

Model Formation and Selection Logic in the Redevelopment of Collective Industrial Land from the Perspective of Control Rights: A Case Study of Dongguan

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Abstract

Land redevelopment is a process of establishing a new contract on the basis of existing incomplete contracts. In essence, it is a new agreement on the allocation of land value-added gains reached by government, society, and market actors through complex bargaining. Drawing on an analysis of control rights in the administrative, economic, and social fields, and integrating the rent gap, the sequence in which control rights are exercised, and cost-benefit relations, this study constructs an analytical framework for the formation and selection of collective-land redevelopment models. It then analyzes the control-rights configuration of collective land in Dongguan in light of the institutional context and examines the decision-making logic of actors and the continuity of control rights through four implemented redevelopment cases. The study finds that government has priority in the sequence of exercising control rights and can flexibly create different redevelopment models through institutional design. The relationship between existing control rights and the exercise of control rights can be summarized as “strong/weak existing control rights - low/high exercise costs” and “strong/weak post-transaction control rights - high/low exercise benefits.” The choice of redevelopment models by multiple actors is therefore the outcome of bargaining based on the cost-benefit calculus of exercising, and selectively exercising, control rights. Finally, the paper discusses how different redevelopment models may be applied by considering the matching and continuity of control rights.

Keywords: land redevelopment; model selection; control rights; Dongguan

1 Introduction

Collective land redevelopment can be understood as a process in which the government, land-rights holders such as village collectives, and social capital jointly negotiate the rights and responsibilities of redevelopment and establish a new contract. Since reform and opening up, de facto collective-land development in China has unfolded alongside a gradual shift from institutional absence to institutional improvement. In areas represented by the mixed village-town regions of the Pearl River Delta, land use has consequently displayed significant informal characteristics [1]. During the initial development stage, contracts were incomplete because of bounded rationality. In stock-land redevelopment, regulatory-plan amendments, delayed norms, and repeated bargaining again produce contracts that are incomplete within a given stage [2]. Modern property-rights theory, reflecting on the limits of classical notions of “absolute ownership” and “complete contracts,” regards the allocation of “residual control rights” over matters not specified in contracts as a central issue [3].

Beyond land-transaction contracts, multiple actors - governments, enterprises, village collectives, and others - lead or participate in policy-making, plan preparation and approval, negotiation and collective decision-making, and construction implementation. These actions imply principal-agent relations both within and among actors in a broader sense, together forming the reciprocal constraints embedded in redevelopment.

Dongguan is located in the eastern Pearl River Delta of Guangdong Province. In its early development, it relied on the location advantages of the Guangzhou-Hong Kong corridor and the opportunities created by reform and opening up to promote rural industrialization. With the rise of Shenzhen’s innovation economy and regional industrial restructuring, stock collective land has faced strong pressure to transform, while contradictions related to ambiguous property rights - a legacy of earlier regulatory vacuums - have become increasingly visible.

This study first defines control rights as the capacity of an actor to intervene in and control the allocation of rights among actors. It then clarifies the relations of control rights among actors in collective-land redevelopment and constructs an analytical framework of “control-rights configuration - benefits from

exercising control rights - model selection.” Based on control rights differentiated across fields, the study identifies the control-rights configurations of key rights holders in land redevelopment; uses the rent gap to analyze the cost-benefit calculus through which actors exercise control rights; and, together with the sequence of exercising control rights, explains the formation and selection logic of different redevelopment models. Four implemented cases in Dongguan are used to compare model-selection logic and characteristics under differentiated configurations of control rights.

2 Land Redevelopment and Control Rights: Related Research

2.1 Control rights in three fields

2.1.1 Control rights in the institutional field

In China’s institutional field, control rights take the form of hierarchical control exercised by public power, with law functioning as a tool through which higher-level authorities constrain lower-level powers. Vertically, the system forms a ladder of control rights composed of “goal-setting rights - inspection and acceptance rights - incentive-allocation rights” [4]. Horizontally, it presents a functional division of “decision-making rights - implementation rights - supervisory rights”^① [5]. This hierarchy of control rights in the institutional field affects the definition and allocation of public property rights. Cao Zhenghan [6] argues that in the traditional public-ownership economy, “control rights define property rights,” and that administrative levels formed “hierarchical property rights,” distinct from the private economy’s logic of “property rights defined by assets.” Montesquieu and others emphasized that regulating and controlling administrative discretion is one of the most important tasks of law, but China has long adhered to an instrumental view of law [7]. The state and governments at different levels constrain lower-level governments and social actors through legal forms at corresponding levels. Although laws and regulations possess internal textual logic, rationality, objectivity, and a hierarchy of legal effect, and thereby constitute nominally conferred property-rights forms and administrative bases in the legal sense, administrative actors that hold public power retain considerable discretionary authority in the making and implementation of regulations. Higher-level legislatures may restrict the behavior of particular lower-level administrative authorities; for example, China’s Land Administration Law has strengthened constraints on local governments’ land-expropriation powers^②. As an intermediary transmitting relations between the institutional and social fields, local governments also actively seek institutional innovation through policy pilots [8].

2.1.2 Control rights in the economic field

In the economic field, relations of control rights are based on contracts and revolve around bargaining over the efficiency of power structures formed by “enterprise organizations as market actors” and “contracts among market actors.” In new institutional economics, Coase and others [9] regard the firm as a mode of resource allocation that internalizes multiple market contracts. Scholars [10-11] have examined actual corporate control rights and chains of control from the perspectives of explicit shareholding and boards of directors as well as implicit social capital.

Among market actors, Grossman, Hart, Moore, and others noted that contracts cannot fully anticipate future contingencies at the time of signing and proposed the theories of incomplete contracts, residual control rights, and residual claims, arguing that residual control rights are the most fundamental aspect of property rights [12]. The allocation and matching of these two rights profoundly affect the economic efficiency of property rights [13]. Property rights undefined in historical contracts enter the “public domain of property rights,” generating broad rent-seeking competition [14]. In urban renewal, undefined public interest has become the key object of bargaining among multiple actors [15].

2.1.3 Control rights in the social field

Control rights in the social field are shaped by organizational ideas and social relations and are exercised through micro-level interactions among parties. In village collective economic organizations linked by locality and kinship, judicial and law-enforcement agencies often find it difficult to intervene effectively in arbitration [16]. Zhou Xueguang [17] proposed the concept of “relational property rights,” pointing to the significance of

social networks in property-rights practice. Zhe Xiaoye et al. [18] and Zhang Jing [19] respectively highlighted the roles of investment contribution and social power in distributing property-rights benefits. When legal institutions are unclear, property-rights practice contains an experiential “black box” [20]. Overall, scholars generally agree that the definition of property rights within collectives is spontaneously constructed through interaction, features closed property-rights and organizational boundaries, and is governed by implicit and informal “social contracts” not defined by law [21].

2.2 Relations and comparison of control rights across the three fields

In land (re)development, governments, village collectives, developers, and other enterprises follow the internal logics of three fields: legal constraints in the juridical sense, embedded governance rooted in historical relations in the social sense, and enterprise competition in the market sense (Figure 1). Although these actors have relative field autonomy within their organizations, they are not limited to the control-rights logic of a single field; implicit embedded mechanisms also operate among organizations. By comparison, state-owned enterprises have stronger agents and are governed and controlled by administrative power; shareholding cooperative enterprises can mobilize the advantages of capital pooling; and village-town enterprises possess land resources but face decision-making dilemmas caused by unclear property rights [22]. Local authorities are central to the definition and allocation of land rights [20], while village collectives actively seek “political embeddedness” in government by invoking historical problems [23]. In practice, actors strategically exercise control rights through legislation, internal control, and organizational embeddedness.

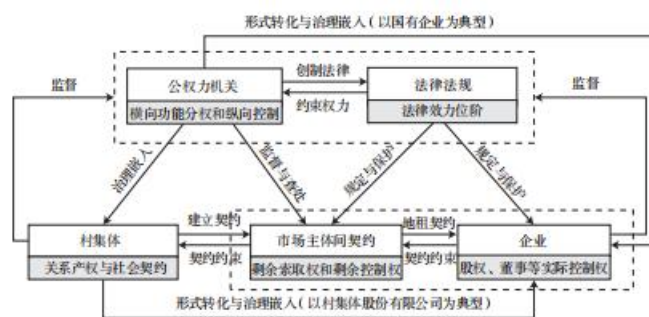


Figure 1. Control-rights configuration in the three fields and their interrelations

2.3 Control rights in land redevelopment

In recent years, scholars in urban planning have increasingly applied the perspective of control rights to land institutions and urban renewal. Zhu Yizhong et al. [24], drawing on tenant-farming theory and residual-rights theory, examined urban-renewal policy change from the perspective of residual-rights definition. Yan Yaqi et al. [25-26] combined control rights with development rights to explain the interweaving of “rights empowerment” and “regulatory restriction” in the development of collective commercial construction land. Huang Weidong et al. [27], drawing on Zhou Xueguang’s three types of control rights, compared the allocation of multiple control rights and governance models in the transformation of stock industrial space in three cities. Liang Yinlong [21] used control rights in the political, social, and market fields to reveal the bargaining mechanism of land development rights in urban renewal, arguing that policy-making rights, bargaining voting rights, and supervisory approval rights exist in the initial allocation, process, and outcome of land-development-rights allocation. In the institutional field, the state and government realize macro control over land development rights through means such as major function-oriented zoning and quota management. At the micro level, such control is implemented through detailed planning and urban renewal in the social field [28], while policies such as compensation standards and floor-area-ratio allocation rules regulate the balance of interests [29]. Building on previous studies, this paper develops an integrated framework for analyzing control rights across the three fields and reveals the configuration of control rights among key rights holders in land redevelopment and the logic through which redevelopment models are generated.

3 An Explanatory Framework for Model Formation and Selection in Collective-Land Redevelopment

3.1 Exercising control rights in land redevelopment and a cost-benefit analytical framework

In their study of “residual claims,” Fama et al. [30] extended the analysis to the “allocation of steps in the decision process among agents.” Chinese scholars have further discussed how control rights are delineated in urban-renewal decision-making^③. On this basis, this study refines the control rights in land redevelopment into “three categories and six rights” (Figure 2). The exercise by village collectives, other original property-rights holders, and market actors of decision-making rights, organizational rights, and implementation rights reflects the attributes of private rights and follows the logic of control rights in the economic and social fields. Legislative and planning rights, permitting rights, and supervisory rights are generally stipulated by laws, regulations, and policies. Their primary attribute is public power; their exercise is subject to higher-level and central regulation and follows the logic of the institutional field [21]. Decision-making, organizational, and implementation rights also exist within the institutional field, but their scope is limited to administrative actions inside state organs.

Control rights refer to an actor’s capacity to intervene in and control the allocation of rights among actors. They can be further specified as control over things and the capacity to intervene in behavior among people. They are relatively static structural relations. The strength of control rights is based on the legal and compliance grounds through which an actor intervenes in the behavior of other actors and controls land. It reflects the relations of mutual constraint and balance among actors, characterized by a dialectic of “the stronger one actor is, the weaker another becomes.” The exercise of control rights, by contrast, refers to concrete intervention in people or things. It is the practical deployment of control rights, the dynamic operation of an originally relatively stable structural relation, and it produces a new relatively stable configuration after redevelopment (Table 1).

To understand how actors make decisions when exercising control rights under the constraint of public interest, this study combines rent-gap theory with a cost-benefit relationship between the land rent gap and the exercise of control rights (Figure 3). It may be simplified as follows:

Rent gap (G) = rent gap captured by the public sector (G_p) + the cost for Actor A to exercise control rights (C_o) + the benefit for Actor A to exercise control rights (G_a).

The cost incurred by Actor A in exercising control rights (C_o) includes the rent value obtained by other actors in exchange for relinquishing part of their control rights as well as the rent value dissipated in the process.

Assuming the same property-rights arrangement and regulatory framework, if all actors maximize the release of the land rent gap (G), rent dissipation remains relatively constant, and differences in development and construction costs (C_o) are small, then the rent captured by each actor depends on the cost of reaching a redevelopment decision (C_d). This cost mainly derives from decision-making rights, organizational rights, and implementation rights. The strength of existing control rights is reflected in the strength of an actor’s legitimate grounds for intervening in the behavior of other actors and controlling land. For example, if members within an actor’s organization have a high degree of action consistency, land-use rights are clear and legal, and the actor has strong compensation capacity for residual claimants, then that actor’s control rights are relatively strong.

On this basis, the framework can be summarized as “strong/weak existing control rights - high/low costs of exercising control rights” and “strong/weak post-redevelopment control rights - high/low benefits from exercising control rights.” Actors bargain according to expected costs and benefits from exercising control rights (Table 1). When an actor’s control rights are relatively weak, attempting to lead redevelopment requires the actor to mobilize more external capital or human resources, or to relinquish part of its own benefits to secure cooperation from other actors. This constitutes the cost of exercising control rights. However, by actively exercising control rights and leading the development process, the actor may obtain stronger control rights after redevelopment. This is manifested in stronger capacity to intervene in the allocation of land rights and interests: the “strong party,” controlling more land-related powers, acts as Party A and enjoys returns through contracts dividing property rights, such as rents, taxes, or sale proceeds, whereas the “weak party” acts as Party B and holds more restricted rights. In practice, governments, village collectives, land-using

enterprises, and developers have differentiated control-rights characteristics and benefit-seeking orientations (Table 2).

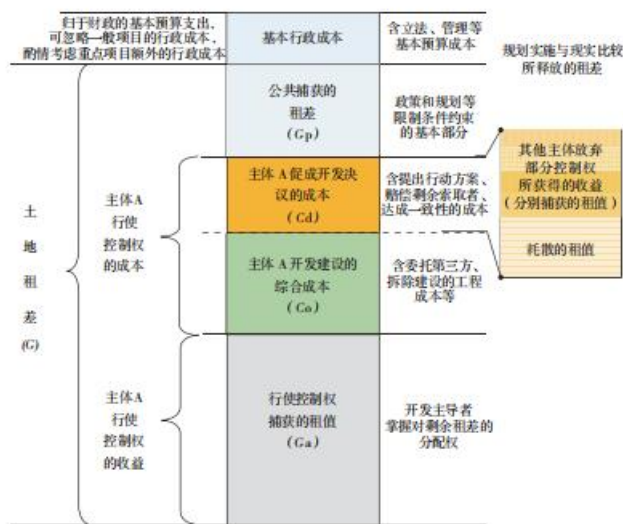
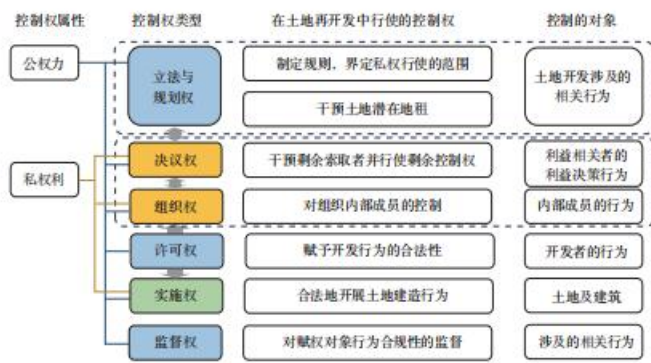
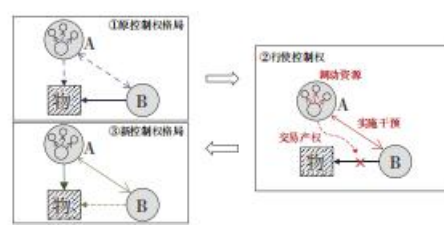


Figure 2. Typology of control rights based on land-redevelopment decisions

Figure 3. Land rent gap and cost-benefit structure of exercising control rights

Table 1. Conceptual distinctions between “control rights” and “exercising control rights,” and their cost-benefit relations

Item	Control rights	Exercising control rights
Definition	An actor’s capacity to intervene in or control the allocation of rights among actors.	Concrete intervention by an actor in people or things.
Connotation and components	Control over things; capacity to intervene in behavior among people (including people within and among organizations).	Changing the physical form of things; intervening in human behavior; intervening in people’s control over things.
Characteristics	Static relation; structural; realm of consciousness.	Dynamic interaction; processual; realm of phenomena.
Transformation relation		

Basis	Strong/weak control rights: strong/weak compliance grounds for an actor to intervene in other actors' behavior and control land.	Low/high exercise cost: fewer/more external resources need to be mobilized, or less/more of the actor's own benefits must be relinquished. High/low exercise benefit: stronger/weaker ability to influence property relations and greater/fewer gains obtained.
Pre-redevelopment relation	Strong pre-redevelopment control rights; weak pre-redevelopment control rights.	Active exercise of control rights involves low costs when existing control rights are strong and high costs when they are weak.
Post-redevelopment relation	Strong post-redevelopment control rights; weak post-redevelopment control rights.	Active exercise of control rights brings high benefits when post-redevelopment control rights are strong and low benefits when they are weak.

Table 2. Differential forms of costs and benefits when different actors exercise control rights

Actor	Strong existing control rights - low cost of exercise	Weak existing control rights - high cost of exercise	Strong post-redevelopment control rights - high benefit	Weak post-redevelopment control rights - low benefit
Government	Legislative and planning rights: relatively complete development-control and property-rights management systems. Decision-making rights: coordinated government-village relations and basis for cooperation. Implementation and organizational rights: experienced redevelopment teams, strong effectiveness, capital resources, and relatively effective SOE operations.	Legislative and planning rights: incomplete development-control and property-rights management systems. Decision-making rights: no basis for government-village cooperation, historical conflicts, or low trust from village collectives. Organizational and implementation rights: no redevelopment team, limited experience, weak effectiveness or resources, and poor SOE operating performance.	Residual control: continuous and nationalized land-use rights controlled by SOEs. Taxation: high integrated industrial benefits and high tax revenue.	Residual control: land and property rights not controlled by the state. Taxation: low integrated industrial benefits and low tax revenue.
Village collective	Decision-making rights: use rights to land and property have not been transferred. Organizational rights: strong internal consensus within the collective. Implementation	Decision-making rights: use rights to land and property have been transferred and contracts have long remaining terms. Organizational rights: weak internal consensus. Implementation rights:	Residual control: long-term control over the use rights to land and property. Leasing: high rents.	Residual control: land nationalization or transfer of use rights. Leasing: mismatch between space and market demand, poor operation, and low rents.

	rights: strong asset and capital accumulation.	weak asset and capital accumulation.		
Land-using enterprise	Decision-making rights: complete land-use rights and long remaining contract term. Organizational rights: high consistency in internal investment decisions. Implementation rights: strong enterprise performance and scale.	Decision-making rights: no land-use rights or incomplete property rights; short remaining contract term. Organizational rights: low consistency in internal investment decisions. Implementation rights: weak enterprise performance and scale.	Residual control: residual control over land and property use rights within the contract term. Use conditions: spatial suitability and long-term stability for production are secured.	Residual control: short contract term. Use conditions: weak fit between space and industry.
Market actor	Implementation rights: strong capital accumulation, flexible turnover, strong investment risk resistance, and sufficient market information. Organizational rights: strong development and operation capability.	Implementation rights: fragile capital chain and weak investment risk resistance. Organizational rights: weak development and operation capability.	Residual control: control over land and property use rights within the contract term. Sale: fewer sale restrictions and flexible disposal. Leasing and use: close interest relations between tenant enterprises and the group, allowing flexible control.	Residual control: entrusted only under a short-term contract and without actual property-rights control. Sale: strong restrictions on sale. Leasing and use: heavy operational restrictions and high requirements.

Table 3. Benefits and model choices under each decision sequence and leading actor

Sequence	Decision actor	Benefit from actor-led development (R)	Model selected	Ideal formula
First sequence	Government (g)	$R_g = G - C_{dg} - C_{og}$	Government-led model	$R_g \gg 0$
Second sequence	Village collective (v)	$R_v = G - G_p - C_{dv} - C_{ov}$	Village-collective-led model	$R_v > R_o$
Second sequence	Original property-rights holder (o)	$R_o = G - G_p - C_{do} - C_{oo}$	Original-rights-holder-led model	$R_o > R_v$
Third sequence	Developer (d)	$R_d = G - G_p - C_{dd} - C_{od}$	Market-led model	$R_d > R_v/R_o/R_g \gg 0$
-	-	-	Deadlock; status quo maintained	$R \text{ of all actors} < 0$

3.2 Formation and selection logic of land-redevelopment models based on exercising control rights

Previous studies have often classified land-redevelopment models according to land-ownership structures and

circulation characteristics, but have rarely defined the conceptual basis and generative logic of such classifications. This paper first defines “actor-led development” as a situation in which one actor exercises its existing control rights more proactively than other actors in order to intervene in the restructuring of property rights and thereby hold stronger control rights after redevelopment. In selecting the redevelopment leader, the strength of each actor’s existing control rights has an important but not decisive effect. The leader’s decision and the outcome of multi-actor bargaining depend on the comparative expectation of the overall costs and benefits of exercising control rights, and this process is constrained by the sequence in which actors have priority.

3.2.1 Actor decision sequence in the exercise of control rights

Drawing on extensive-form game analysis, this study reveals a sequence of actor decisions in the exercise of control rights during redevelopment (Figure 4). The first sequence is the government, whose priority is reflected in the constraints placed through planning, policies, and procedures on property-rights relations, model classification, and thresholds for funding or organizational access. The second sequence comprises village collectives and other current property-rights-related parties, including actual use-right holders. Village collectives have decision-making rights over whether collective land should be nationalized, but they are also constrained by historical contracts signed with other rights holders. Within the term of land-transfer or leasing contracts, current property-related parties may use residual control rights under the remaining contract to claim redevelopment benefits. The third sequence consists of developers, who can participate only when the government and village collectives require professional teams or financial support.

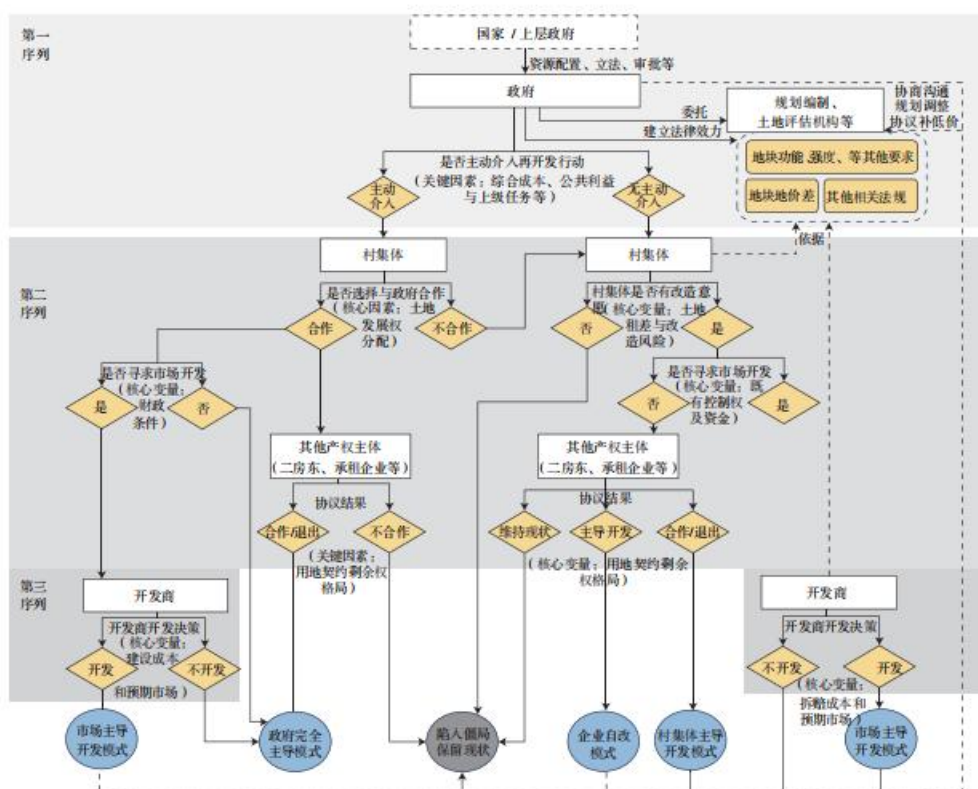


Figure 4. Pattern formation under sequential decision-making by actors

3.2.2 Actor participation in decisions based on expected costs and benefits from exercising control rights

Based on the decision sequence and the cost-benefit relationship, an ideal model-selection outcome can be constructed (Table 3). First, as the first-sequence decision-maker, if the government judges that the benefits of leading development are high, it proactively adopts land preparation or government-village cooperation and suppresses leadership by other actors. Second, when the government does not lead, the process enters the second decision sequence, in which the village collective and other property-rights holders bargain; the

actor with higher expected benefits becomes the leader. Third, the market-led model occurs when other actors' benefits are relatively low and development remains profitable for the developer. Fourth, if the government suppresses development, the potential rent gap is low, or actors' control rights mutually constrain each other, a decision-making deadlock occurs.

4 Empirical Cases: Land Redevelopment in Dongguan

4.1 Characteristics of control rights in Dongguan land redevelopment

Dongguan experienced a period in the early reform era when industrial space was in high demand while regulation was absent or ambiguous [31]. In bottom-up informal land development at the rural grassroots level, village collective economic organizations or related enterprises obtained strong control over land property rights. The resulting control-rights configuration can be described as “strong society/market - weak government.”

4.1.1 Clearly non-state-owned or informal land property rights

Stock industrial land in Dongguan is characterized by a high proportion of collective ownership, informal property rights, and fragmented spatial distribution (Figure 5). According to the Third National Land Survey, most industrial land parcels in Dongguan are smaller than 300 mu. Informal property rights are widespread: 50% of township-village industrial parks have not been registered or certified, and 76% of enterprises appear to use factories through “leases” but in practice engage in lease-as-sale and private transfer. Although collectives nominally hold land ownership, actual land users under historical contracts hold residual control rights. Land controlled by the municipal and town governments accounts for only a small share; citywide land resources coordinated at the municipal level make up only 5.2%④.

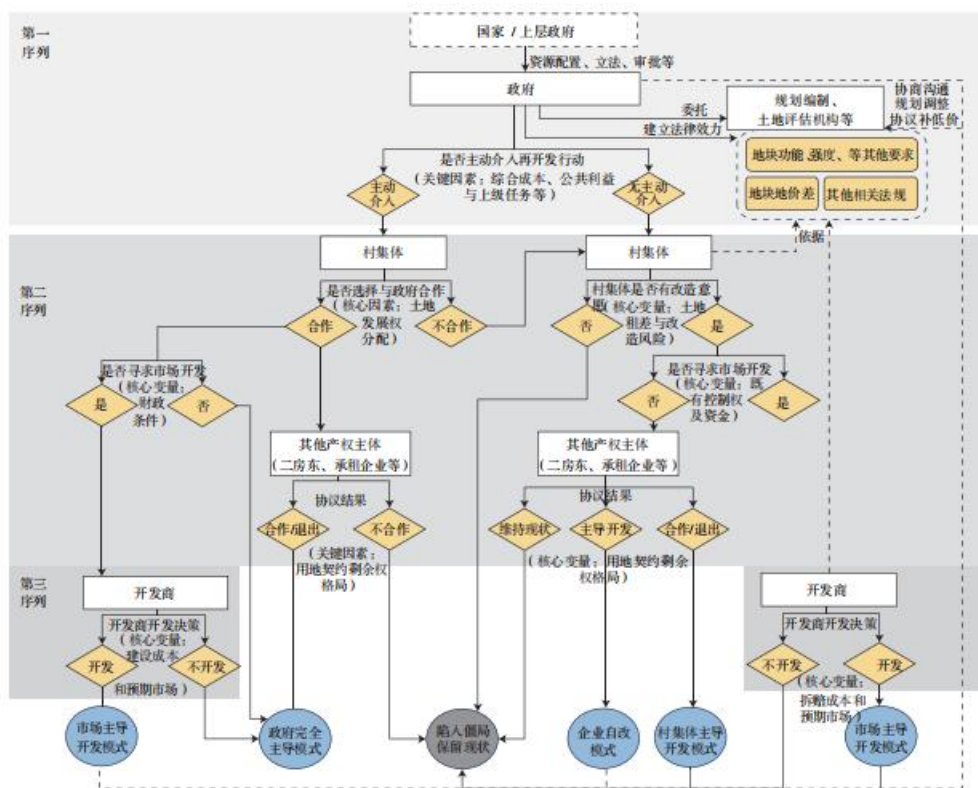


Figure 5. Property-rights structure of industrial land in Dongguan

4.1.2 Land-asset control shows “strong villages and weak towns”

The land-rent economy formed in earlier years became a powerful force for consolidating villagers' collective will, producing a governance pattern of strong villages and weak towns. By the end of 2019, the net assets of village- and group-level economies in Dongguan reached RMB 157.3 billion, accounting for 34.2% of the provincial total⑤. Village collectives controlled a large property stock: among the city's 360 million m2 of industrial factory buildings, self-built collective factories accounted for one quarter⑥. Given expectations

that floor area ratios could approximately double and rents could increase by about two times after redevelopment, some village collective economic organizations can bear an investment payback period of 15-20 years, although decisions must consider the conditions under which existing property rights can be recovered^⑦. By comparison, municipal and town-level public assets are relatively weak in asset circulation (Table 4).

Table 4. Performance of public assets in Dongguan (2020): municipal, town, and village-group levels

Unit	Total assets (RMB 100 million)	Net assets (RMB 100 million)	Total revenue (RMB 100 million)	Net income (RMB 100 million)	Return on total assets (%)	Return on net assets (%)	Asset- liability ratio (%)
Municipal SOEs	6770.6	1463.4	354.5	58.9	0.9	4.0	78.4
Town SOEs	918.3	507.7	72.7	7.6	0.8	1.5	44.7
Village/group collectives	2040.4	1713.4	254.3	189.7	9.3	11.1	16.0

Source: Statistical data from the Dongguan State-owned Assets Supervision and Administration Commission and the Dongguan Agriculture and Rural Affairs Bureau.

4.1.3 The city-town system lacks district-level coordinating capacity: strong governmental control but weak leadership

Through planning control, the government substantively controls land development rights. At the policy level, it specifies redevelopment procedures and planning conditions in detail and applies strict approval to projects. For projects involving market participation, for example, the process is divided into five stages: selection of an early-stage service provider, establishment of an urban renewal unit, confirmation of the redevelopment entity, preparation of the implementation plan, and supervision of land supply and implementation^⑧.

Dongguan's special two-level city-town administrative system produces a two-layer relation of "municipal control - town-level implementation" and lacks strong district-level coordination. The town level is important for fiscal revenue and development implementation; in 2019, only 20% of the city's fiscal revenue remained at the municipal level. Yet town governments are subject to municipal-level overall control over contiguous redevelopment in planning approval and implementation.

4.2 Comparison of collective industrial land redevelopment models based on typical cases

4.2.1 Government-led model

Case A is a contiguous land preparation project covering 2,000 mu.

Before redevelopment, the control rights of actors were relatively weak and balanced. The site was originally occupied by low-end industries such as textile printing and dyeing. In 2015, the withdrawal of "two-high and one-low" enterprises led to extensive vacancy in the area. Because the site was located in a dense water-network area, early contiguous development had been restricted. The village collective was economically weak and lacked bargaining advantages vis-a-vis original rights holders and developers.

Under this weak and balanced configuration of existing control rights, strong government intervention encountered relatively little resistance. District- and town-level governments actively sought administrative, fiscal, and policy resources from the municipal level, forming a configuration dominated by strong governmental control. With the new-town plan at the functional-zone level and the opening of rail transit, the functional-zone management committee and the town and villages explored policies around compensation for demolition, funding balance, and phased redevelopment around 2019 and gradually obtained municipal support. After the area was designated in 2020 as a municipal contiguous "industrial-to-industrial" grassroots reform and innovation pilot zone, the government actively exercised control rights in policy creation and district-town personnel coordination, established an on-site integrated command headquarters^⑨, and participated throughout the process in the issuance of management measures, regulatory-plan amendments,

negotiations, and construction. Organizationally, it obtained about RMB 2 billion in municipal early-stage investment. Within the organization, control over administrative members was formed through “goal-setting rights” and “assessment and acceptance rights”^⑩. Operationally, a holding company under the functional-zone management committee and a town SOE jointly established SOE platform company A1 with equal 50% shares, which led the area’s industrial development. After redevelopment, the government was able to control contiguous nationalized land.

4.2.2 Collective self-redevelopment model

In Case B, the village collective continued its advantages in coherent organizational decision-making, strong assets, and strong control over property rights. It proactively directed collective assets into redevelopment investment and retained land ownership. The project site was developed in 1994 by village collective economic cooperative B1, covering 173 mu with a floor area ratio of 1.0. At that time, regulation of collective land development was loose. The land and property lacked legal procedures and property certificates, but both were de facto controlled by the economic cooperative. The village ranked high in income within the town and had strong internal cohesion and awareness of asset management. In 2020, its collective total assets were about RMB 2 billion.

Through study and discussion among village elites, a consensus on self-invested redevelopment formed early among cadres and villagers, and short-term leasing was adopted to reduce clearance costs. After 2017, the parcel was entered into the “three olds” redevelopment mapping database. Dongguan’s 2019 “space expansion” campaign also encouraged the village collective to apply to raise the project’s floor area ratio from 1.0 to 4.0. The village collective entrusted real-estate investment enterprise B2 with early-stage services such as financing schemes and design, and obtained financial loans from Dongguan Rural Commercial Bank. The village collective invested RMB 900 million, negotiated planning changes with the municipal and town governments, paid an additional fine of RMB 560,000 for illegal land occupation^⑪, and retained collective ownership over the land and property. In industrial operations, the village collective proactively cooperated with the government: the first-phase factories were operated by town enterprise B3, which introduced enterprise B4, a technology complex specializing in a specific niche sector.

The municipal government encouraged towns and villages to participate in redevelopment through policy incentives, while the town government flexibly exercised organizational rights through the investment-promotion and operation team of a town-owned enterprise. The village collective and the leasing town enterprise formed a fixed ground-rent contractual relation.

4.2.3 Enterprise self-redevelopment model

In Case C, the land-using enterprise relied on strong industrial and financial conditions to invest proactively in redevelopment and promote an increase in floor area ratio, ultimately continuing its strong control over land property rights. The group to which enterprise C1 belongs was founded in Hong Kong in 1988 and moved from Shenzhen to town C2 in 2004, where it established its domestic headquarters. In 2004, although the state explicitly prohibited the market entry of collective construction land, Dongguan tacitly allowed it. Against this background, enterprise C1 privately signed a 50-year use-right transfer agreement with the village collective for about 4.7 hm² of land, built factories and supporting dormitories, and used them over the long term. After the “three olds” policy was implemented in 2008, the government entered the parcel into the “three olds” redevelopment mapping database. With support from the “three olds” policy for transforming enterprises, enterprise C1 proactively submitted its redevelopment intention, planning-change request, and property-right clarification application to the town planning management office. After signing the Agreement to Amend the Contract for the Transfer of Collective Construction Land Use Rights with the village collective in 2018, the enterprise began demolition of 13,000 m² of factory buildings in 2021 and constructed nearly 100,000 m² of new factory space. The project was completed and put into use in 2023 and was later included by Dongguan in its “multiplication plan” pilot program, receiving municipal support and rewards for production and operation.

In summary, land-using enterprise C1 initially held relatively strong control rights, and the benefits of increasing capital investment and expanding production motivated demolition and reconstruction. First, it held strong control rights in internal organization and development implementation, supporting RMB 420 million in upfront redevelopment funds and maintaining the production chain during redevelopment. Second, it held residual control over land-use rights for approximately 35 years remaining in the contract and occupied a strong position in legalizing use rights through an agreement with the village collective. Third, with expected annual output value of about RMB 1 billion after completion, it could recover its investment within a relatively short period of three to five years.

4.2.4 Market-led / village-enterprise cooperative redevelopment model

Case D is located in Dongguan's central urban area near the ring road. It was built in 1992 with a floor area ratio of about 1.4, and about 90% of its property rights belonged to the economic cooperative. After the 2008 global financial crisis, the site became largely vacant. However, driven by the spillover effects of science and technology services in the central urban area, it had potential for developing new industrial premises and had a large rent gap before and after redevelopment. After the subdistrict prepared the renewal-unit plan in March 2021, the gross floor area ratio reached about 3.6. The project contributed 15% of the land for road widening, and 70% of the building area was designated as new industrial space.

Because the economic cooperative had limited assets, it decided to list the project on the municipal public resources trading platform and selected real-estate enterprise D1, which had strong operational capacity, as the development entity. Through monetary and property compensation, the enterprise acquired interests in about 12.04 hm² of land and 160,000 m² of buildings, obtaining clearly defined state-owned land-use rights and attempting to use the returns from commercial-residential land to balance short-term redevelopment costs. The Dongguan municipal government supplied the consolidated nationalized land to the enterprise by negotiated conveyance. Enterprise D1 is effectively controlled by group D2, headquartered in Shenzhen. D2 was ranked among China's top ten industrial-park operators in 2020. Its strong capital base supported RMB 2.7 billion in upfront investment. D2's industrial resources also supported subsequent operations: 10%-20% of the industrial space could be leased or sold to internal enterprises, with an investment payback period of only ten years.

In this model, the developer used its advantage in low-cost allocation of internal resources to exercise organizational and implementation rights proactively, promoted land nationalization, and ultimately obtained residual control over state-owned land-use rights in order to flexibly capture future rent gaps. The government defined basic public interests and clarified model rules by exercising legislative, planning, and permitting rights. The village collective and original land-using enterprises, as residual claimants, could use decision-making rights to share the land rent gap.

4.3 Summary comparison of models

The four cases show in depth the characteristics and mechanisms of the four redevelopment models for collective industrial land in Dongguan (Table 5). The pre-redevelopment control-rights configurations can be divided into a balanced control-rights configuration (Cases A and D) and a single-actor dominant configuration (Cases B and C). After redevelopment, the former becomes a configuration in which a certain actor intervenes strongly and takes the lead, while the latter becomes a configuration led by the originally dominant actor.

Table 5. Comparison of four redevelopment models

Case	Redevelopment model	Pre-redevelopment control-rights configuration	Intentions of actors	Post-redevelopment configuration	Control rights exercised by leading actor	Benefits of leading actor after redevelopment
A	Government-led model	Land-use rights were	Village collectives and	Government-led strong	Government actively	Contiguous land was

		dispersed; government designated the area as a contiguous land preparation zone.	investors could benefit and therefore cooperated actively.	intervention.	created policies for the area and mobilized municipal and district fiscal and human resources.	nationalized and an emerging industrial chain could be introduced.
D	Market-led / village-enterprise cooperative model	Property-right holders had weak conditions for controlling rights.	The development entity adjusted according to market conditions and policy incentives.	Strong intervention led by a certain actor.	Internal organizational resources were mobilized to facilitate stakeholder decisions.	Partial land nationalization and a small amount of commercial-residential land development were achieved.
B	Collective self-redevelopment model	Land and property use rights were controlled by the economic cooperative; the cooperative was strong and had consistent internal decisions.	The collective had strong redevelopment willingness; the government shifted from hesitation to encouragement.	Original strong actor remained the leader.	The economic cooperative led decisions, investment, and implementation while seeking governmental cooperation in operation and planning adjustment.	High rental returns from land and property, with property-right control retained.
C	Enterprise self-redevelopment model	The enterprise held residual control over land-use rights within the contract term.	The enterprise had strong redevelopment willingness; the government actively supported local enterprises in value enhancement and capacity expansion.	Original strong actor remained the leader.	The enterprise led investment and implementation while seeking governmental planning adjustment and project-establishment support.	The enterprise obtained regularized and complete collective land property rights and space for capital investment and production expansion.

5 Discussion and Conclusion

5.1.1 Discussion: applying models based on the matching and continuity of control rights

Based on the “strong-weak control rights” and “cost-benefit” model and on implemented cases, this study

emphasizes clarifying initial property rights and control rights and attending to the continuity and matching of control rights in order to reduce transaction costs and rent dissipation in redevelopment. If control rights are concentrated in a particular actor in the initial configuration, that actor is more likely to lead redevelopment; this reflects the continuity of control rights. Existing studies have also argued that fewer property-rights holders are associated with a higher probability of implementation [32], and that matching residual claims with residual control rights is the property-rights arrangement most likely to maximize effectiveness [33]. Based on matching and continuity, this study attempts to use the “degree of shared land property rights” and the “degree of governmental control” to characterize practical model features and selection tendencies from the perspective of control-rights allocation (Figure 6). It further discusses a “tiered control” approach in which government acts as both a planning coordinator and an implementation intervenor in industrial land redevelopment. In the early stage of planning, the control-rights configuration of stakeholders should be examined, with attention to property-right coordination and the investment capacity of each actor. In planning and implementation, areas with high redevelopment potential should be designated as key redevelopment zones. Within them, areas where village collectives have weak control rights or where overall control rights are balanced should be designated as key coordination areas⁽¹²⁾. Government should concentrate efforts on negotiation and interest coordination in these areas, while actively guiding and driving other property-rights holders within key redevelopment zones but outside key coordination areas to pursue autonomous renewal or cooperation with developers.

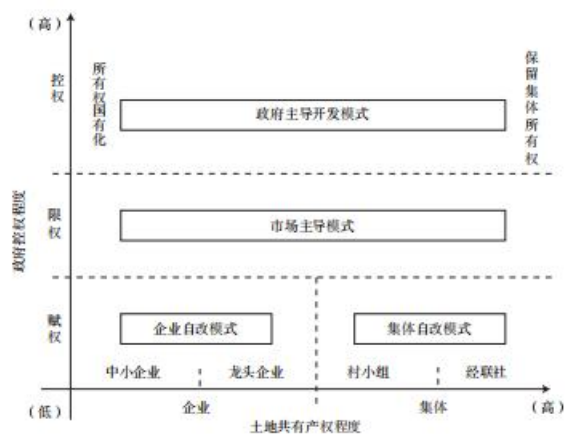


Figure 6. Four land-redevelopment models: differentiated by intensity of common property rights and degree of exercised governmental control rights

5.1.2 Conclusion

This study proposes three main conclusions. First, the choice among redevelopment models is the outcome of multi-actor bargaining based on existing control-rights configurations and the selective exercise of control rights. Second, government has priority in the sequence of exercising control rights and can flexibly create different models. Third, based on the matching and continuity of control rights, this paper discusses model design through tiered governmental control.

The study has the following limitations and possible directions for further research. First, more detailed mathematical models are needed to measure the strength of control rights among different organizations and the costs of exercising them. Second, when an actor holding certain control rights chooses opposition, the cost for the leader to exercise control rights necessarily rises; such real-world deadlocks require further analysis using game theory and residual-rights arrangements. Third, this paper only establishes a preliminary explanation of “one actor leading development.” Based on the strength of control rights, further explanatory models of bilateral or multilateral cooperation can be developed.

In economic research on property rights, structural paradigms such as exclusivity, structure, and hierarchy are central. The perspective of control rights extends this analysis to the sequential and dynamic nature of

decision-making in situated practice, attends to the differentiated forms of control rights held by different actors, and offers strong explanatory power for the complex interactions among the economic, institutional, and social fields.

Notes

- ① China's "functional decentralization" refers to intra-organizational decentralization under centralized and unified power and emphasizes an active view of governmental action. Western political decentralization, by contrast, refers to the tripartite division of state power and aims at checks and balances [5].
- ② The Land Administration Law adopted in 2019 specifies the scope of land expropriation and requires "contiguous development." The Ministry of Natural Resources subsequently further strengthened standards for contiguous development.
- ③ Fama et al. divide the decision process into initiation, ratification, implementation, and monitoring [30]. Based on Fama et al.'s classification, Zhu Yizhong et al. divide control rights in urban-renewal contractual relations into proposal rights, planning and approval rights, execution rights, and supervisory rights [28]. Liang Yinlong uses a bargaining framework to propose policy-making rights, supervisory approval rights, and bargaining voting rights affecting the allocation of land development rights [22].
- ④ Data source: Ten-Year Assessment Survey of Urban Renewal in Dongguan (2021).
- ⑤ Data source: research group of the rural revitalization professional group of Dongguan Municipal People's Congress deputies. By the end of 2020, the city's village and group collectives owned 103.55 million m² of property. Rental income from village and group collective property reached RMB 18.05 billion, accounting for 70.9% of total income. In 2020, Dongguan village and group collectives owned RMB 21.44 billion in enterprise (project) investments, with annual returns of RMB 2.04 billion and an annual return rate of 9.5%.
- ⑥ Data source: research statistics of the rural revitalization professional group of Dongguan Municipal People's Congress deputies.
- ⑦ According to interviews, current village-level property rents in Dongguan are close to RMB 8-13/m², with floor area ratios of 1-2.5. If the post-redevelopment floor area ratio is controlled at 3.5 and rents approach RMB 15-16/m², the expected payback period is 15-20 years.
- ⑧ According to statistics from China Business News, from 2020 to 2022 more than 300 enterprises won bids as early-stage service providers, but fewer than 10% of projects advanced to the renewal-unit delineation stage.
- ⑨ Members of the general headquarters included the principal leaders of the district-level urban renewal bureau, natural resources bureau, industrial development bureau, and functional-zone branch of the municipal finance bureau. Members of the on-site headquarters were drawn jointly from the town and the functional zone.
- ⑩ To facilitate market transactions, the then chief administrator adopted a mobilizational approach, held weekly joint law-enforcement meetings, convened departments of natural resources, urban management and comprehensive law enforcement, public security, fire services, and others, mobilized forces for on-site inspections, and supervised the withdrawal of backward enterprises. The administration also collected information, participated in coordination, lowered transaction costs for property-rights holders, and mobilized judicial forces for mediation.
- ⑪ In 2020, the municipal natural resources bureau issued an Administrative Penalty Decision to economic cooperative B1 and imposed a fine for illegal occupation at RMB 5/m², requiring an additional payment of about RMB 561,000.
- ⑫ Since 2022, Dongguan has launched "area-level coordinated planning," forming a three-level "three olds" planning system of municipal special planning - area-level coordinated planning - unit planning. The municipal level delineates six cross-town contiguous industrial parks, while the town level delineates sixty modern industrial park areas, with area-level coordinated plans prepared at a scale of 1-3 km².

References

- [1] 黄颖敏, 薛德升, 黄耿志. 改革开放以来珠江三角洲基层非正规土地利用实践与制度创新: 以东莞市长安镇为例[J]. 地理科学, 2017, 37(12): 1831-1840.
- [2] 何冬华, 刘玉亭, 王秀梅. 不完全契约下土地剩余权博弈与配置机制研究: 以广州 YH 地块城市更新土地整备为例[J]. 规划师, 2021, 37(17): 68-73.
- [3] HART O. Firms, contracts, and financial structure[J]. Oup Catalogue, 1995, 32(3): 446-452.
- [4] 周雪光, 练宏. 中国政府的治理模式: 一个“控制权”理论[J]. 社会学研究, 2012(5): 25.
- [5] 陈国权, 皇甫鑫. 功能性分权与中国特色国家治理体系[J]. 社会学研究, 2021, 36(4): 1-21.
- [6] 曹正汉. 传统公有制经济中的产权界定规则: 控制权界定产权[J]. 经济科学, 1998(3): 29-36.
- [7] 夏新华. 工具性的宪法和宪法的工具性: 以近代中国宪政历程为视角[J]. 社会科学家, 2004(1): 141-143.
- [8] 薛燕府. 我国渐进式改革的微观样本: 佛山市南海区的集体土地制度变迁[J]. 城市规划, 2024, 48(4): 95-103.
- [9] 科斯, 李风圣. 契约经济学[M]. 北京: 经济科学出版社, 1999.
- [10] LAPORTA R, LÓPEZ-DE-SILANES F, SHLEIFER A. Corporate ownership around the world[J]. Journal of Finance, 1999, 54(2): 471-517.
- [11] 赵晶, 郭海. 公司实际控制权、社会资本控制链与制度环境[J]. 管理世界, 2014(9): 160-171.
- [12] 汪丁丁. 从“交易费用”到博弈均衡[J]. 经济研究, 1995(9): 72-80.
- [13] 张维迎. 所有制、治理结构及委托—代理关系: 兼评崔之元和周其仁的一些观点[J]. 经济研究, 1996(9): 3-15.
- [14] 巴泽尔. 产权的经济分析[M]. 上海: 上海人民出版社, 1997.
- [15] 梁印龙. 城市更新中公共利益捕获与耗散的机制解释: 基于产权“公共领域”理论的租差优化模型[J]. 城市规划, 2023, 47(4): 86-92.
- [16] 魏立华, 刘玉亭, 黎斌. 珠江三角洲新农村建设的路径辨析: 渐次性改良还是彻底的重构[J]. 城市规划, 2010, 34(2): 36-41.
- [17] 周雪光. “关系产权”: 产权制度的一个社会学解释[J]. 社会学研究, 2005(2): 1-31.
- [18] 折晓叶, 陈婴婴. 产权怎样界定: 一份集体产权私化的社会文本[J]. 社会学研究, 2005(4): 43.
- [19] 张静. 土地使用规则的不确定: 一个解释框架[J]. 中国社会科学, 2003(1): 12.
- [20] 陈颀. 产权实践的场域分化: 土地发展权研究的社会学视角拓展与启示[J]. 社会学研究, 2021, 36(1): 203-225.
- [21] 梁印龙. 重构城市更新利益博弈机制: 一个土地发展权“产权差”的新视角[J]. 城市规划, 2024, 48(3): 46-54.
- [22] 谭庆刚. 双重转型中的乡镇企业[M]. 北京: 社会科学文献出版社, 2007.
- [23] 管兵. 农村集体产权的脱嵌治理与双重嵌入: 以珠三角地区 40 年的经验为例[J]. 社会学研究, 2019, 34(6): 164-187.
- [24] 朱一中, 王韬. 剩余权视角下的城市更新政策变迁与实施: 以广州为例[J]. 经济地理, 2019, 39(1): 56-63.
- [25] 严雅琦, 田莉, 郭旭. 基于“发展权—控制权”视角的大都市区乡村空间重构特征与机制研究[J]. 城市发展研究, 2024, 31(8): 96-103.

- [26] 严雅琦. 赋权的挑战: 北京集体经营性建设用地入市下的国土空间用途管制实施[J]. 城市规划学刊, 2024(4): 98-104.
- [27] 黄卫东, 李志兵, 杨瑞, 等. 存量产业空间转型中的政府作为与治理优化: 一个控制权的视角[J]. 城市规划学刊, 2025(3): 70-78.
- [28] 田莉, 夏菁. 土地发展权与国土空间规划: 治理逻辑、政策工具与实践应用[J]. 城市规划学刊, 2021(6): 12-19.
- [29] 林强, 李泳, 夏欢, 冯小红. 从政策分离走向政策融合: 深圳市存量用地开发政策的反思与建议[J]. 城市规划学刊, 2020(2): 89-94.
- [30] FAMA E F, JENSEN M C. Separation of Ownership and Control[J]. Journal of Law and Economics, 1983(26): 301-325.
- [31] 王秋婧. “资本空间化”视角下东莞村镇建设发展历史研究(1978-2008)[D]. 广州: 华南理工大学, 2018.
- [32] 赖亚妮, 吕亚洁, 秦兰. 深圳市 2010-2016 年城市更新活动的实施效果与空间模式分析[J]. 城市规划学刊, 2018(3): 86-95.
- [33] 张浩, 冯淑怡, 曲福田. “权释”农村集体产权制度改革: 理论逻辑和案例证据[J]. 管理世界, 2021, 37(2): 81-94.

Ai 辅助翻译