses. This is the primary real estate market. Next, there is the secondary market where developers and other parties develop the land they obtain from regional governments, construct condominiums and other real estate, and sell the land use rights and the real estate ownership rights together as a package to individuals and companies. Finally, the used market and rental contracts for such real estate bought and sold on the secondary market can be understood as trading on the tertiary market.<sup>22</sup>

Among these, the arbitration with other assets assumed by standard economic theory is believed to function on the secondary and tertiary markets. However, the total amount of the stock of land on the secondary market and its expected return are believed to be greatly influenced by the volume of the supply of land on the primary market. Accordingly, let us now carefully examine the conditions regarding land on the primary market.

The primary land market is none other than the market where the government sells the rights to use land owned by the state in cities and agricultural villages to the private sector as explained above. These sales of land use rights can be broadly divided into the three formats of gratis transfer, consultation method, and bidding. As shown in Figure 7-4, until 2000 gratis transfers accounted for more land area than paid transfers, but since 2001 the latter has greatly exceeded the former. State land transferred gratis is believed to mostly be for demand by the state itself for the provision of public goods such as roads, parks, green belts, and cultural and educational facilities,<sup>23</sup> and the following considerations focus exclusively on paid transfers.

Figure 7-4. State Land Sales Area (Gratis and Paid)



Source: Same as Figure 7-2.

Among paid transfers, the consultation method is mostly the sale of land for the construction of factories and public facilities to certain developers and enterprises at a low price. Because attracting many factories to a locality increases the prospects for long-term tax revenues, regional governments are competing in establishing economic development zones and lowering the sales prices to enterprises,

reportedly sometimes almost to the level of the land acquisition costs. However, the percentage of consultation method transfers in total paid transfers is on a declining trend with government policies to promote competitive bidding (Table 7-2). The bidding system has suddenly increased as the development of agricultural land advanced full scale from the late 1990s through the land banking system mentioned above, and this format now accounts for the majority of transfers of commercial land and residential land (Table 7-3).<sup>24</sup>

Table 7-2. Percentage of Consultation Method in Total State Land Paid Transfers

	(Unit: %)					
	2003	2004	2005	2006	2007	2008
Area basis	72.02	71.12	65.44	69.47	50.1	16.1
Amount basis	43.35	44.65	28.69	28.26	17.5	7.1

Source: Same as Figure 7-2.

Table 7-3. Ratio of Consultation Method by Land Use (2005)

	(Unit: %)
Commercial land	15.13
Mining and manufacturing enterprises	89.54
Public facilities	50.2
Housing	8.11
Water-use facilities	72.37
Transportation (people and goods)	97.85

Source: Same as Figure 7-2.

Note: Ratios are on a monetary basis.

Looking at the data in Table 7-2, the consultation method accounted for 60–70percent of the total land area transferred through 2006, but only for about half that percentage on a monetary basis. This also shows the fact that land under the consultation method is sold for prices far lower than land sold under the auction and bidding method. As explained above, that is the result of regional governments competing for lower supply prices on the primary market to attract enterprises, and looking only at this point one might think the land market is under desirable conditions with competition working. On the other hand, however, this suggests the market is under monopsony for land acquisition by the government and that sufficient compensation is not being paid to farmers and others as land sales prices are decreased.

What is more, this phenomenon whereby clearly different transfer formats are used depending on the purpose of land use, with large price differentials, is considered an indication of the monopoly of regional governments over supply on the primary land market. The reason why is that this phenomenon can be understood as a typical price differentiation strategy by a monopoly enterprise, as explained below.

A price differentiation strategy is when a monopoly enterprise with price-setting power on the market faces two types of buyers with greatly different price elasticity of demand and sets lower product prices for the buyers with a high level of price elasticity. Well-known examples of typical price differentiation strategies include student discounts and the system of charging higher taxi fares late at night.

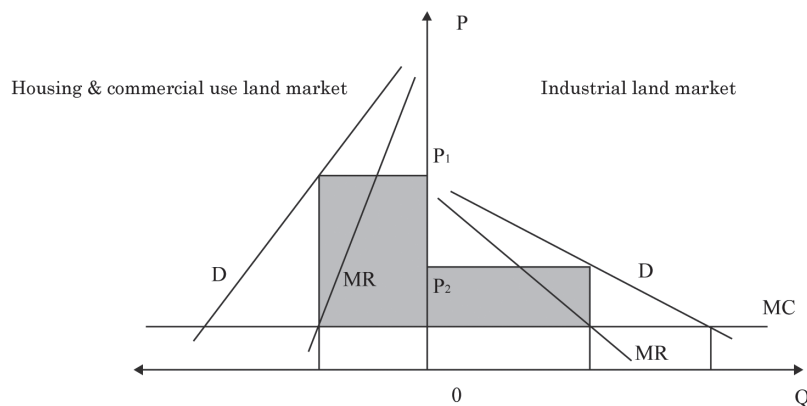
Then how does this apply to China’s primary land market? For example, when a manufacturing company is seeking land to construct a factory, except for cases where a special industrial agglomeration is formed, the company has no need to insist on any particular location, and is believed to be strongly attracted to locations with low land prices, personnel expenses and other costs. As illustrated by the

succession of manufacturing company production bases that are relocating from industrialized countries to developing countries, that is because the production locations of manufacturing firms are not necessarily restricted by the locations of the demand for their products. So the demand for land to construct factories is believed to have very high elasticity to land prices.

In contrast, because housing and commercial facilities are originally constructed anticipating the demand of local residents (their location is highly restricted by demand), their substitutability with other locations is considered low. For that reason, for example, if a given area has a large population and prospects of a certain level of profitability, there is an incentive to obtain land in the concerned area even if the costs are somewhat high. In other words, compared with land for the construction of factories, the price elasticity of the demand for residential and other land is rather low.

So if the regional government supplies land on a monopoly basis, it can adopt a price differentiation strategy for the demand for the two types of land. That is, it seems the regional government can supply land for the construction of factories at an exceptionally low price ( $P_2$ ) to attract as many factories as possible and secure future tax revenues (the case on the right side of Figure 7-5), while enjoying a high price ( $P_1$ ) and large monopoly rents for residential land which has low price elasticity (the case on the left side of Figure 7-5). In fact, according to the Ministry of Land and Resources, in the third quarter of 2010 the average land price per square meter nationwide was 5,018 yuan for commercial land and 4,085 yuan for residential land, with a large difference versus 623 yuan for industrial land.

Figure 7-5. Price Differentiation in the Land Market



Source: Prepared by the author.

While there may be some difference in extent caused by price elasticity, in both cases because the land supply volume is set at the intersection of the marginal revenue curve (MR) and the marginal cost curve (MC), the supply volume is less than that under full competition, so the land rents and land prices rise. The amount after deducting the compensation paid to residents and other land acquisition costs from the land transfer revenues (the shaded area of the figure) is the regional government revenue as monopoly rent on the land market.<sup>25</sup>

The fact that this type of price differentiation is actually being implemented can be confirmed by comparing the difference in the price elasticity of demand between land sold under the consultation method and land sold under other methods. Land use rights demand functions were estimated as follows for the case of sales under the consultation method and for the case of sales under other methods, respectively. Normally, price elasticity estimates should be made separately for each land use of commercial land, residential land, and industrial land, but because of data limitations, as a substitute we measured

land sold under the consultation method (primarily industrial land) and land sold under other methods (mostly commercial and residential land), and calculated and compared the price elasticity under each method.<sup>26</sup>

$$\ln(L_{dit}) = \alpha + \beta_1 \ln(P_{Lit}) + \beta_2(Y_{it}) + \mu_i + \varepsilon_{it}$$

Here  $L_{dit}$  is the area of state land transferred on a paid basis in Region  $i$  in Fiscal Year  $t$ ,  $P_{Lit}$  is the transfer price of the land,  $Y_{it}$  is GDP per capita,  $\mu_i$  is the effect by region, and  $\varepsilon_{it}$  is the error term. In the above equation  $\beta_1$ , of course, represents the price elasticity of land demand.

The land related data used is the area of land transferred on a paid basis in each province excluding Tibet as listed in *China Land & Resources Almanac* from 2003 through 2005, and the price per unit area is calculated by dividing the revenues from paid land transfers by the area of the paid land transfers. In these calculations the figures for transfers other than consultation method transfers are calculated by subtracting the figures for consultation method transfers from the totals. The estimations are conducted using the least squares method, converting three-year data from 30 locations into panel data, but the random effects model was rejected based on the Hausman Test results so the fixed effects model is used for both.

Table 7-4. Estimation of Land Demand Functions for Different Land Expropriation Methods

	$\ln(PL)$	$\ln(Y)$	2004 dummy	2005 dummy	$\bar{R}^2$	Sample size
Consultation format	-0.463** (-3.22)	-0.859 (-0.59)	-0.059 (-0.22)	0.469 (-0.93)	0.896	90
Others	-0.335* (-2.32)	-0.998 (-1.03)	0.067 (-0.36)	-0.035 (-0.10)	0.922	90

Source: State land paid transfer area and transfer prices are from *China Land & Resources Almanac* from each year; GDP per capita is from *China Statistical Yearbook* from each year.

Note:  $\bar{R}^2$  is the decision coefficient adjusted for the degree of freedom. Figures in parentheses are t values. Single and double asterisks denote rejections of the null hypothesis at significance levels of 5percent and 1percent, respectively.

Table 7-4 clearly shows that the case of sales under the consultation method has higher price elasticity (the coefficient of  $\ln(PL)$ ) than the case of sales under other methods. This also hints that the above-mentioned price differentiation strategy of setting low prices for land for factories that has high price elasticity while limiting supply and raising prices for residential and commercial land which has low price elasticity is in fact taking place in China's real land sales market.

The central government is responding to such land market conditions by implementing policies to restrict demand such as limiting real estate financing, but this has failed to have much effect in achieving the goal of stabilizing real estate prices. Given the structural supply shortage in the land market noted above, even when the central government implements forced tightening measures as seen in Shanghai in 2004 and real estate prices temporarily drop, the prices rise again shortly thereafter and the cycle simply repeats.

#### IV. Summary: Changes in the Pattern of Economic Development Led by Regional Governments

The problems with China's land market since 2000 examined above should be positioned in the

long-term context of development patterns led by regional governments since the reform and opening up began. This is because as also noted by Naughton (2007), there is a large difference in the significance of the role of the land market between during the initial stage of the reform and opening up (the 1980s) and after the systems reforms by Zhu Rongji in the 1990s.

Of course, there are also many points in common between the pattern of development led by regional governments in the 1980s and that since the 1990s. The shared characteristics can be summarized in the following three points:

1. The market does not have perfect competition, and there is always a margin for producing rents by government regulation.
2. Given the insufficient regular tax revenues, regional governments behave as economic actors seeking to expand their own fiscal sources (rents).
3. Under the conditions where there is no efficient financial system, the “mobilization of funds” through regional governments influencing local financial institutions has a large impact on the regional economy.

Nevertheless, there are also great differences between the two. The greatest difference is in the type of market intervention whereby regional governments generate “rents.” Broadly speaking, the development pattern in the 1980s was that regional governments supported the growth of local enterprises through intervention in local financial organs. The Sunan regional model called “local state corporatism” by Jean Oi was a representative example. In this way, while the economic development led by regional governments in the 1980s sometimes resulted in a loss of central government control over the regions, it also had the aspect whereby fierce competition among regions boosted productivity in the enterprise sector, and it increased funds that could be used by regions without depending on finance from the central bank.

In contrast, the case of rent seeking through the land market since the 1990s is characterized by having regional governments and real estate developers become rent beneficiaries through the monopoly supply of land. In this case, the main parties who bear the rent burden are the farmers forced to turn over their land for low compensation and the urban residents who purchase commercial housing at soaring prices.

The rent acquisition through the land market is believed to have greater loss of economic welfare compared with the growth pattern of the 1980s, particularly the creation of rent opportunities through financing to township and village enterprises.

For one, the land market, unlike the credit market, has a fixed potential quantity of the factor of production, and in the case of China the supply is controlled by the government on a monopoly basis. So no matter how harsh the “development competition” among regions through intervention in the land market may be, this is simply fighting over the division of the pie (rent seeking). As another point, because township and village governments have lost their fiscal sources in the fiscal and administrative reforms since the 1990s, the intervention in land markets is mostly by governments at the county and city level. This may be said to make the rent seeking acts in the market even more noncompetitive.<sup>27</sup>

Also, it must be noted that rent seeking through the land market has given birth to a new wealthy class of real estate developers and local government officials they work with, and this is closely tied to the new “gap” problem including forced land expropriation that is the cause of numerous riots by farmers. Since such gaps in contemporary society are linked with political power and wealth, it may be said that

the situation where the land market is being used for political rent seeking as discussed in this article warrants concern.

In any case, in the background of the situation in which intervention in the land market has become a main fiscal source for regional governments, important issues at the center of the future of Chinese society are hidden, including relations between the center and the regions, private property rights, and gaps among regions. Therefore, it is important to remember that there are limits to overcoming this situation only through regulation of real estate lending and other demand-side control.

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1. Reporting comprehensively covering this problem includes “The Decipherment of Land,” *Caijing Magazine*, no. 153 (2006). Also, Xiaohu Huang ed. (2006) presents details regarding the systems changes concerning such land issues. Qinglian He (2007) presents details regarding the farmers’ riots and demonstrations over land expropriation. Yanqiong Li and Rongmei Jia (2006) and Guolin Wang (2006) present details regarding the “landless farmers” problem and the living conditions of farmers after they lose their land.
  2. See Tahara (2006) for a political science approach concerning this point. Also, Zhe Ren (2009) presents details regarding the behavior of real estate companies, Qiuxia Zhu (2007) presents details regarding the relations with public finances, and Yulin Zhang (2007) presents details regarding the environmental problems accompanying agricultural land development.
  3. In writing this section, Hongyu Liu and Hong Zhang (2006) and Xiaohu Huang ed. (2006) were used as primary references.
  4. This is a system concerning expropriation of land in cities, and there were still strict restrictions in place regarding the conversion of agricultural land which is collectively owned into nonagricultural land. As explained below, the method which came to be used is that agricultural land is first nationalized through expropriation by the government and then transferred to developers.
  5. This “land banking system” has three different types: the Shanghai type which gives greater emphasis to the market mechanism, the Hangzhou type which is conducted under government initiative, and the Nantong type where the market mechanism is tied to land and resources management by the government (Xiaohu Huang ed., 2006, vol. 1: 23). At present, more than 1,000 cities have established land banking centers (Shengsan Jiang, Shouying Liu and Qing Li, 2007).
  6. For example, the revenue from bidding method land transfers nationwide grew by 40percent per year from 35 billion yuan in 2000 to 49.2 billion yuan in 2001. Also the percentage of the total land area transferred using the bidding and auction method increased from 15percent in 2002 to 33percent in 2003 (Xiaohu Huang ed., 2006, vol. 1: 30).
  7. For example, at the land banking center established in one eastern county, expropriated agricultural land accounted for 14.4percent of the total stockpiled land through 2001, but reached 88.3percent in 2002 (“The Decipherment of Land,” *Caijing Magazine*, no. 153).
  8. For information regarding the Rural Land Contracting Law, Yang Yao (2007) was used as a reference. Shengsan Jiang et al. (2006) provides detailed information regarding this law’s implementation conditions.
  9. For example, the Notification regarding Further Strengthening of the Management of Real Estate Financing issued in July 2003 required project self-financing of at least 30percent (35percent from 2006) when enterprises develop real estate receiving financing from banks. However, the 30percent self-financing had various “escape routes”; for example, about 70percent of the “self-financing” was actually covered by outside capital. See “Secrets of Housing Loan,” *Caijing Magazine*, no. 87; Japan Research Institute Research Department (2005); and other materials.
  10. Regarding the latest trends in the securitization of land in agricultural villages, see “The Restoration of Land Ownership,” *Caijing Magazine*, no. 222.
  11. The land use expenses were introduced for the government to collect land rents from state enterprises which had been using state land free of charge up until that time. The collection amounts were initially set at symbolic levels sufficient to show that the land ownership rights belonged to the state (Onodera 1997). The tax rate of the city land use tax was also initially set at a minimal level, but was increased to three times the prior level from 2007.
  12. To resolve such problems with tax revenues from land transactions and land holdings, the introduction of a more comprehensive real estate tax (property tax) has been examined (“The Start of Property Tax,” *Caijing Magazine*, no. 99; “Truth of Property Tax,” *Caijing Magazine*, no. 179). Thereafter, in January 2011 the cities of Shanghai and Chongqing both announced

- the introduction of a real estate tax on housing holdings on a trial basis.
13. In more detail, the following land use rights transfer revenues in the text can be broken down into three components: land acquisition expenses (including living expenses compensation to farmers), land and infrastructure preparation expenses, and sales and purchases revenues (transfer revenues).
  14. In fact, the transfer of these “revenues from expenses” can be summarized as follows. First, the government completes the relocation of and compensation for enterprises and residents who have been using the land until that time, prepares the land, and develops the basic infrastructure (roads, water supply, sewage, telecommunications, gas, [heating] steam, and grading.) and then transfers the land to real estate developers. See Onodera (1997).
  15. “Fund revenues” are a temporary category born amid the tax reforms since the 1990s in which funds outside the budget were incorporated into funds inside the budget. These are managed by each department including the industry, transportation, commerce, education, culture, and agriculture departments, but their expenditures have to be ratified by the central government. Their partial incorporation in general budget revenues is also being considered. See Haitao Ma, Yan Li, Gang Shi, and Huandong Xu eds. (2003).
  16. The decision was made to make all revenues and expenditures from paid land transfers subject to regional funds budget management in January 2007. At the same time, clear stipulations were made limiting the range of use of land revenues to land expropriation, eviction compensation, land development, farmer assistance, and city construction expenses (“Real Property Tax,” *Caijing Magazine*, no. 179).
  17. For example in 2007, the total amount of transfer revenues reached about 52percent of total regional public finances revenues (estimated by the author from *China Land and Resources Statistical Yearbook*, *China Statistical Yearbook*, and other materials). The ratio was believed to be even higher when examining only cities in the coastal region.
  18. See Shutian Guo (2005). According to this essay, the average compensation received by farmers was 3–5 years of their average annual income.
  19. The area of city land for construction ratified by the State Council in 2004 decreased 46percent from 2003 (Xiaohu Huang ed. 2006, Vol. 2: 76).
  20. The number of construction projects that were stopped in 2004 reached 1,327. In particular, the supply of land for the steel, cement, and aluminum industries for which there were concerns regarding duplicate investment was severely restricted (Xiaohu Huang ed., 2006, vol. 1: 35).
  21. In a free competition market, real land rents are determined at the equilibrium level  $R$ . Here  $q$  is the real price of land,  $r$  the nominal interest rate, and  $p$  the price level. Considering the case of an investor with 1 unit of land at term  $t$ , when the investor sells this land in the present term and invests the proceeds on the financial market, the investor gains revenues of  $(1+r)p_t q_t$  in the next term. On the other hand, if the investor does not sell this term and rents the land and then sells in the following term, the investor gains revenues of  $p_{t+1} q_{t+1} + p_t R$  in the next term. At the equilibrium level, these two revenues should match, so the land price  $q$  is set so that  $(1+r)p_t q_t = p_{t+1} q_{t+1} + p_t R$ . See Nishimura and Miwa, eds. (1990), chapter 5.
  22. The above expression refers to Shengping Gao (2007), and other materials.
  23. However, problems have been noted including regional governments actually using such land that should properly be used for public uses entirely for the construction of luxury office buildings and other structures. (Shengsan Jiang, Shouying Liu, and Qing Li 2007).
  24. However, it is important to note that among competitive sales methods, in recent years the method called *Guapai*, which has a stronger collusive nature compared with pure competitive bidding, has become the mainstream (accounting for more than 70percent of both area and amount in 2008). See Cai, Henderson, and Zhang (2009) regarding the problems with how sales under the *Guapai* method easily give rise to collusion between government officials and developers.
  25. As stated above, it has been noted that land sales prices for enterprises advancing into economic development zones and other lands for factory construction have been decreased nearly to the level of the land acquisition costs. Under such conditions, it might be thought that there is no leeway for acquisition of monopoly rents by regional governments which are land suppliers. However, as noted in the previous section, when enterprises locate factories they pay various expenses to different government departments aside from the land sales price, and the total amount of these expenses is of a scale that cannot be overlooked. These various expenses are not systematized like taxes, and so they are considered to be a type of rent generated because the regional government is the monopoly land supplier.
  26. Here, the price is not decided by the intersection of the demand curve and the supply curve as in regular goods markets. Rather, because the regional government supplies land on a monopoly basis, the hypothesis is that once the supply volume of land is decided the price is determined on the demand curve.

27. In recent years, there is a growing movement of “becoming shareholders” in which agricultural villages and farmers have been establishing their own corporations and other organizations for joint management of their own land assets and the profits of land development. Nanhai District of Guangdong Province is a model case of this type of land corporation management (Shengsan Jiang, Shouying Liu, and Qing Li 2007; Shengping Gao and Shouying Liu, 2007). This movement should be noted as indicating a possible decline in land market rents from competition among townships and villages on the land market.



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