

Government Action and Governance Optimization in the Transformation of Existing Industrial Space: A Control-Rights Perspective

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Abstract. Against the backdrop of industrial upgrading and increasingly constrained land supply, the transformation of existing industrial space has become an important instrument through which local governments cultivate new quality productive forces and promote high-quality development. Yet the uneven distribution of redevelopment costs and benefits has generated divergent priorities and strategic tensions among different levels of government, making vertical coordination an urgent governance challenge. Drawing on control-rights theory, this article develops an extended analytical framework covering the entire redevelopment process - land preparation, development and construction, and supervision and management - and applies it to the cases of Suzhou, Foshan, and Dongguan. It examines the allocation of multiple control rights and the resulting governance models, and further analyzes their formation mechanisms, governance costs, and possible optimization pathways. The findings show that local administrative structures, transformation objectives, and transaction costs at different stages jointly shape diverse configurations of control rights and policy-tool choices, which in turn produce distinct governance costs and internal tensions. Local governments should therefore design control rights more precisely and differentially by location and land category, in line with their institutional conditions and development needs. Such refinement can optimize spatial governance, support the orderly transformation of existing industrial space, and sustain local economic development.

Keywords: existing industrial space; inefficient land redevelopment; control rights; spatial governance; government action.

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As the global scientific, technological, and industrial revolutions continue to unfold, rising geopolitical uncertainty and growing concern over supply-chain security are accelerating the restructuring of global production networks. Leading firms are moving toward vertical integration, major innovation actors are concentrating in top-tier cities, and small and medium-sized innovators are adopting more dispersed spatial strategies [1]. These shifts create opportunities for cities to attract emerging industries and innovative firms, upgrade their industrial structures, and sustain economic growth. At the same time, they impose new demands on industrial space: leading enterprises require large, development-ready sites with high environmental quality and complete supporting facilities, whereas smaller innovators need affordable, high-quality premises supported by efficient services.

As the supply of incremental land tightens and the redevelopment of inefficient land becomes a national priority, many Chinese cities have begun to transform existing industrial areas. Their objective is to reactivate underused industrial land, create higher-quality spatial carriers, and accommodate the needs of emerging industries. This process has attracted extensive academic attention. Early studies focused mainly on industrial-land transformation and planning responses [2-3]. Subsequent work used property-rights institutions and value-return mechanisms to explain policy change and institutional effects [4-5]. More recently, scholars have turned to bargaining over property rights and the distribution of gains among different actors, and have explored institutional and governance reforms [6-8]. Existing research, however, concentrates largely on

conflicts between government, original rights holders, and market actors. It pays insufficient attention to interaction within government and often treats the state as a single actor with a unified interest.

In practice, local governments are far from monolithic in the transformation of existing industrial space. Rising negotiation costs, mounting fiscal pressure, and uncertainty in industrial recruitment create different incentives at different administrative levels. Municipal governments often favor large-scale and concentrated redevelopment, through which contiguous land can be released, leading firms attracted, and high-quality industrial parks built. Grassroots governments, by contrast, tend to prefer smaller, dispersed, and incremental projects that reduce implementation difficulty, contain fiscal risk, and respond flexibly to market demand. These divergent priorities generate governance tensions and internal bargaining that profoundly affect redevelopment. They reflect the enduring contradiction between authoritative control and effective governance in the management of existing land [9]. Coordinating the interests of different government levels and optimizing vertical governance are therefore central to successful transformation.

How, then, can the internal 'black box' of government be opened? Cao Zhenghan [10] explains Chinese governance through a vertically divided system of rule, while Zhou Li'an [11] conceptualizes relations between higher- and lower-level governments as an administrative subcontracting system. Building on these insights, Zhou Xueguang [12] develops a theory of control rights that places authority relations and governance models within a unified micro-level framework. This article applies that theory to the transformation of existing industrial space. It asks how control rights are allocated within local government, what institutional mechanisms and cost differences underpin that allocation, and how more effective spatial co-governance can be achieved through a better distribution of authority.

The discussion proceeds as follows. Section 1 explains the relevance of control rights to spatial governance and develops an analytical framework tailored to industrial-space transformation. Section 2 examines the governmental roles, control-rights allocations, and governance models adopted in Suzhou, Foshan, and Dongguan, three representative manufacturing cities. Section 3 analyzes the formation mechanisms and governance costs of different configurations. Section 4 proposes pathways for improving local redevelopment mechanisms and vertical collaborative governance.

1 Analytical Framework: Allocating Control Rights in the Transformation of Existing Industrial Space

1.1 A Micro Perspective on Spatial Governance: From Property Rights to Control Rights

Property rights constitute a foundation of spatial governance. At the micro level, governance processes are shaped by how different actors interact over and divide property rights [13]. The concept has evolved from property control, to a bundle of rights, and finally to residual control rights. In Roman law, ownership was understood primarily as the owner's control over property. From the nineteenth century onward, this core was differentiated into possession, use, income, disposal, and other component rights, forming the 'bundle of rights' that became central to institutional economics [14]. With the development of the theory of the firm, scholars led by Oliver Hart drew on incomplete-contract theory to introduce residual control rights. Because real-world contracts are inevitably incomplete, property owners retain authority over matters not specified in the contract; the greater their control, the stronger their bargaining position and claim to residual returns [15]. Control rights are therefore both the foundation and the core of property rights, and they occupy a decisive position in bargaining and benefit distribution.

Under China's public land-ownership system, government retains substantive control over land and occupies the central position in spatial governance and the definition of property rights [16]. The allocation of

rights over incremental land has developed into a strict top-down authority structure. The central government initially allocates local land rights through spatial zoning, quota control, and plan management; local governments undertake secondary allocation through spatial plans and development permission; and the interaction of grassroots governments with original rights holders and market actors forms the final arena in which residual land returns are defined [17-19]. The redevelopment of existing land has broadly evolved from government-led action, to government-enterprise cooperation, and then to multi-actor coordination [20]. As urbanization advances and the property market weakens, the characteristics of new statism are changing: the central government has reclaimed certain control rights by setting demolition ratios and demolition-to-construction ratios for urban renewal, while local governments have strengthened overall coordination and the participation of state-owned enterprises, and private investment has contracted [21]. In this context, interaction and bargaining within government increasingly shape redevelopment outcomes. Improving vertical governance is essential if macro-level intentions are to be transmitted downward while implementation remains effective at the grassroots level.

Control-rights theory offers a useful micro-level explanation of internal governmental authority and interaction. Zhou Xueguang and colleagues [12] analogize higher- and lower-level governments to principal, manager, and agent, and decompose control into three dimensions: the right to set goals, the right to inspect and accept results, and the right to allocate incentives. By examining how these rights are distributed, they identify highly coupled, administrative-contracting, loosely coupled, and federal governance models, each with distinct behavioral implications (Table 1). Planning scholarship has increasingly adopted this framework to analyze spatial-interest bargaining, planning governance, and territorial spatial-use regulation [16, 22-24].

Table 1. Distribution of control rights within government and corresponding governance models [12]

Control-right category	Highly coupled	Administrative contracting	Loosely coupled	Federal
Goal-setting right	Principal	Principal or negotiated	Principal or negotiated	Manager
Inspection and acceptance right	Principal	Principal	Manager	Manager
Incentive-allocation right	Principal	Manager	Manager	Manager
Behavioral implication: central government	Campaign-style mobilization	Inspection and acceptance strategy	Symbolic authority	Absent
Behavioral implication: intermediate government	Loss of initiative; weakened effective governance	Escalation during implementation; collusion during acceptance	Principal role	Principal role
Overall tendency	Strong vertical linkage	Contract-based delegation	Loose linkage	Decentralized autonomy

1.2 Multiple Objectives and the Allocation of Control Rights in Industrial-Space Transformation

The transformation of existing industrial space refers to upgrading built industrial areas through demolition and reconstruction, improvement and retrofitting, or functional conversion in order to support industrial restructuring. For local governments, it is a major instrument for attracting and cultivating emerging industries and expanding fiscal revenue. The associated challenges, however, extend well beyond the initial redevelopment stage and run throughout the life cycle of land development, construction, and management.

At the front-end land-preparation stage, fragmented property rights and entrenched benefit structures on existing industrial land [25] require governments to manage owner expectations and redevelopment costs, promote consolidated and large-scale transformation, and release enough contiguous space to meet industrial-recruitment needs without excessively disrupting established competitive industries. At the intermediate development and construction stage, intense competition for investment requires precise adaptation to the needs of emerging industries and talent. Different developers must be guided to supply diverse, high-quality, specialized spatial products and supporting services, thereby improving both the effective supply of industrial space and a city's competitiveness in attracting investment. At the back-end supervision and management stage, governments must assess land-use performance, strengthen transfer and exit regulation, and ensure that land resources can be recovered and efficiently reallocated.

The central question is how control rights can be optimized so that municipal strategic intentions are reconciled with the implementation incentives of grassroots governments. Although industrial agglomeration and tax growth may appear to benefit all levels of government, redevelopment costs and returns are distributed unevenly. Municipal governments gain strategic flexibility from large-scale industrial-land reserves: they can use opportunity sites to attract emerging industries and expand aggregate output and tax revenue, while bearing relatively limited front-end costs. Grassroots governments, by contrast, must devote substantial labor and resources to surveys, demolition negotiations, industrial relocation, planning, and design. They also bear the risks of failed recruitment, the outflow of established firms, and declining local revenue, and may therefore become the de facto losers in the process.

Municipal governments must identify the core objectives of redevelopment in light of their own institutional conditions and then reallocate authority across stages and dimensions. Control may need to be reclaimed upward in some areas and delegated downward in others. The aim is to strengthen control over key factors, align incentives and benefits, mobilize grassroots governments, and create a more effective spatial-governance model.

1.3 An Extended Control-Rights Framework for Existing Industrial-Space Transformation

To represent the complex interactions and allocation patterns within government, this study adapts Zhou Xueguang's model of control rights to the specific context of industrial-space transformation. It integrates the local authority structure with the redevelopment process and constructs an extended analytical framework (Figure 1).

First, because municipal governments generally share the broad policy orientation of national and provincial authorities but may conflict with subordinate governments over costs and benefits, the scale of analysis is shifted downward from central-local relations to the administrative structure within the city. Municipal, district-level, and grassroots governments are mapped respectively onto the organizational roles of principal, manager, and agent, allowing vertical interaction and coordination within local government to be examined.

Second, in response to the complexity of redevelopment, the framework is extended across the entire process of land preparation, development and construction, and supervision and management. It focuses on six core elements: transformation area and transformation scale at the land-preparation stage; development model and construction quality at the development stage; and land-use performance and property-right transfer at the supervision stage.

Third, the control rights exercised by each government level are decomposed into the three dimensions of task setting, task assessment, and evaluation and incentives. The resulting control-rights matrix captures both

the overall governance model and the micro-configuration of authority in different cities, providing a basis for analyzing vertical interaction and directions for governance optimization.

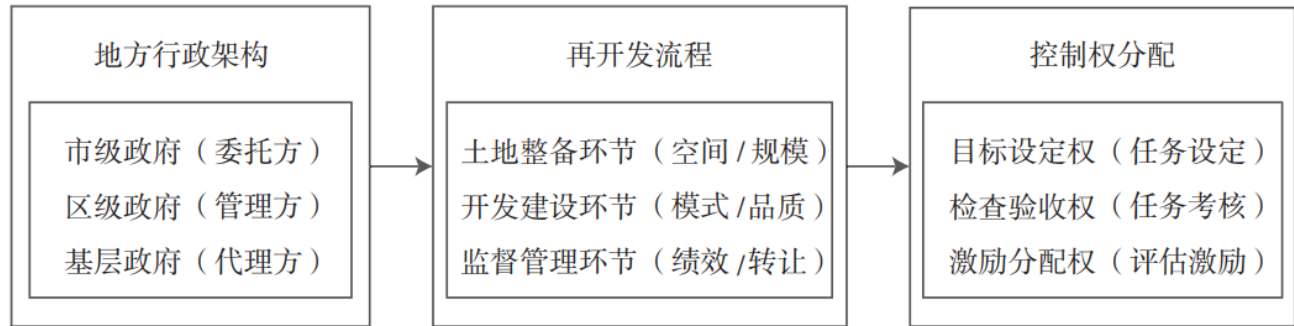


Figure 1. Extended analytical framework for control-rights allocation in the transformation of existing industrial space

2 Control-Rights Allocation and Governance Models in Representative Local Practices

The empirical analysis focuses on Suzhou, Foshan, and Dongguan, three representative industrial cities. Under the combined pressures of industrial restructuring and constraints on incremental land, all three launched citywide programs for the transformation of existing industrial space between 2018 and 2021. Yet differences in the historical formation of existing space, transformation objectives, administrative structures, and local governance have produced distinct redevelopment pathways, governance models, and implementation outcomes. The following analysis applies the extended control-rights framework to each case.

2.1 Suzhou: Improving Industrial-Land Quality and Efficiency through Administrative Contracting

2.1.1 Evolution and Transformation of Industrial Space

In the early reform period, Suzhou's development was driven mainly by collectively financed township and village enterprises, forming the well-known 'Southern Jiangsu model.' From the 1990s onward, municipal and county governments led the construction of contiguous industrial development zones to attract foreign investment. Large industrial parks, relatively complete infrastructure, and favorable tax and fee policies substantially strengthened investment competitiveness, while transfers of collectively owned construction land within the zones were tightly restricted.

From around 2010, Suzhou sought to attract and cultivate high-tech firms and talent and to restructure its economy. On the urban periphery, it planned major development platforms such as Eco-Science City, Taihu New City, and the High-Speed Rail New City. Upgraded administrative management and cross-district cooperation were used to consolidate large tracts of incremental land and create specialized new towns integrating industrial and urban functions. At the same time, districts vigorously developed small and medium-sized science and technology parks. District-owned state enterprises undertook development, construction, operation, and management and offered integrated research and development, incubation, pilot production, investment, and financing services tailored to thematic industries. These parks attracted large numbers of small and medium-sized technology firms [26].

Today, most of Suzhou's existing industrial space lies in development zones at or above the provincial level. These zones contain 64% of the city's industrial land and possess relatively complete road networks and infrastructure, but remain functionally monotonous, production-oriented, and generally low in development intensity. The average floor-area ratio of industrial land in Suzhou Industrial Park, for example, remains below

1.0. To improve intensive land use, enrich park functions, and safeguard the long-term development of the real economy, Suzhou launched its 'Double Hundred' Action in 2020. The program designated a protection line covering one million mu (666.7 km²) of industrial and production-related research land and required the renewal of 100 km² of industrial land within five years. After a three-year campaign, the city had reactivated 81.6 km² of existing land and redeveloped 69.1 km² of inefficient land by 2022, broadly achieving the program's initial targets.

2.1.2 Transformation Path: Administrative Contracting with Partial Delegation of Control Rights

Over time, Suzhou developed a relatively balanced power structure combining a strong municipal government with strong districts. Specialized tasks are often implemented through a contract-like administrative subcontracting system. Under the Double Hundred Action, the municipal government initiated the program and inspected key elements, while districts were authorized to refine targets and develop diverse incentives in accordance with local conditions. Functional zones② then implemented specific projects. The result was an administrative-contracting structure of 'municipal commissioning, district management, and functional-zone implementation.' As information and governance costs rose and district-level capabilities improved, however, control rights in some stages were partially delegated or dynamically adjusted, producing a more complex governance configuration.

(1) Land preparation: upward consolidation of spatial control and dynamic adjustment of scale targets

With respect to transformation area, the municipal government reclaimed spatial control in order to adapt to urban restructuring while safeguarding space for the real economy. It set a total target for the industrial and production-related research land protection line, required land within the line to remain primarily manufacturing-oriented after redevelopment, and guided industrial land outside the line toward gradual withdrawal (Figure 2). Districts and county-level cities delineated the line in detail according to local circumstances, after which the municipal government inspected and consolidated the results as the spatial bottom line for industrial transformation.

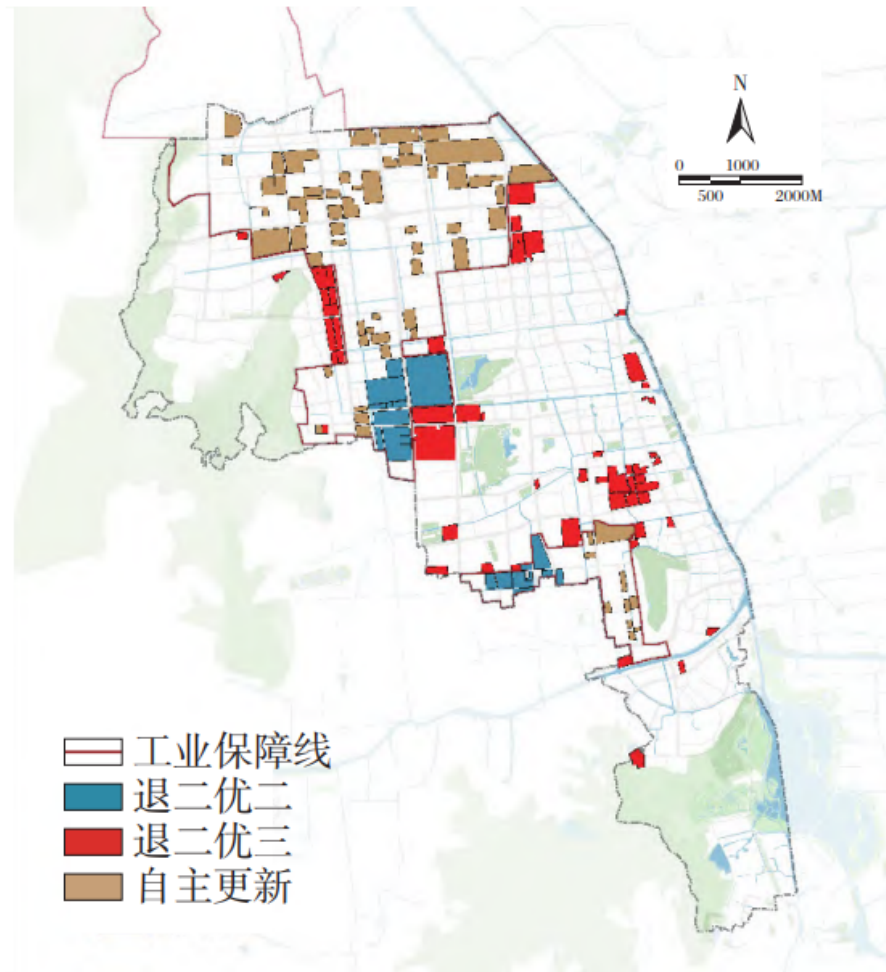


Figure 2. Transformation strategy for industrial space under Suzhou's industrial-land protection line

Source: Shenzhen Urban Planning & Design Institute, Special Urban Renewal Plan for the Shishan Business and Innovation District in Suzhou High-tech Zone, 2022.

Control over transformation scale changed dynamically from centralization to delegation. In the early phase of the Double Hundred Action, the municipal government set the overall scale target, allocated sub-targets to districts and county-level cities, and incorporated implementation into high-quality development assessments, creating a typical administrative-contracting arrangement. As the cumulative scale of redevelopment and the debt pressure of state-owned enterprises increased, the city relaxed inspection of scale targets and allowed districts and county-level cities to implement them more flexibly, producing a more loosely coupled mode. District governments then refined targets, assessment requirements, and incentives according to their own development needs.

Suzhou Industrial Park provides a representative example. Facing acute land constraints, it treated the Double Hundred Action as a high priority and issued a three-year campaign plan in 2021, setting a target of renewing 13.3 km² of industrial land. It commissioned a special plan, negotiated key areas and project schedules with functional zones, decomposed tasks across those zones, strengthened supervision and assessment, and provided financial rewards, financing support, and simplified approval procedures to mobilize participants and ensure implementation.

(2) Development and construction: delegated experimentation with development models and municipal control of baseline construction requirements

For development models, the municipal government played mainly a symbolic and enabling role, encouraging market participation through policy while leaving specific choices to districts and, in some cases, functional zones. District governments experimented with state-owned-enterprise models by channeling capital and technical resources through district-owned firms to safeguard development and operational quality. Suzhou Industrial Park, for example, established a specialized urban-reconstruction company responsible for the acquisition and redevelopment of inefficient land, customized development of industrial premises, community facilities, asset management, and park operation. Districts also used financial rewards to encourage joint redevelopment by multiple actors and thereby promote contiguous transformation.

For construction quality, the municipality controlled baseline indicators. Policies for improving industrial-land quality and efficiency set minimum or maximum requirements for floor-area ratios, supporting-facility shares, building density, and green-space ratios. The city also retained final approval authority over amendments to detailed regulatory plans, preventing projects from breaching planning bottom lines. District governments further specified development standards, strengthened approval of implementation schemes and project acceptance, and guided the construction of high-quality industrial space.

(3) Supervision and management: guiding targets and enabling instruments for post-supply regulation

To avoid high information and monitoring costs in land-performance evaluation and property-right transfer, the municipal government played a guiding and supportive role. It set broad objectives, including full life-cycle management of industrial land, evaluation of intensive resource use, differentiated management, stronger regulation of the secondary land market, and encouragement for districts and county-level cities to use state-owned platforms to acquire existing industrial land. It also supplied governance instruments, such as a comprehensive evaluation system for industrial-enterprise resource use, model provisions for investment and development supervision agreements, and a secondary market platform for construction-land transactions.

District governments then implemented more refined regulation. They specified industrial-entry and enterprise-evaluation standards to match local industrial conditions; signed investment and development supervision agreements that defined project-specific requirements and remedies for breach; and applied both positive and negative incentives. Projects that introduced high-quality firms, generated above-target tax revenue, or upgraded industrial functions could receive additional financial rewards. Poor-performing projects were pressured through differentiated electricity and gas pricing and differentiated regulatory enforcement.

Table 2. Control-rights matrix for the transformation of existing industrial space in Suzhou

Control right	Land preparation		Development and construction		Supervision and management	
	Transformation area	Transformation scale	Development model	Construction quality	Land-use performance	Property-right transfer
Target-setting right	Municipal government	Municipal government	Municipal government	Municipal government	Municipal government	Municipal government
Inspection and acceptance right	Municipal government	Municipal/district government	District government	Municipal government	District government	District government

Control right	Land preparation		Development and construction		Supervision and management	
	Transformation area	Transformation scale	Development model	Construction quality	Land-use performance	Property-right transfer
Incentive-allocation right	District government	District government	District government	District government	Municipal/district government	Municipal/district government

Note: In Suzhou, 'district government' includes county-level city governments, district governments, and the administrative committees of Suzhou Industrial Park and Suzhou High-tech Zone.

2.2 Foshan: Loosely Coupled Governance in the Upgrading of Village Industrial Parks

2.2.1 Evolution and Transformation of Industrial Space

Foshan's existing industrial space is the product of both bottom-up and top-down forces. In the early reform period, the township economy expanded rapidly and village-based industrial parks spread in a dispersed pattern. During the 1990s, with provincial support, Foshan promoted property-rights reform in township and village enterprises, enabling many leading firms to grow. Government-led industrial development zones were built to meet the needs of leading enterprises and their suppliers. At the same time, the rapid expansion of the private economy and the reform of rural shareholding cooperatives facilitated the transfer and consolidation of collectively owned land, producing explosive growth in village industrial parks [27].

After 2003, Foshan tightly restricted the establishment of new industrial parks at village level and promoted more intensive industrial districts. The national high-tech zone was used to integrate district-level platforms into a 'one zone, five parks' structure. The city later expanded innovation platforms such as Sanlong Bay Science and Technology City and Foshan North Strategic Emerging Industry Park to meet the need for higher-end, larger-scale, and more intelligent industrial development.

Despite these efforts, village industrial parks still occupy an unusually large share of Foshan's industrial land. Their total area reaches 245 km², more than half of all existing industrial land, and fragmentation and inefficiency remain severe. In Nanhai District, for example, 43% of village industrial parks are smaller than 6.7 ha, their average floor-area ratio is only 0.49, and 44% of industrial land contributes only 10% of industrial output [28]. To overcome these weaknesses, release development space, and attract innovative resources and high-tech firms from the Greater Bay Area, Foshan issued the Implementation Plan for the Improvement and Upgrading of Village Industrial Parks (2018-2020) in 2018. By the end of 2023, the city had completed 213 km² of village-industrial-park transformation, with more than 33 million m² of new or ongoing industrial premises and a number of advanced manufacturing projects.

2.2.2 Transformation Path: Empowering Strong Districts while Rigidly Assessing Scale

Foshan's administrative structure is strongly decentralized. Shunde, Nanhai, Sanshui, and Gaoming were converted from county-level cities into districts in 2002. Although some powers were reclaimed upward, they retained substantial autonomy in local economic and social development. Shunde and Nanhai, as provincial reform and innovation pilot areas, enjoy particularly strong administrative and fiscal authority. In the complex upgrading of village industrial parks, the municipal government therefore played mainly a guiding role: it initiated special actions and set broad directions, while granting strong districts considerable room for experimentation. District governments coordinated overall programs and guided towns and subdistricts in implementation, forming a loosely coupled structure of 'municipal guidance, district coordination, and town/subdistrict implementation.'

(1) Land preparation: flexible guidance of transformation areas and rigid assessment of transformation scale

For transformation areas, the municipality relied mainly on directional guidance. Its Measures for Delineating Industrial Development Protection Areas and Managing the Urban Brown Line strengthened land-use control over existing industrial land within industrial development protection areas and encouraged priority redevelopment of village industrial parks inside those areas. District governments then used the protection-area framework to prepare special plans and identify key transformation zones. Shunde, for example, delineated 20 industrial clusters and 30 thematic industrial parks and proposed differentiated approaches including upgrading, land banking and redevelopment, and reclamation and greening (Figure 3) [29].

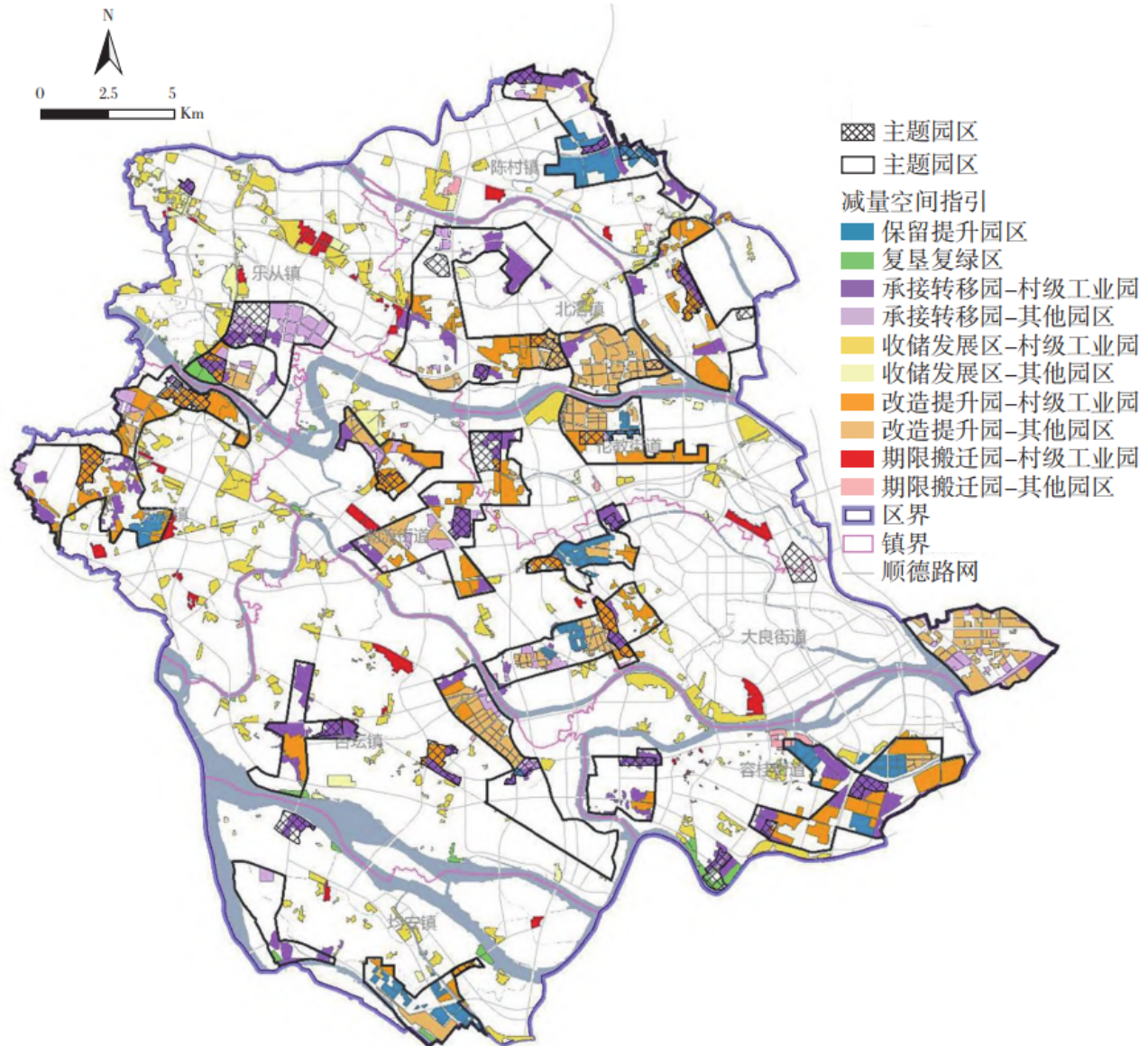


Figure 3. Classification guidance for transforming village industrial parks in Shunde District, Foshan [29]

For transformation scale, the municipal government strengthened target setting and inspection. The 2018-2020 implementation plan specified the citywide scale and district-level quotas and incorporated annual completion into cadre assessment and the municipal performance-management system. Districts then developed local plans and incentives on the basis of allocated tasks. Shunde treated village-industrial-park

transformation as its 'number one project,' increased its own demolition targets beyond the municipal assignment, allocated tasks to towns and subdistricts, tied them closely to cadre evaluation, and deployed public officials to front-line projects. Taking advantage of its designation as a provincial pilot area for institutional reform and high-quality development, Shunde developed a comprehensive package of supportive policies covering project recognition, relocation enforcement, land consolidation, subsidies and rewards, and coordination between primary and secondary land development.

(2) Development and construction: delegated exploration of multiple models and multi-dimensional guidance of construction quality

The municipal government encouraged participation by government, original rights holders, and market actors but left districts to experiment with specific redevelopment models. District governments further delegated operational discretion to towns and subdistricts, which responded flexibly to the demands of village collectives and rights holders. Over time, Foshan developed ten models, including deferred land banking, direct expropriation, government master leasing and management, and long-term enterprise leasing and self-management. This diversity significantly accelerated village-industrial-park transformation.

To ensure that transformed space met the needs of emerging industries, the municipal government set baseline acceptance standards for environmental protection, fire safety, production safety, territorial planning, housing, and urban-rural construction. District governments then refined construction standards according to local industrial and park-development objectives. Shunde developed detailed requirements for aesthetics, intelligence, ecology, safety, and human-scale design, using them as approval criteria throughout planning, design, construction, and investment recruitment. A district joint-review meeting system brought relevant departments together to evaluate park plans and construction proposals.

(3) Supervision and management: stronger goal guidance and grassroots authority over post-supply regulation

In land-performance evaluation and property-right transfer, the municipality again relied primarily on goal guidance. It required districts to strengthen project assessment and supervision, sign performance supervision agreements with developers, and evaluate land-use efficiency after supply. Districts then specified post-supply requirements, including positive and negative lists for industrial recruitment, minimum investment and tax intensity, and rules for land and factory leasing. Town and subdistrict governments were authorized to sign investment, development, and construction agreements with developers, defining investment, tax contributions, eligible lessees or buyers, and liability for breach. District-level agencies led subsequent performance evaluation and follow-up supervision.

Table 3. Control-rights matrix for the transformation of existing industrial space in Foshan

Control right	Land preparation		Development and construction		Supervision and management	
	Transformation area	Transformation scale	Development model	Construction quality	Land-use performance	Property-right transfer
Target-setting right	Municipal government	Municipal government	Municipal government	Municipal government	Municipal government	Municipal government
Inspection and acceptance right	District government	Municipal government	District government	District government	District government	District/town-subdistrict government

Control right	Land preparation		Development and construction		Supervision and management	
	Transformation area	Transformation scale	Development model	Construction quality	Land-use performance	Property-right transfer
Incentive-allocation right	District government	District government	District government	District government	District government	District government

2.3 Dongguan: Centralized Governance for the Contiguous Preparation of Town and Village Industrial Parks

2.3.1 Evolution and Transformation of Industrial Space

Compared with Foshan, Dongguan's industrial space has an even more pronounced bottom-up supply structure [30]. In the early reform period, village groups used their proximity and lineage ties to Hong Kong to attract Hong Kong-funded factories, producing the so-called 'three halls' economy based on canteens, ancestral halls, and assembly halls. From the 1990s onward, towns and villages adopted a low-cost and highly efficient 'land-leasing model' to host the production activities of foreign firms. Large town and village industrial parks emerged and supported Dongguan's economic takeoff, but also generated disorderly expansion and the intermixing of factories and settlements.

After 2008, the municipal government sought to capture the spillover of high-tech firms and talent from Shenzhen and to promote industrial upgrading. It successively developed high-tech parks such as Songshan Lake Science and Technology Industrial Park, Dongguan Eco-Industrial Park, and Chang'an New Area, and built several large municipal industrial new towns along city boundaries and at town interfaces. At the same time, it reclaimed authority over the supply of collectively owned land and tightly restricted further expansion of village industrial parks.

As land-development intensity approached its limit and incremental land became scarce, town and village industrial parks - which account for 81% of Dongguan's industrial land - became the city's principal reserve for expanding industrial space and attracting emerging industries. Beginning in 2021, Dongguan planned seven strategic emerging-industry bases, ten standardized industrial areas, and 60 modern industrial parks. Through municipal-town collaboration, it sought to combine incremental land banking with the redevelopment of inefficient industrial land, prepare contiguous sites, and create high-quality industrial carriers. By 2023, 5.3 km² of contiguous industrial space had been prepared, providing important spatial support for attracting leading enterprises. Existing work, however, has focused mainly on incremental development and the activation of undeveloped existing land; the transformation of old factories remains comparatively slow.

2.3.2 Transformation Path: Centralized Governance Focused on the Front and Middle Stages

Dongguan differs from Suzhou and Foshan in having a distinctive two-tier municipal-town structure. The municipal government directly faces 34 town-level administrative entities, greatly increasing communication and coordination costs. Although towns and subdistricts possess some county-level administrative powers, their staffing and governance capacity remain weaker than those of district or county governments. To ensure that municipal objectives are implemented, achieve large-scale land preparation, and build high-quality industrial parks, the municipality reclaimed control over land preparation and development and construction. It strengthened target guidance and inspection, supplied incentives, and directed town-level implementation, forming a centralized structure of 'municipal guidance and town implementation.'

(1) Land preparation: detailed spatial control and rigid transformation-scale tasks

To secure the concentrated construction of large industrial parks, the municipal government conducted citywide surveys and coordinated planning to determine the specific transformation boundaries of parks in each town and subdistrict (Figure 4). The boundaries were fixed after negotiation with town governments. The city then set hard annual targets for the transformation of old industrial land within the parks, made them a major component of leadership-team assessments, increased their weighting, and introduced ranking competition. Financing support through special loans and bonds, higher maximum industrial floor-area ratios, priority land quotas, and simplified approvals further strengthened town-level incentives.

Figure 4. Delineation of modern industrial parks in Dongguan

For development models, the municipality further centralized control to ensure that government retained sufficient land resources. Its modern-industrial-park policy introduced a 'three one-thirds' arrangement: one-third of land would be acquired and prepared by government as development-ready industrial land; one-third would be jointly transformed by village collectives and municipal or town state-owned enterprises into low-cost industrial space; and one-third could be transformed by market actors into high-standard factories. To motivate town-led redevelopment, municipal state-owned enterprises were mobilized to provide capital for land preparation and cooperate with towns in park development; these projects were classified as government-led.

For construction quality, the municipality issued integrated park-planning guidelines that specified functional proportions and layouts, facility categories and provision standards, affordable-housing requirements, urban-design principles, and road-network density. Municipal departments provided detailed guidance and reviewed and approved planning proposals, thereby safeguarding the overall spatial quality of each park.

(3) Supervision and management: empowering towns to evaluate performance and regulate post-supply use

Dongguan concentrated municipal attention on land preparation and development and construction, while exercising comparatively limited control over back-end supervision. Town and subdistrict governments therefore used citywide standards and local conditions to define investment intensity, output per mu, and tax intensity; signed investment supervision agreements with developers or resident firms; specified liability for breach; evaluated land-use performance; and regulated subleasing and transfer. These measures were intended to ensure the efficient use of industrial land.

Table 4. Control-rights matrix for the transformation of existing industrial space in Dongguan

Control right	Land preparation		Development and construction		Supervision and management	
	Transformation area	Transformation scale	Development model	Construction quality	Land-use performance	Property-right transfer
Target-setting right	Municipal government	Municipal government	Municipal government	Municipal government	Town/subdistrict government	Town/subdistrict government
Inspection and acceptance right	Municipal government	Municipal government	Municipal government	Municipal government	Town/subdistrict government	Town/subdistrict government
Incentive-allocation right	Municipal government	Municipal government	Municipal government	Municipal government	Town/subdistrict government	Town/subdistrict government

3 Formation Mechanisms and Governance Costs of Control-Rights Allocation

The comparison of Suzhou, Foshan, and Dongguan reveals sharply different configurations of control rights and governance models. This section asks which factors produce those differences, how they affect the allocation of authority, and what governance costs and outcomes result.

3.1 Strategies of Control-Rights Allocation under Multiple Influences

3.1.1 Initial Allocation Shaped by Local Administrative Structures

Differences in administrative structure and governance capacity create pronounced path dependence in local implementation and deeply affect the initial allocation of control rights. Suzhou's relatively balanced combination of a strong municipal government and strong districts readily supports an administrative-contracting model: the city retains target-setting and inspection rights over core tasks, while delegating incentive allocation and granting districts room for initiative. Foshan's highly decentralized and internally uneven district structure encourages a loosely coupled model in which strong districts receive extensive pilot authority, including inspection and incentive rights, to advance village-industrial-park transformation. Dongguan's municipal-town structure, by contrast, favors centralized governance in the current round of transformation. To transmit municipal intentions effectively, control rights are reclaimed upward and grassroots governments are directed to implement redevelopment and build high-quality industrial space.

3.1.2 Secondary Allocation Guided by Transformation Objectives

Control rights are further redistributed according to differences in industrial development stage, the character of existing space, and the principal transformation objective. Suzhou still has substantial incremental land available for major strategic projects and is therefore less dependent on the scale of existing-land redevelopment. It places greater emphasis on post-transformation quality and land-use performance. The municipality sets goals throughout the process but focuses especially on planning approval and post-supply regulation, while allowing flexibility in the inspection of transformation scale.

Foshan confronts a vast stock of fragmented and hazardous village industrial parks and therefore prioritizes transformation scale and spatial release. The municipality centralizes control over scale and makes it a core assessment item, while allowing districts to experiment with multiple models that can accelerate implementation. Dongguan seeks to overcome fragmentation produced by multiple interests and to build high-quality industrial platforms through contiguous redevelopment. It therefore centralizes authority over land preparation and development and construction, converts objectives into direct assessment tasks, and provides incentives to guide town-level implementation.

3.1.3 Final Allocation Constrained by Transaction Costs at Different Stages

Across all three cities, the degree of control-rights concentration declines from land preparation to development and construction and then to supervision and management. This pattern reflects transaction costs. At the land-preparation stage, the municipal government's principal counterparts are district or town governments. At the development stage, they are project developers. At the supervision stage, the counterparts become the very large number of users occupying industrial space. As the number of actors grows, information acquisition, communication, and coordination become more difficult, and governance costs rise sharply. Municipal governments must therefore delegate authority appropriately and rely on territorially based governance by subordinate governments to address diverse and complex demands more effectively.

3.2 Differences in Governance Costs Produced by Control-Rights Allocation

3.2.1 The Effect of Allocation Patterns on Governance Costs

Governance costs not only constrain the allocation of control rights; the chosen allocation also generates different costs. In general, greater concentration makes it easier to implement governance objectives, but it requires the municipal government to confront more actors and issues and therefore raises coordination and administrative costs.

Under centralized governance, interaction across government levels is highly sensitive. This facilitates the top-down transmission of municipal objectives but produces high coordination costs and can suppress grassroots initiative, weakening the ability to solve local problems [11]. Centralization is therefore best reserved for core stages and projects of major strategic significance. Under administrative contracting, higher-level government assesses key elements while authorizing grassroots experimentation. This reduces governance costs and increases local initiative, but implementation may be distorted by tactical adaptation or collusion during inspection and acceptance. The model is most suitable for important but readily measurable elements, such as transformation scale and construction indicators.

Under loosely coupled governance, delegating inspection and incentive rights greatly reduces municipal costs but increases the risk that objectives will drift. It is therefore more appropriate for general stages in which the cost of inspection is high. In practice, municipal governments should distribute authority more

precisely around core objectives: control over crucial stages and major projects should be centralized, while ordinary stages should be delegated, balancing effective implementation with overall cost control.

3.2.2 Micro-Level Effects of Policy-Tool Choice on Governance Costs

Beyond the overall allocation pattern, the specific instruments through which control rights are exercised also strongly affect costs and performance. Suzhou and Dongguan both retain municipal inspection authority over transformation space, but their instruments differ. Suzhou uses a baseline protection-line constraint: any site within the industrial protection line can, in principle, undertake an industrial-to-industrial redevelopment project, preserving considerable locational flexibility. Dongguan, by contrast, specifies park boundaries of roughly 3 km², sharply narrowing the range of eligible projects. Such detailed spatial control inevitably increases tensions and costs between government levels. Policy-tool choice therefore determines the intensity of control and the governance burden it generates.

Supportive and incentive-oriented instruments can guide implementation without significantly increasing governance costs. Examples include Suzhou's comprehensive enterprise-evaluation platform, the downward deployment of resources by local state-owned enterprises, and market-oriented operation. Such instruments help implement higher-level objectives while creating a more flexible governance structure.

Table 5. Comparison of major municipal control instruments in the transformation of existing industrial space in Suzhou, Foshan, and Dongguan

Redevelopment stage	Control object / instrument	Suzhou	Foshan	Dongguan
Land preparation	Transformation area	Baseline control through the industrial-land protection line	Guidance through industrial development protection areas	Control through designated park redevelopment boundaries
Land preparation	Transformation scale	Assessment of three-year transformation tasks	Assessment of annual transformation tasks	Assessment of annual transformation tasks
Development and construction	Development model	Districts authorized to explore multiple models	Districts authorized to explore multiple models	Government-led share controlled; municipal SOEs mobilized
Development and construction	Construction quality	Planning baseline indicators	Park acceptance-standard guidance	Integrated park-plan approval
Supervision and management	Land-use performance	Comprehensive evaluation system for industrial enterprises	Districts authorized to conduct performance evaluation	Towns/subdistricts authorized to conduct performance evaluation
Supervision and management	Land/property transfer	Basic contents of supervision agreements; secondary construction-land market platform	Districts authorized to sign supervision agreements	Towns/subdistricts authorized to sign supervision agreements

4 Policy Recommendations and Prospects

This study develops an extended control-rights framework for the entire process of land preparation, development and construction, and supervision and management, and applies it to three representative cities. By examining patterns of control-rights allocation, their formation mechanisms, and governance costs, it provides a new perspective on interaction within government under conditions of stock-based urban development.

Local governments should design control-rights configurations and policy instruments in light of their administrative structures, specific transformation objectives, and the governance costs of different stages. Objectives should not be overgeneralized. Authority over the most critical goals should be reclaimed upward to ensure that municipal strategic intentions are implemented, while discretion in other stages should be delegated to mobilize grassroots initiative and reduce overall governance costs.

Governance capacity and transformation objectives also vary across areas within the same city. More refined spatial differentiation and control-rights design are therefore needed. Differentiated policy packages should be matched to local characteristics and task requirements: control may be centralized in a limited number of major strategic areas, while ordinary areas receive greater discretion. Such an approach can reconcile differences among government levels, build consensus around development, align incentives, and support the continuing transformation of existing industrial space.

For practical policy design, the extended framework offers a whole-process tool for policy design, evaluation, and optimization. It can clarify allocation schemes under different objectives and administrative structures, evaluate existing policies, identify bottlenecks in implementation and governance, and support targeted policy improvement. In this way, it can contribute to better spatial-governance arrangements and stronger local governance capacity.

Several limitations should be noted. Owing to space constraints, the article provides a static typological comparison of representative cities. In practice, the allocation of control rights is not fixed. As redevelopment objectives and governance costs change, authority will evolve dynamically. Moreover, control-rights allocation is shaped not only by authority relations within government; original land-rights holders and market actors also play important roles. How control rights are distributed and transformed under multi-actor interaction requires further research.

Notes

- ① For intuitive understanding and horizontal comparison, this article uses the terms centralized governance, administrative-contracting governance, and loosely coupled governance as abbreviated labels for the highly coupled, administrative-contracting, and loosely coupled modes respectively.
- ② In recent years, Suzhou has promoted grassroots governance reform by creating functional-zone administrations between districts and subdistricts. These bodies integrate fiscal, construction, and economic-development authority formerly dispersed among subdistricts and have become grassroots actors for economic development. Existing subdistrict offices are gradually returning to social-service functions, producing a dual-track separation between economic and social governance.

References

- [1] TANG Jie, GUO Wanda, FANG Yu. The hard truth of the new era: Guangdong's search for high-quality development [M]. Guangzhou: Guangdong People's Publishing House, 2024. [in Chinese]

- [2] LI Dongsheng, CHEN Bingzhao. Strategies for renewing industrial land in Shanghai's old Yangpu industrial district: from 'Industrial Yangpu' to 'Knowledge Yangpu' [J]. Urban Planning Forum, 2005(1): 44-50. [in Chinese]
- [3] HUANG Weidong, ZHANG Yuxian. Planning responses in rapidly evolving, market-led areas: the case of Huaqiangbei, Shenzhen [J]. City Planning Review, 2010, 34(8): 67-72. [in Chinese]
- [4] FENG Li, TANG Zilai. Renewal of administratively allocated industrial land from a property-rights perspective: the case of Hongkou District, Shanghai [J]. Urban Planning Forum, 2013(5): 23-29. [in Chinese]
- [5] HU Yingjie, LYU Bin. Benefit-return mechanisms and their performance in the renewal of industrial land in China [J]. Urban Development Studies, 2016, 23(4): 61-66. [in Chinese]
- [6] LI Dong, SUN Dongqi. Interest bargaining and governance innovation in industrial-land renewal: the case of Shunde District, Foshan [J]. Economic Geography, 2021, 41(3): 192-201. [in Chinese]
- [7] LIANG Ying, ZENG Peng. Evolution of the distribution mechanism for value increments in the renewal of existing industrial land in Beijing [J]. Urban Planning Forum, 2023(1): 69-73. [in Chinese]
- [8] HUANG Weidong, LIN Chenfang, ZHAO Ruoyan, et al. Governance innovation in urban renewal [M]. Beijing: China City Press, 2023. [in Chinese]
- [9] ZHOU Xueguang. The institutional logic of governance in China: an organizational approach [M]. Beijing: SDX Joint Publishing Company, 2017. [in Chinese]
- [10] CAO Zhenghan. China's vertically divided governance system and its stabilizing mechanism [J]. Sociological Studies, 2011, 25(1): 1-40. [in Chinese]
- [11] ZHOU Li'an. Local government in transition: official incentives and governance [M]. Shanghai: Truth & Wisdom Press, 2008. [in Chinese]
- [12] ZHOU Xueguang, LIAN Hong. Governance models of the Chinese government: a theory of control rights [J]. Sociological Studies, 2012, 27(5): 69-93. [in Chinese]
- [13] WU Xiaolin. The property-rights logic of grassroots urban governance: an analysis based on 'property-right type-allocation process' [J]. CASS Journal of Political Science, 2024(3): 155-167. [in Chinese]
- [14] XU Chenggang. Property rights and institutional genes [EB/OL]. (2022-01-03) [2024-12-10]. <https://www.aisixiang.com/data/130690.html>. [in Chinese]
- [15] GROSSMAN S. J., HART O. D. The costs and benefits of ownership: a theory of vertical and lateral integration [J]. Journal of Political Economy, 1986, 94(4): 691-719.
- [16] YAN Yaqi. The challenge of empowerment: implementing territorial spatial-use regulation under the market entry of collectively owned commercial construction land in Beijing [J]. Urban Planning Forum, 2024(4): 98-104. [in Chinese]
- [17] TIAN Li, XIA Jing. Land development rights and territorial spatial planning: governance logic, policy instruments, and practical applications [J]. Urban Planning Forum, 2021(6): 12-19. [in Chinese]
- [18] YANG Ling, LIN Jian. China's land-use plan management system: evolution, logic, and prospects [J]. Urban Planning Forum, 2024(4): 18-24. [in Chinese]
- [19] CHEN Qi. Field differentiation in property-rights practice: extending the sociological perspective on land development rights [J]. Sociological Studies, 2021, 36(1): 203-225. [in Chinese]
- [20] WANG Jia, BAI Yunxi, SONG Jusheng. The evolution, challenges, and policy recommendations of urban renewal in China [J]. Planners, 2021, 37(24): 21-27. [in Chinese]
- [21] TIAN Li, YAO Zhihao, YU Jianghao, et al. Evolution and transformation of urban-renewal planning in China: an analytical framework of government-market-society relations [J]. Planners, 2024, 40(2): 1-7. [in Chinese]

- [22] GUO Xu. Governance of reducing existing construction land in developed regions: a new analytical framework for spatial governance [J]. *City Planning Review*, 2020, 44(1): 52-62. [in Chinese]
- [23] WANG Zhoulin, CHEN Weizhen. Governance mechanisms and models in territorial spatial planning: a control-rights perspective [J]. *Urban Development Studies*, 2021, 28(6): 50-57. [in Chinese]
- [24] LIANG Yinlong. Reconstructing the benefit-bargaining mechanism of urban renewal: a new perspective based on the 'property-rights differential' in land development rights [J]. *City Planning Review*, 2024, 48(3): 46-54. [in Chinese]
- [25] LIANG Yinlong. The land-use dilemma in peri-urban areas and possible solutions: the cases of Jiangyin and Shunde [J]. *City Planning Review*, 2014, 38(1): 85-90. [in Chinese]
- [26] LIANG Yinlong, SUN Zhongya, XU Jing. The 'park within a development zone' model of development-zone transformation and innovation: evidence from science and technology industrial parks in Jiangsu Province [J]. *Modern Urban Research*, 2019(12): 40-46. [in Chinese]
- [27] TIAN Li. A regional comparison of land use in China's peri-urban areas: spatiotemporal patterns and formation mechanisms [M]. Beijing: China Architecture & Building Press, 2015. [in Chinese]
- [28] LIANG Xiaowei, YUAN Qifeng, LI Shenglin, et al. The dilemma of upgrading village industrial parks in Nanhai District from the perspective of land development rights [J]. *Development of Small Cities & Towns*, 2024, 42(2): 110-117. [in Chinese]
- [29] CAI Lifu, HE Jihong, LIANG Xiongfei, et al. Whole-cycle supervision strategies for transforming existing inefficient industrial parks: the upgrading of village industrial parks in Shunde District, Foshan [J]. *Planners*, 2021, 37(6): 45-49. [in Chinese]
- [30] LIN Huihuang, CHEN Jing. Initial industrial forms and land-development models: evidence from the Pearl River Delta [J]. *Journal of Beijing University of Technology (Social Sciences Edition)*, 2021, 21(2): 39-50. [in Chinese]

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