

# **The Evolution of Property Rights in China: A Breakthrough in Shenzhen City**

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Thesis submitted in partial fulfillment of  
the requirements for the degree of Master of Arts in the Department of  
Political Science in the Graduate School  
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ABSTRACT

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## Abstract

This essay adopts a bundle-of-rights approach that allows the examination of the gradual and incremental change in a specific stick: the right to transfer land in China. This study investigates the recent policies on urban redevelopment in Shenzhen – a coastal city was chosen by the central government to explore possible solutions to problems happened in urban renewals. In these policies, institutional evolutions are made on the delineation of land property rights. The Shenzhen government formally grants the land transfer rights to the villagers who initially only have land use rights when they pay a fixed price to the government. The puzzling question is why the government that benefits from the monopoly control over land would be willing to promote policies restraining their own power? In this essay, I design a political model to identify four conditions for the occurrence of the institutional evolution: (1) the resource is scarce, (2) the government and individuals compete for the resource, (3) to enforce or operate the current institutions incurs great costs on the government, impeding it to acquire the resource. (4) the costs of changing institutions are much lower than the costs of operating the current institutions. I assume that when these four conditions were satisfied, the evolution of property rights over the resource would take place. This theory is tested and proved in Shenzhen case.

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# 1. Introduction

The role of government in the evolution of institutions is quite fascinating, and among the literature examining the determinants of the property rights, increasing attention on that has been given out (North, 1979, 1981). A state can establish efficient institutions contributing to the economic growth and social wealth in the long run. However, as the definer and enforcer of property rights, the state is not necessarily enacting such institutions, especially under the conditions that it benefits from not doing so. Many scholars have pointed out that the state prefers institutions which are conducive to maximize its utility in a short term (North, 1979; Lin, 1985; McChesney, 1990). As McChesney (1990) has cautioned, the governments may fail to carry out an efficient property system because they frequently benefit from the current system, such as government ownership which could assign them considerable rights over the land.

Interestingly, in the history of the evolution regarding the property rights institution, it is also often observed that the state changed the old property system which it benefited from and establish a more efficient one instead. In fact, what has been happening in Shenzhen city in China can be referred here as an excellent example. Shenzhen government recently initiates a new land reform regarding the redefinition of property rights on land. Several policies are made to grant to villagers the transfer rights to rural land which initially under the monopoly control of the government itself. It is really puzzling that why the government would refrain its own power and benefits, in spite of the reality in China that the local governments extract considerable revenues from their complete control on the transfer rights to rural land. To solve this puzzle, it is compelling to investigate the Shenzhen case in details.

As the pioneer of China's urban land reform, Shenzhen government has greatly benefited from China's property rights institution featured by the strict control of the state over

the land allocation. In fact, the huge profits come from its monopoly control over the transfer rights granted by the institution. Under this institution, land ownership is assigned to the state and collectives in urban and rural area. In addition, land use right is separated from the ownership and therefore can be leased out for urban use to generate profits. Within this framework, as the representatives of the state, municipal governments have been entitled the monopolistic rights to requisition rural land with inadequate compensation and transfer them to urban land users in exchange for capital in the form of land use fees. Rural residents are legally deprived of the rights to transfer rural land for non-agricultural use. Monopolizing the transfer rights during the rural-urban land conversion has provided municipal governments with a significant amount of local revenues, which in turn greatly fuel the urbanization process. It helped the government to attract foreign investors and develop industry, which paved the way for Shenzhen's dramatic economic growth.

In Shenzhen's new land reform, the government grants the land transfer rights to villagers under certain conditions, which indicates that the government is no longer the monopoly land supplier and beneficiary in the land market. Villagers can pay a fixed price to the government in exchange for the transfer rights to the land under their de facto control, even though this control is illegal. The new policies allow rural land to be transferred to land bidders in the market directly by the villagers, which improves the land use efficiency and enables the villagers to share the benefits from land transfers.

In this essay, I study the evolution of the rights to transfer land in Shenzhen city and investigate the underlying driving factors which lead to the evolution. Rather than focusing on the ownership change between individuals, collectives and the state, I merely examine the evolution of one stick in the bundle of rights - the transfer right to land in Shenzhen. Property rights primarily consist of the rights to use, the right to benefit and the right to transfer (Cheung, 1982).

The transfer right plays an essential role in economic growth as it allows the asset to flow in the market, which leads to its more efficient use and allocation. Consequently, its evolution is more important than the evolutions of other sticks in the bundle of rights.

In fact, in the perspective of traditional understanding of property rights as exclusive rights over resources, in other words, who own the resources, some practices of evolution ongoing in China may be neglected (Qiao, Upham, 2015). Take the evolution of use right to land happened in China 1978 as an example. At that time, farmers were granted the land use right that immensely improved the agricultural output, while the rural land ownership was maintained by collectives. Therefore, merely emphasizing ownership change would ignore the nuanced but important progress that have widely happened in the evolutions of property rights.

As discussed above, in this essay, I take the evolution of transfer rights to land in Shenzhen as the dependent variable. As for the independent variables, a political model is created on the government actions, inspired by the political model established by Riker and Sened (1991) and the costs theory developed by Cheung (1982). The main argument is that, the evolution of property institution would occur under four necessary conditions: (1) the resource is scarce, (2) the individuals and the governments compete for the resource, (3) to enforce the current institutions incurs great costs on the government, impeding it to acquire the resource. (4) the costs of changing institutions are much lower than the costs of operating the current institutions. In this argument, the incentive of both parties – the government and the villagers – is to maximize their benefits from the resource. I stress that the reason for the governments to refrain themselves and to adopt property rights institutions benefiting the society is that they are seeking to reduce the high operating costs. An interaction model is built to explore the role of the competition between the two parties plays to affect the costs the governments undertakes. I assume that, if these four conditions were met in some contexts, then the extant formal institution is likely to evolve.

Differing from previous arguments emphasizing governments' expectation to obtain net gains, in this essay, I argue that a property system may not be changed by governments until the high operation costs become obvious throughout society (Cheung, 1982; Zhou, 2010). The net gains theory may be convincing to explain why the governments support institutions which bring great profits to them, however, it is less convincing to explain why the government replace those institutions with the one may harm themselves. The basic idea in this essay is that the institution is likely to change when the operation costs of current institution are considerably higher than the costs to make a change. I illustrate this theory through the evolution of land property rights happened in Shenzhen. The government and villagers<sup>1</sup> have strived for the transfer right to scarce land in a long term. The enforcement of old institutions has given rise to great costs on the government, which forcing it to seek alternatives to reduce the costs. In Shenzhen, when facing the villagers' widespread resistance, the operation of old land institutions is costly, and meanwhile the costs of changing to new property rights are relatively much lower, then the evolution takes place.

Actually, some interesting research can also be noted on Shenzhen case, and among which Zhou (2013) inspired this study as well. Based on his field study in Shenzhen, it is argued that Shenzhen case is a great example which shows the clear and secure property rights are the premise of efficient economic growth. In addition, he also criticizes the deficiencies the reform

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<sup>1</sup> Here I group the villagers and the collectives as whole and assume they have homogenous interests when facing the government's extractive institution. There are two reasons: first, in Shenzhen case, the rural land only includes residential land occupied by villagers and construction land of the collectives. The agriculture land was already converted to urban land. Therefore, it is impossible for the collectives to transfer those land to earn incomes without the consent of villagers. As for the residential land, because it is physically possessed by villagers of daily use, the collectives cannot transfer it for its own profits. Therefore, it is impossible for the collectives to act in confliction with villagers. Second, in 1992 and 2004, the government turn all collectives to corporations and villagers as stakeholders. When these corporations maximize its benefits by utilizing the construction land, the villagers also are beneficiaries. Thus, in Shenzhen case, it is plausible to assume the collectives and villagers have homogenous interests.

faces, the new land policies only apply to indigenous villagers, which excludes other groups such as the migrant workers who rent and buy the houses from sharing the benefits.

This essay is organized as following. In the second section, the framework of property rights is elaborated in detail. After that, I explore the theories concerning the evolution of intuitions, with a special focus on the state's role. Then in the third section the current land property rights in China is introduced and a discussion is made on the constraints the local government faces during the institution transition. In the fourth section, the Shenzhen case is explored in depth for why the local government would concede and officially grants the transfer right to the villagers. The final section concludes this essay with a brief discussion on the land reform in China.

## **2. Literature Review**

In this section, I first explore two competing schools which lay particular emphasis on the essence of property rights. One holds that the exclusivity is at the core of property rights, while the other argues property rights consist of a bundle of rights, and different combinations of sticks may characterize different institutions. By comparing these two understandings, I point out that the bundle of rights approach is more fitting in a gradual changing world. Following this approach, one specific stick, the transfer rights to land, is singled out to analyze. Then I examine the local government's role in the evolution of the transfer rights in China after a detailed review of the state's roles on institution change.

### ***2.1 Definition of Property Rights***

I begin with an interpretation of property rights. It is widely accepted among economic and political scientists that property rights institution matters because it provides the basic incentive system and determines the resources allocation. To understand the logic of this point of view, it is compelling to look closer to the term "property rights".

In most scenarios, when scholars use the terms "property rights" and "ownership", they refer to similarly the "exclusive rights to the services of the resources" (Alchian, 2008). Exclusive rights can be held by individuals, communities and the state, and can be termed as private property, communal property and state property correspondingly (Eggertsson, 1990, p.36). This understanding is inspired by Blackstone's classic definition of property as "despotic dominion" of people over the external things (Merrill, 1998). The essential core of this in rem concept lies in the its exclusivity: the owner of the resources (the "things") can exercise the property rights exclusively without intervention from others.

In line with this understanding, scholars have paid much attention to the shifts between the public ownership and the private ownership. Levmore (2002) showed the conflicting explanations to the move towards privatization or towards the reopening of access to property. Banner (2002) further specified the mechanisms how the transitions between property regimes can take place. Moreover, considerable academic efforts were devoted to study the various aspects of the change in property rights in Russia, eastern Europe and China where drastic regime transformation happened (Weimer, 1997). As Demsetz (2002) has argued, the competition between collective and individual property was the primary issue of the 20<sup>th</sup> century.

From a different perspective, currently the widely - accepted conceptualization among the legal and political researchers is to view the property as “a bundle of rights” (Penner, 1995). The bundle-of-rights concept adopts an in personam approach which views the property as relations between persons with respect to things (Baron, 2013). Contrary to the traditional view which stresses the exclusivity of the property, the bundle-of-rights concept is more fitting to the situations under which property rights are probably divided and assigned to different persons. Alchian (2008) has described in detail how “private property rights to various partitioned uses of land are ‘owned’ by different persons.”

As Merrill and Smith have argued (2000), each stick in the bundle “can be added or removed without necessarily changing the characterization of the bundle as ‘property’.” In this sense, property rights can be disaggregated flexibly to satisfy the requirements caused by the social, economic and political development. As Qiao and Upham (2015) have indicated, the fundamental change of exclusive rights, only counts for a limited portion in the evolution history of property rights. For the most part, the evolution may simply involve with the gradual and incremental change of certain sticks. Therefore, in this essay I turn my attention to the inside structure of the bundle of rights: who has what sticks and how it changes.

In this essay, the evolution of the right to transfer is examined: the government in Shenzhen city in China grants the land transfer rights to local villagers who initially just have the rights to use. By this approach, one can observe the inner structure and focus on the change of specific right, instead of being trapped by the comparably static scenario: China's land ownership in recent thirty years remains unchanged.

It is noted that some scholars employ the in-rem concept to study the gradual change of property rights in China. They created several concepts to describe such change, among which the "incomplete property rights" (Bennett, Mehta, Xu, 2011) is used most frequently. This concept sets the full private property as "complete" and if part of rights is truncated or limited, then they argue it is "incomplete". However, in reality, the truncation of property is not an unusual phenomenon, which makes it more difficult to define the "full" private property. In this situation, this term may not help to capture the characteristics of institutional evolution but rather to further confuse understanding due to their contradiction to the reality.

## ***2.2 The Theory of the Evolution of Property Rights***

Why property rights emerge and change? Demsetz (1967) has answered this question concisely: "Property rights develop to internalize externalities when the gains of internalization become larger than the cost of internalization." In his thesis, the evolution of property rights is viewed as an automatic process echoing the new cost-benefit possibilities triggered by the price change of scarce resources, which is judged by Eggertsson (1990) as naive because of its solo consideration on the economic factor.

Differing from Demsetz's emphasis on economic factor, North and Thomas (1973) argued that the state plays an essential role on institutional change. They argued that although the state may promote long-term economic growth by adopting efficient institutions, it also may

pursue immediate benefits such as the generation of revenue and the public support. North (1979) assumed that the state's incentive is to maximize its utility, therefore the state "has frequently traded inefficient property rights for revenue, and by doing so throttled economic growth." The changes in property rights are in response to the changes in the state's utility needs.

Lin (1989) divided the courses of institutional change into two categories: induced change and imposed change. The imposed change, is "imposed by governmental orders or laws". In his clarification, the government's interests also are the driving force to the institutional change. He built an economic model in which the state only supports the institution innovation that can generate net gains for it. This innovation is not necessarily caused by a profitable opportunity that is not "attainable under the original institutional arrangement". The imposed institutional change, in contrast, can occur merely for the state's intention to redistribute existing benefits among different groups.

Riker and Sened (1991) provided a detailed example to illustrate how a new property right emerges in airport slots. In this article, they also stressed that the government expect the net gains from granting property rights. What is different is that they included the potential rights holders into the consideration. They specified three conditions necessary for property rights to emerge: (1) the scarcity of certain goods; (2) prospective rights-holders must desire the rights; (3) the government expects net gains by granting the rights. In this model, the incentives of the prospective rights-holders are of great importance. The potential gains from the new rights motivate them to require the rights from the government, which making it necessary for the government to weight the costs and benefits of granting the property. For the government, they assumed, the scarcity of the good makes its value exceed the enforcement costs, thus the government is willing to grant the rights and obtain the net benefits to its utility maximization purpose.

However, this net gains theory is too general to capture the nuances of the institution change, especially for the cases in which the governments change the property rights they benefit from. In reality, a costs theory proposed by Cheung (1982) is plausible to explain such institutional changes. In his thesis, institutional costs are classified into two categories: (1) costs generated by operating the institutions, for instance, the costs of delineating and enforcing laws; (2) costs incurred “in adopting or changing the institution” (p. 30). This category may include information costs to identify new possible institutions and the negotiation costs to reach agreements on the alternatives. Generally speaking, institutional change may be launched when the costs of continuing the current institutions are much higher than the costs to change; otherwise, institutions would stay at the status quo.

Greatly inspired by Riker and Sened (1991) and the costs theory of Cheung (1982), I build a political model to identify four necessary conditions for the evolution of property institution:

(1) the resource is scarce.

This is a limitation on both parties. The scarcity implies that the situation could not be alleviated by offering more resources, which forces the two parties to compromise under certain conditions.

(2) the individuals and the governments compete for the resource.

This condition means that both parties heavily rely on the resource to maximize benefits. At the center of the economic model regarding the state is the assumption that the state seeks to maximize utility (North, 1972, 1981), which may include the revenue extraction, career pursuits and other social considerations. In this article, I assume the same and indicate that the individuals also aim to maximize their benefits as the state. Both parties adopt various strategies to interact with each other to compete for the resource.

(3) to continue the current institutions incurs great costs on the government, impeding it to acquire the resource.

(4) the costs of changing institutions are much lower than the costs of operating the current institutions.

According to this theory, I expect that if these four conditions existed at the same time in Shenzhen, then the evolution of property rights would take place. Of course, institutional change is far more complicated in reality than theory due to possible influences from other factors such as culture and convention. Thus, the theory needs to be applied to Shenzhen case to test the assumption and the specific analysis also needs to be laid out.

### **3. The Land Institutions in China**

Before proceeding to Shenzhen case, the China's formal land property institution need to be discussed first. The analysis in this section starts with a study on the history of land property institution in China during the past three decades. Many political and economic change in this period were closely related to the land reforms (Rithmire, 2015, p.1). Given to the great importance of land institution, a clear and concise exploration of the its history paves the way for the further study on its trajectories of evolution. Closely connected with the next section in Shenzhen case study, this section primarily provides the formal institution as the foundation for the examination of institutional change in Shenzhen.

#### ***3.1 A Brief History of Land System***

In this part, I briefly introduce the history of land reforms with a special focus on the functioning mechanisms of current property institution. It is noted that the two land reforms didn't involve with the fundamental change of ownership.

In the early 1980s, the people's communes were dismantled and household contracts system was established to replace old communal agriculture. The 1982 Constitution formally separated the use rights from ownership: the rural land continued to be owned by the collectives, but the use rights to land were leased to households for a fixed term for free, and the land tenure would be renegotiated irregularly on the basis of the requirements of the collectives (Zhao, 2014). This two-tiered land institution permitted the individual household to use the land and benefit from the use of land, but not from its exchange (Rithmire, 2015). Through this land reform, the use rights to land ultimately returned to villagers, leading to a dramatical increase in agricultural outputs.

According to the LAL in 1998, the use rights to rural land refers to the rights for different purposes, including (1) the rights to farm the agricultural land; (2) the rights to build houses on residential land; (3) the rights to construct industry or infrastructure on construction land. The first and second rights are assigned to individual households while the third is primarily held by collective organizations (Ho, 2005).

As for the urban area, the commodification of the use rights to urban land marked the beginning of the second land reform in China. The 1982 Constitution also separated the use rights and ownership of urban land: the state is the legal owner and it can lease the use rights to land users in exchange for land use fees. The 1988 Land Administrative Law (LAL) also stated that: “Land-use rights may be transferred according to law,” though the related laws are never being enacted.

In the late 1980s, China started to experiencing a repaid urbanization and correspondingly the massive urban expansion. In this process, much of the rural land was requisitioned and converted into urban land by local governments. The current legal system for land requisition in China is promulgated by the LAL in 1998. It granted the local governments the monopoly right to requisition land owned by collectives for “public’s interest”. However, due to ambiguity of the term “public interests” in the law and the lack of independent judicial system, local governments inevitably broke through the legal limitations on land requisition. In practice, almost all the land for urban usage, such as for industrial, commercial and residential projects, had to go through the land requisition procedure conducted by local governments (Cao, 2013).

The standard process is that the local governments requisitioned rural land and converted it into urban land first, that is, turn the collective-owned land into state-owned land, then lease those land to urban land users. More clearly, such ownership change process becomes the prerequisite for urban land usage. As a result, according to this legal framework, even the owners

of rural land (the rural collectives) cannot to decline the requirement of local government to requisition the rural land, not even mention to transfer their land-use rights to urban land users privately. What's worse is that the compensation for the requisitioned land is insufficient by the law, and the rural collectives have not much power to negotiate the prices with the governments.

As discussed above, this urban land reform made land the most important source to generate revenue for local governments through the following mechanism: local governments requisition rural land with insufficient compensation (several times to the value of its agricultural outputs) and lease the land at its market value (50 times or more of the compensation) (Qiao, 2015). As a result, the coexistence of the urban land market and the monopoly power of the local governments to requisition rural land for this market made the governments the land managers who extract revenues from the land conversion. The more the urban land market develops, the local governments are more unlikely to abandon their monopoly control over land, since this would dramatically reduce their revenues (Rithmore, 2015).

The land property institution works as following: after the land requisition, local governments assign more than two-thirds of land into industrial uses at low sale prices (Wang, 2013). Reducing the prices for industrial land is a common strategy adopted by local governments to attract competitive industries, which can in turn generate revenues and enhance local GDP. Meanwhile, local governments limit land supply for other land use, such as for commercial projects and residential housing. Through this way, local governments "push the land price higher through the competitive bidding for scarce land", hence collect much more land alienation fees (Gu, Wu, 2010). From this perspective, the government's monopoly control over the urban land supply has caused soaring housing prices and low housing affordability which in turn triggers widespread social unrest (Cao, Feng, Tao, 2008).

## **3.2 Incentives of local governments**

As discussed before, the local governments have strong incentive to extract revenues and to improve the GDP. This incentive is not only shaped by the formal land property institution, but also other political and economic institutions. The economic institution, tax-sharing system in 1994, and the political institution of the cadre promotion system, combined to determine the officials' imperative to extract revenue and enhance local GDP from land manipulation.

### **3.2.1 1994 Tax-sharing System**

In 1994, the central state introduced the "Tax-sharing System" to increase its share of total fiscal revenues (Lin, Yi, 2011). Although the central state was successfully enriched by this tax reform, the local share of fiscal revenues decreased dramatically, from 80 percent to 45 percent in 1993-2002 period (Tsai, 2004). However, local governments still undertook heavy expenditure burden to provide public goods as previous. As a result, the local revenues and expenditures was greatly ill-matched.

This tax reform has provided local governments with great fiscal incentives to accelerate urbanization. In this process, local governments not only can obtain residuals such as tax and fees, but also can collect the enormous land alienation fees by their monopoly control over the land planning and redistribution (Lichtenberg, Ding, 2009). The city governments were designated by the Urban Real Estate Management Law in 1994 as the formal representatives who were empowered to address the land issues within their jurisdictions (Rithmire, 2015, p.57). By this arrangement, the city governments are greatly advantaged to maximize their benefits by monopolizing the local redistribution and management.

### 3.2.2 Cadre Evaluation

Besides the economic incentive, the incentive to advance political career also needs to be considered as an important factor that impels local governments to urbanize China. Because local officials are promoted by upper-level governments rather than local people within their constituency, they are forced to convince the upper-level leaders with constant great performance (Zhou, 2007). As Zhou (2007) has indicated, the GDP growth and tax revenues are perceived as the most important measurements by higher-level leaders. Therefore, this promotion system provides local cadres with strong political incentives to improve economic growth.

In order to get promoted, local officials not only need to be dedicated to improve the economic growth to outnumber their predecessors, but also have to engage in regional economic competition. In other words, the higher-level leaders are likely to collect and compare the performance of local cadres from different regions. In this situation, local officials are encouraged to increase the economic rank among the regions, which in turn requires higher rates of economic growth (Zhou, 2014). Therefore, the fierce local competition also provides the local officials with strong incentives to enhance the economic performance by manipulating the land supply to the urbanization.

In sum, under the formal land property institutions, local governments are strongly incentivized to extract revenue from rapid outward development of cities. The alienation of land use rights from local governments to urban land users has generated a significant amount of local revenues. As Lin (2007) has studied, the land alienation fees collected by some local governments have exceed half of their total revenues.

Although the current land property institution is effective to develop greenfield land, or in other words, to expand the cities outwards, it may face problems when apply to the situations of urban renewals. In China, especially in coastal cities, the urban renewal has become the

mainstream and “involved a different group of stakeholders for whom a new set of game rules has to be set and played” (Lin, 2015). These new rules must provide strong incentives for those stakeholders to engage in the urban redevelopment. If the old institution couldn’t satisfy the new requirements, then it would be revised or replaced by new institution to adjust into the new situation, as showed in Shenzhen case in next section.

## 4. Case Study: The Evolution of Land Transfer Rights in Shenzhen City

As a pioneer of China's economic reform, Shenzhen is the first city to design and practice the land property institution now prevalent in China. In September 1987, Shenzhen government leased the use rights to a state-owned parcel to a land user, marked the beginning of China's second land reform. Led by Shenzhen's experiment, the central government started to make institutional changes and ultimately established the current land property institution, which has played a critical role on China's economic development over the past three decades (Qiao, 2015).

During the past three decades, Shenzhen government has experienced an extra high-speed urbanization. Most of the agricultural land was converted to urban usage, left only the residential and construction land for villagers to live and develop village factories (Qiao, 2014). These remaining villages are called "urban villages" (*chengzhongcun*). Though located in the urban area, land in urban villages is still collective-owned<sup>2</sup>, and as the de facto controllers, the villagers still are deprived of rights to transfer land to urban use.

In the 90s of last century, the land price in Shenzhen was soaring, but the villagers and collectives were excluded from participating the land market with their land. The local government became the most notable beneficiary of urban land markets. This unbalanced interest distribution led to the fierce competition for the increased land value between the government and villagers. Villagers claimed their rights for the land by constructing buildings on their rural land, which were prohibited from transferring because the rural land they built on is not qualified for transaction. Those buildings were classified by the government as "illegal buildings" or small-

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<sup>2</sup> In 1992 and 2004 the Shenzhen government declared that all the urban land, including the urban villages, belonged to the state, therefore, the land has nominal state ownership. However, these declarations don't change the status quo: villagers still have the de facto control over the land and subject to legal prohibition of transfer right, therefore, we still treat land in urban villages as rural land.

properties (*Xiaochanquan Fang*). Shenzhen is the city with the highest ratio of illegal buildings, which accounts for nearly half of the city’s total floor space (Table 1).

In Shenzhen, the indigenous villagers are allocated 100 square meters’ land per household to build a residential house not exceeding 480 square meters’ floor area for free, and per household is only permitted to build one house. In addition, the collectives are entitled certain area of land to the collective use. Therefore, the buildings that violate above-mentioned regulations are illegal, including the following situations: the residential buildings built by villagers which exceed 480 square meters’ floor space or exceed the “per household one house” limitation, the residential buildings built by non-indigenous villagers or collectives; the commercial and industrial buildings built on collective-owned land which is illegally transferred to others.

**Table 1: Illegal Buildings in Shenzhen<sup>3</sup>**

	Number of Buildings	Total Floor Area
Illegal Buildings	356,852	392 million
Total Buildings	620,800	824 million
Illegal Buildings (% of Total Buildings)	57.49	47.57

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<sup>3</sup> The data comes from the research of Qiao (2015).

As a city with rapid industrialization and urbanization, Shenzhen faced one severe challenge differing from other cities, the exhausted urban land base. Almost all greenfield in this city has been developed into urban built-up areas. By 2020, only 59 square kilometers' land are available for Shenzhen to expand (Zhou, 2013). Under this severe situation, the government needed to seek the new way to utilize the land resource: claim and redevelop the land occupied by illegal buildings.

Since 2004, the Shenzhen government has begun to prioritize the redevelopment of urban villages to meet new land use demands. Accordingly, from 2004 to 2009, the Shenzhen government released several policies with different scales and purposes to regulate the urban redevelopment (Lai, Tang, 2016). However, those regulations and policies failed to achieve the government's goals since the government insisted on the old formal property institutions which have incurred great operation costs.

In order to avoid such costs, the government adopted a new institution in 2009 and complemented it in 2012. The new institution specified that the indigenous villagers and the collectives can pay the fixed price to the government in exchange for the transfer rights to rural land (Zhou, 2013). The new institution not only largely reduced the operation costs the government encountered but also brought the government and villagers into a win-win situation. In the later part of this section, I introduce the major policies adopted by the government before and after 2009, and compare their effects on government and villagers to help to illustrate how the evolution happened.

#### ***4.1 The Regulations and Policies in Land Property Rights before 2009***

The evolution of property rights in Shenzhen doesn't happen in one night. Before legalizing villagers' transfer rights to land, Shenzhen government has adopted many aggressive

policies to enforce the old institution and asserted its legal rights to develop and transfer land. In this study, I select three major regulations and policies and provide a game-theoretic model to analyze their unavoidable failures to redevelop the land in urban villages and deter illegal buildings.

#### **4.1.1 A Game Theoretic Model**

In this section, I build a game theoretic model to explore the interaction between the government and villagers when the government enforces the regulations and policies to protect its own monopolized control over the land redevelopment. In the interaction, the villagers incline to resist the extractive institutions of the government by utilizing various strategies, which incurs great costs on the government. In this part of this section, I generally introduce the interactions in the model. In the next parts, I apply the model to analyze specific regulation and policy, and further examine the costs faced by the government.

Before proceeding to the game model, it is necessary to describe the incentives and constraints both the government and villagers have under the dynamic political, economic, and social context in Shenzhen. Different incentives and constraint faced by the two parties have determined different strategies adopted by these two actors, and thus leading to distinct outcomes in the interaction.

##### **4.1.1.1 The incentives and constraints of the government and villagers**

As we discussed before, local officials have strong incentives to generate and extract revenues, and unsurprisingly, the monopoly control over land transfer is widely adopted to achieve above goals. The officials in Shenzhen government also bear the same incentive to convert the land use to a more productive way, such as industries and other commercial use, to generate revenue and improve the economic growth. Under the condition of land redevelopment,

the government is forced to find out ways to utilize the land under the de facto control of villagers to achieve its goals.

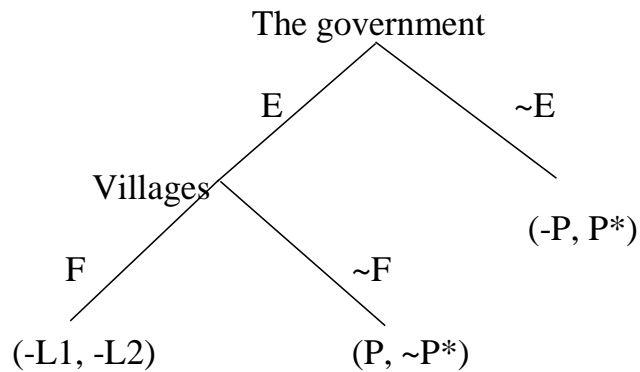
Villagers' incentives are to maximize their income through transferring the land under their de facto control. Without a doubt, rural land development and transfer is profitable. Villagers have witnessed the considerable profits the Shenzhen government earned from land sales and transfer. Therefore, when facing the legal systems that not friendly to them, villagers have not abandoned their resistance to defend their property, but rather actively utilize various strategies to do so (Zhao, 2014).

Nonetheless, villagers face great uncertainty about their illegal housings because of the legal prohibition. First, the rural land is not secure because of the possibility of being requisitioned by the government. Such insecurity provides strong incentives for the villagers to utilize their land for immediate interests (Lai, Tang, 2016). Researchers have pointed out that the value of illegal housing in black market only equals to one third to one half of the houses in formal market (Zhou, 2013). Second, because the rural land transaction is legally forbidden, it is hard for the villagers to attract competitive investors to improve the efficiency of land use. The opportunities attuned to the economic markets thus are often missed.

#### **4.1.1.2 The game theoretic model**

Considering the massive illegal buildings in Shenzhen, it is at first puzzling that the Shenzhen government has not been able to suppress and deter those behaviors, especially in a country where local governments tend to seize villagers' land coercively (Qiao, 2015). The Shenzhen government's initial responses to the illegal buildings on rural land was to enforce the legal prohibition, which turned out to be mission impossible. In essence, these policies intended to claim the land development and transfer rights are monopolized by the government, and assert the illegality of villagers' land transfer. To analyze the failure of the policies, a game-theoretic

model is built to manifest the tensions between the government and the villagers. The strategies two parties actually choose would depend on their respective expectations. The Game is shown in Figure 1:



**Figure 1: Game Theoretic Model**

In this model,  $P$ ,  $P^*$ ,  $L1$  and  $L2$  are numbers describing the payoffs of the Shenzhen government and villagers. They are positive numbers. The government has two strategies: enforcing the policies and not enforcing the policies, which are denoted as  $E$  and  $\sim E$  separately. The villagers also have two strategies: fighting back or not fighting back, which are denoted as  $F$  and  $\sim F$  separately.

Illegal buildings are separated into two layers: the legal rights of governments and de facto control of villagers (Qiao, 2015). Illegal buildings on one hand may occupy land which is not permitted to build, on the other hand, they increase the costs for the government to requisition the land in the future. Both ways restrict the government's ability to acquire the land for redistribution. Therefore, the government needs to adopt policies to deal with those buildings. The starting point of this game is that in the first node as Figure I showed, whether the government chooses to enforce the policy or not. If the government did not enforce the policies, then the villagers would keep their de facto control over the land to gain a payoff  $P^*$ , and

consequently, more legal buildings might appear due to the lack of policy intervention. As a result, the government would lose their potential gain of the land and the payoff would be  $-P$ .

Contrarily, if the government chose to enforce the policies, then the villagers would have two options. The villagers could accept the policies by abandoning their de facto control, then the villagers would lose their potential gain with a negative payoff  $-P^*$ . The villagers also could choose to fight against or not cooperate with the predatory policies of the government. In this situation, the government would subject to a loss denoted by  $L1$  and the villagers would suffer some harm denoted by  $L2$ .

The government's costs  $L1$  resulted from a clash or noncooperation with villagers might be significant. This costs would primarily have three types. The first one is the opportunity costs. The stagnation may last a long time and incur an uncertainty for investment which could otherwise happen in other cities. Particularly the social instability caused by the massive resistances would frighten foreign investment who favors a peaceful environment off. The second one is the enforcement costs, especially the costs to use the force and the costs of officials' supervising. Third, the information costs. These three types of costs are examined and laid out in detail in the analysis of specific regulation and policy in the next part.

Meanwhile, for the villagers, a direct confliction or a clear noncooperation with the government would result in the costs of  $L2$  which includes times and energies devoted to the fighting and the potential risk of being arrested. However, comparing to the villagers' expectation that keep the de facto land control which can generate huge benefits, including the current and future renting and transferring, the villagers would be willing to take the risk of the costs  $L2$ . In this sense,  $L2$  was assumed to be far less than the potential gain  $P^*$ . Thus, the villagers preferred fighting back to avoid losing the benefit  $P^*$ .

In addition, the villagers could mobilize multiple social and political resources to increase the government's potential loss. Although they lacked the legal channels to force the government to make a concession, they could resort to various means to defend their "property". First, villagers could develop the illegal buildings on mass scale to not only generate immediate benefits by utilizing the de facto transfer rights to land, but also to increase the information and enforcement costs of governments. Villagers are much more capable than the government in deciding the use of specific land plot because they are advantaged by the de facto control. Second, villagers are fully aware of that China government has viewed social unrest as a major concern from various channels (Zhao, 2014). Thus, they could demonstrate their resistance through "public order disturbances such as mass incidents, protests, petitions, the use of media to share stories, and even violent activities" (Zhao, 2014, p,166). Such resistance causes the government great costs to maintain the social order, compelling the them to bring villagers' demands into its decision-making process. Therefore, despite as a weak party in the interaction, villagers are still able to compete with the government. In this sense, the government is likely to choose not to enforce the policy in order to avoid the unaffordable costs L2.

#### **4.1.2 The Regulations to Redevelop Land in Urban Villages**

Before 2009, the Shenzhen government passed various regulations to deal with the new situations emerged in the urban renewal. According to those policies, the government played dominant roles in land redevelopment. Those policies in essence were consistent with the formal land institutions adopted nationwide. As the legal owners of rural land, village collectives were not entitled to convert and develop their land for urban use, while local government was legally granted the rights of land conversion and development.

The redevelopment of urban villages during this period emphasizes government control and land use planning (Chung, 2009). The government actually owned the power to delineate the

land property rights by making macro land use plans identifying areas needed to include in the projects of redevelopment and laying out the future land uses in these areas (Zacharias, Tang, 2010). Then the government requisitioned the targeted land and transferred them to land users for urban redevelopment. Following these plans, 184 urban village redevelopment projects were in place since 2004 (Lai, Tang, 2016).

The compensation to the villages based on the original agricultural use of this land, which was extremely low comparing to the expected gain on the land market. As a result, villagers would not accept it. As the game-theoretic model shows, if the compensation was far lower than the returns the villagers expected to gain, then villagers tended to retain their land. Therefore, the government frequently had conflictions with the affected villagers.

Unsurprisingly, those regulations suffered a great failure caused by the large costs incurred by enforcing regulations. First, the government faces significant enforcement costs. In order to obtain more benefits, villagers intended to divide the land which occupied by them legally and illegally into small parcels for different purposes. Then they rented or sold those parcels to various persons and factories. The government need to investigate every specific parcel and collect the detailed information of them, such as the physical attribution, the legality, the lessors and lessees and so forth. The convoluted relations on the fragmented land require the government to devote much effort to enforce the policies. It is even worse that the government can hardly find out the villagers' expectations to the illegal buildings (Qiao, 2015). The government normally would cut down the compensation by emphasizing the illegality of the land use, however, the villagers expect to obtain the market value of the land, thus, the two parties may be trapped into long time negotiation about the proper compensation. In this situation, the costs of the negotiation might be considerably high. The enforcement costs are more obvious when the government is in a direct clash with villagers. Because the redevelopment projects often

involved a whole community, the confliction might incur wide resistance and create instable social environment which reduced the credibility of the government.

Second, the government also suffers great opportunity loss due to the missing of opportunities to attract competitive investors on the targeted land parcels. If the government and villagers were in a long-term negotiation, or worse, in a confliction, the land would not be utilized efficiently by the market forces. For example, one parcel in Bao'an district was under negotiation for near three years, which forced the potential investors to look for other land to avoid further loss (Zhou, 2013). Therefore, under the state-led land requisition, the land cannot be used efficiently by the government, villagers and markets, which hindered the realization of government's goal to improve the efficiency of land conversion.

In sum, the regulations in this period impeded the redevelopment of urban villages and have caused large costs, thereby cannot satisfy the strong market demand for redevelopment. Despite their ambitiousness, the enforcement of those redevelopment projects was unsatisfactory. In fact, only 10 of these projects were running until 2009 (Lai, Tang, 2016).

### **4.1.3 The Demolition Policy**

The Shenzhen government has promulgated several policies to declare its determination to demolish illegal buildings. The regulation in 1999 was the most notable one, because the Shenzhen government clearly claimed those buildings as "historical illegal buildings" and indicated that the government would fight back with compulsory measures. Shenzhen government also established several groups consisted of departmental leaders to direct the monitoring and demolition, such as the Department of Land Use Monitoring found in 2009 (Qiao, 2015). Those groups commonly involved with bunch of officials and administrative resources. In order to better support their work, some expensive equipments, such as remote sensing

techniques, unmanned aerial vehicles, and other advanced technical means have been used to monitor illegal buildings (Hao, Sliuzas, Geertman, 2011)

Although the government has devoted much efforts to fight with the illegal buildings, the demolish policy was ineffective because it has incurred unaffordable costs for the government. First, it incurs great administrative costs. Except for the costs triggered by the delineation of various regulations and polices, the running of above mentioned various groups also exerted high administrative costs on the government.

The huge expense of demolition was also unaffordable to the government. For example, in 2010, one building with 17 floors and 900 square meters' floor area on Nanwan Street in Longgang district was dismantled, costing the government 2 million Yuan, approximately 2200 Yuan per square meter (Zhou, 2013). Based on this practice, it is predicted that if all the illegal buildings in Shenzhen were dismantled, that is 0.39 billion square meters' floor area, the Shenzhen government would spend more than 800 billion Yuan, which is far beyond the affordability of the government.

Moreover, demolition might incur potential enforcement costs the government. As the game-theoretic model showed before, to avoid lose the potential gain with the illegal buildings, villagers preferred to fighting back with the demolition. If the demolition suffered wide resistance, or even worse, developed into mass incidents, then it would give rise to immeasurable social, political and economic loss. To maintain social stability (*weiwen*) has become a "prioritized task that cannot be compromised by the growth of GDP" (Zhao, 2014).

Consequently, considering the great costs discussed above, the demolition is ineffective. The government has put the demolition as a declaration of governments' attitude towards illegal buildings, thus it is rare in reality, sometimes launched by the government as a campaign. The demolition policy has failed to deter illegal buildings.

#### **4.1.4 The Land Titling Policy**

Differing from the demolish policy intended to claim the development and transfer rights for current use, the land titling policy discussed below aimed to deter future illegal buildings. In 2001, the standing committee of the Shenzhen People's Congress promulgated a detailed regulation to require all de facto controllers of illegal buildings to apply for legal titles and pay fines and land-use fees which were determined according to the total floor areas of the buildings (Qiao, 2015). It is worth mentioning here the land titling only confirmed the land use rights and still refused to grant the villagers the rights to transfer.

As discussed before, Shenzhen villagers are granted use rights to a certain area of land: one household has been assigned to 100 square meters' land with 480 square meters' floor space on it. The areas within this limitation will be granted land titles for free. For the areas which have exceeded the limitation, the de facto controllers still can be granted legal land titles after they pay a certain price to the government.

Nonetheless, this policy also suffered a failure. From 2002 to 2010, no more than one quarters of total illegal buildings were granted legal titles (Zhou, 2013). Most de facto land controllers preferred to stay at the status quo did not see any substantial benefits from getting their illegal buildings legalized (Qiao, 2015). On one hand, they still couldn't transfer the land with market value which could make them better off; on the other hand, the registration would result in great loss for them due to the prices they need to pay. As a result, most villagers lacked the incentive to cooperate with the land titling project.

This plan will not resolve the conundrum with which the Shenzhen government has been confronted, since the information cost is too high for the government to enforce the policy, as the first policy we have discussed before. It is impossible for the government to discern and collect

the information of all illegal buildings. In addition, the noncooperation of the villagers also increased the costs the government undertook.

The most surprising outcome of this policy was the increased number of illegal buildings. This policy stipulated that the illegal buildings completed before 1999 would be registered and granted land use rights for free because in 1999 the government pronounced that the illegal building should be fined and demolished. However, the government possessed no detailed information for illegal buildings and therefore, it is impossible to differentiate buildings before 1999 from the similar ones. Furthermore, this policy was signaling to villagers that the government would eventually recognize and grant land use rights to all illegal buildings in the future. According to their experience, constructing more illegal buildings turned out to be the rational choice for villagers to maximize their short and long term interests. Consequently, this policy has created no incentive for villagers to register and buy the land titles, and to the contrary, it triggered further illegal constructions.

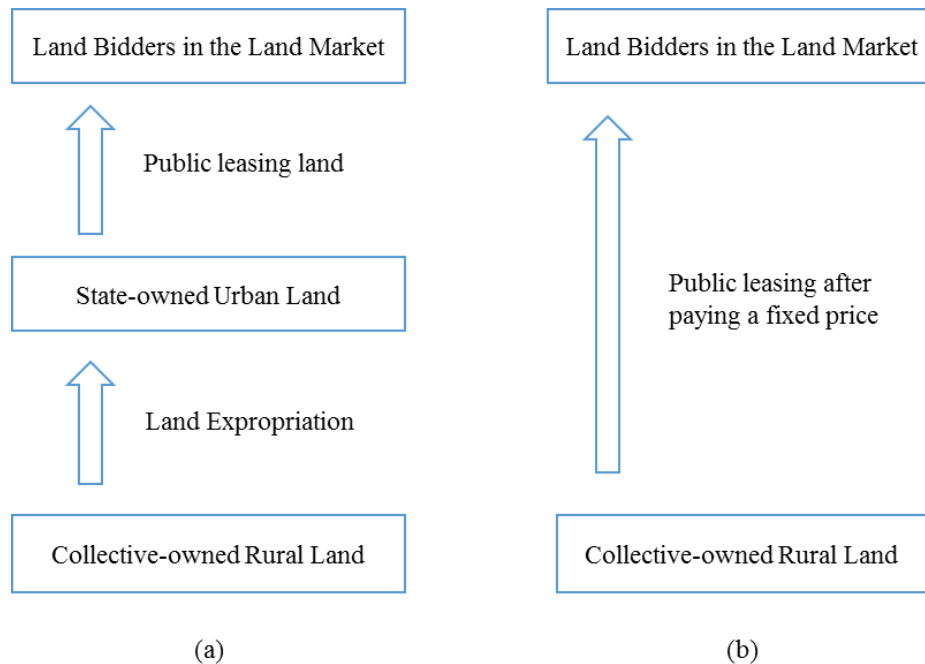
#### ***4.2 The Evolution of the Transfer Rights to land: New Regulations***

Given the great costs the regulations and policies before 2009 have caused, the Shenzhen government was in urgent need for alternative institutional arrangements on land property rights to reduce the high costs and facilitate land redevelopment. In 2009, the government enacted a policy guide to redevelop the urban land. In 2012, it made rules for the implementation. Also in 2012, the State Council approved the Master Scheme of Shenzhen Land Management Reform (MLR), marking the beginning of Shenzhen's new land reform. These regulations aim to develop a new land use mode to deal with urban redevelopments in highly urbanized regions. The Shenzhen city has granted the right to make innovative policies which might conflict with the formal institutions.

### 4.2.1 The Evolution of Land Property

Following those regulations, the Shenzhen government established new institutional arrangements to facilitate land redevelopment and support future urban growth. Among the many regulations, the government has developed a successful way to solve the conundrum: the 20-15 principle. It states that the government still has the ownership to land, but illegal possessors can have the transfer right by paying certain number of prices to the government. By paying 20 percent of land to the government and 15 percent of the rest land for infrastructure, in other words, 32 percent of total land area, then the villagers and the developers can apply to be included into the redevelopment projects (Qiao, 2015; Zhou, 2013). The developers still should pay the government with land use fees which are much lower than before through negotiation, a nontransparent way facilitates the agreement between the government and the developers. After approved by the government, the villagers then could transfer the rest of land to the developers at a both agreed price.

Figure 2 has examined the difference between the old formal institution and the innovations in Shenzhen case. Figure 2(a) shows the mechanism of the China's formal land system. The government requisitioned and converted to urban land first, then transfer it to the primary land market for urban use. Figure 2(b) illustrates the innovation of land property rights in Shenzhen. The primary difference between these two systems is that the latter allows rural land to be transferred to land bidders on the market directly by the villagers, while the former requires the intervention of the government.



**Figure 2: Comparison of rural land transaction procedure under the traditional land transaction system (a) and the Shenzhen breakthrough land transaction system (b).**

This rule gradually formed in numerous village redevelopment projects of Shenzhen (Qiao, 2015). Initially the Shenzhen government required that only legally developed land could be redeveloped. However, it was proved to be impossible for the following reasons. First, the land for redevelopments is featured by the interlocking of legal and illegal land. If insisting on the legality requirement, then the redevelopments projects cannot be established in reality. Second, the villagers would fight with the governments in order to maximize their benefits by including the illegal land into the projects, thus the government face wide resistance from villagers. The government ultimately made a concession that the projects can include up to 40 percent illegal land, since it realized that the village redevelopment is profitable only under the condition that villagers are willing to cooperate. Therefore, the government gradually loosened the requirements of legality and the 20-15 principle was established eventually.

This newly established institutional arrangement is widely accepted by potential market players, since it well balances the interests between the government and villagers. The indigenous villagers and collectives and other potential market players have the right to apply to redevelop the land parcels in the urban villages on the condition that the parties reach an agreement and organize a single project (officially called an ‘urban renewal unit’). The government only serves as an intermediate supervisor to generally monitor the process and ensure the enforcement of the agreement reached by all parties. In this process, the land including legal and illegal parcels (the illegal land could not exceed 40% of the total land area) is converted into state-owned land, but the villagers actually enjoy the transfer rights to specific parcels.

Under the new institutional arrangements, the government has returned transfer rights to rural land to the villagers and collectives. The role of local governments has shifted from that of a monopolistic land supplier to a land use regulator. The villagers are the actual decision maker based on their own calculation on benefits and costs. This way is more efficient than old ones because the villagers have the advantage of knowing best of the land. In 2011, among 3.8 million square meters of houses on land market, 1.5 million square meters came from village redevelopment projects (Zhou, 2013). The villagers are willing to participate in village redevelopment. In 2014, nearly one-third of the city’s newly increased land came from land redevelopment (Liu, et al, 2017). Compared to the old policies and legal prohibitions which have failed, this new evolution of transfer right has provided a successful paradigm to solve the illegal properties problems prevalent in China cities.

#### **4.2.2 The Theoretic Analysis of the Evolution**

As discussed before, the Shenzhen government suffered great costs under the formal land property institution, thus called for new institution to reduce costs and promote the land redevelopment. According to the institution costs theory by Cheung (1982), the emergence of the

evolution depends on two factors, one is the high costs to operate the current institution and the other is the lower costs to change it. Thus, in order to illustrate the evolution of land property, the costs to change need to be investigated in detail.

The costs of changing institutions include two sets of costs. First, the costs relate to the gathering of information about alternative institutional arrangements. Second, the costs of persuading or forcing the members whose benefits are negatively affected to accept the new arrangement. As I will discuss below, both sets of costs are low in the Shenzhen case.

The costs to acquire information of alternative institutions are low. In Shenzhen, the prevalent illegal buildings and unstoppable illegal renting and transfer behaviors already manifest villagers' desire for the transfer right to land. The new institution in fact is widely expected by villagers. As for the information about the proper interests distribution between the government and villagers, it also is clear to the government because it has experienced many negotiations with villagers when enforcing old institutions. It is not difficult for the government to accumulate such information and use them as the basis for institution change.

The costs to convince the potential dissenters also are low, because the new institution offers a win-win solution for both government and villagers. By enforcing the old institutions, the government can barely acquire land to develop, and land under de facto control of villagers also is unable to be developed by market factors. In contrast, under the new institution, the government obtains part of the scarce land to upgrade industries for potential GDP improvement and improve the quality of city infrastructure. In addition, it gains certain amount land grant fees come from developers by negotiation. Moreover, because the new institution brings market into the redevelopment, the land use rights are transferred more efficiently than before, and thus contribute to the GDP improvement and generate revenues needed by the government. For the villagers, accepting the new policy also is a better choice. The land under the illegal use is always at a low

productivity, hence the income is much higher when it turned into legal properties. Villagers can obtain compensations amount to market value and get access to credit market. In this sense, the villagers are willing to cooperate with the government's new land policy because it makes them better off.

Briefly to say, the costs of changing the old institutions in Shenzhen are much lower than the costs of operating them. Therefore, the evolution of the land property occurs, and provides an example and a plausible explanation to the assumption raised in the beginning of this essay.

Upon a closer examination to this evolution, I also find that it has lower operating costs than the old ones. The new policy provides an excellent alternative in the urban village redevelopment context by facilitating a coordinated implementation of land assembly in which the land transfer rights is redistributed back to the original land users. It brings the market factors into consideration, thus villagers and developers can negotiate with each other about the compensation and demolition fees. In this sense, villagers are the key decision makers in initiating and implementing redevelopment projects. Therefore, the costs of negotiation are transferred from the government to market.

In addition, the functioning of the land market also greatly reduces the information costs. After villagers and developers reached agreement, they would voluntarily ask for approval from the government. The government in this situation is no longer one party of the negotiation, rather, it is a service provider to facilitate and regulate the contract between the market factors. In other words, in response to changing economic and social conditions, the government has repositioned and strategized itself to adjust its own expectations: the government becomes land regulator and service providers.

Although the evolution in Shenzhen is fascinating and interesting, it still suffers some problems. It has a limited application on illegal land. According to the 2012 rules, the illegal land

cannot exceed the 30% of total land area. Two years later, the policy has broadened the portion to 40%. Considering the widespread illegal buildings in Shenzhen, it is necessary to further eliminate the constraints on the portion of illegal buildings. A progressive tax rate can be applied with the increase of illegal land in a project to balance the benefits between villagers and the government. In addition, this policy is widely used in the projects in the favorable location of the city because the expected high returns in the future. In contrast, the less benefited projects are hardly selected by the developers. This unexpected outcome calls for the adjustment of the policy to adapt various situations.

## 5. Conclusion

The bundle-of-rights approach allows researchers to examine the evolution of property rights in a more flexible and detailed way. Rather than focusing who own the property, this essay study the gradual and incremental change in specific stick of rights, which makes us better understand the ongoing change in China.

In Shenzhen Case, the government grants the transfer rights to the villagers and effectively solves the conundrums faced by the government in dealing with the city redevelopment, which may also shed light on other cities' problem solving. However, some unique characteristics Shenzhen possesses should also be considered when trying to extend its experience. First, Shenzhen enjoys the significant policy supports from the central state to make the institution innovations. As an experimental arena, the Shenzhen government owns much wider discretion to try a variety of means and policies to solve the problems. Second, Shenzhen faces severe land scarcity which pushes the government to negotiate with the villagers about the redevelopment of rural land. In other places facing the illegal buildings, they may continue the city expansion to seize the cheaper land, rather than to develop the intra-cities.

It should be mentioned here, the ownership of the land which villagers are granted transfer rights is still belong to the government. Liu Shouying, an expert on land issues in China, indicates that the public ownership is required by the ideology of the ruling party, and is the fundamental character of China's economic institutions (Rithmire, 2017). We may expect institutional reforms within public ownership, but not the complete abandonment of public ownership.

However, in the national level, the central state still adopts a way similar to planned economy that it manages the land supply and seeks a balance between economic growth and

political stability (Rithmire, 2017). These concerns notwithstanding, Shenzhen's breakthrough in marketizing the land use rights to rural land may mark the beginning of China's third land reform.

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