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New land reserve institution and changing entrepreneurial urban governance in China

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ABSTRACT

Existing studies suggest that land financing has given rise to entrepreneurial governance in China because local governments act like entrepreneurs to capture land value appreciation. However, the new land reserve institution has recently forbidden local governments from using land as collateral and centralized the financial management of land reserve projects. Given this profound change in land institutions, we ask whether local governments have become less entrepreneurial. This paper investigates the Shanghai Land Reserve Centre. The funding restriction and declining land profitability make it more challenging to generate land revenue. However, the local government is now adapting to the new land reserve institution, developing new entrepreneurial tactics, and treating land investment as a recurrent income stream. Facing the conjuncture of alarming local government debts, recentralizing state control, and structural limits of land finance, local governments' entrepreneurial stance is not eliminated, but their entrepreneurial practices are reshaped. Theoretically, this paper contributes to understanding how urban entrepreneurialism evolves in response to changing political and economic conjunctures.

1. Introduction

The literature has widely used urban entrepreneurialism to explain urban entrepreneurial-like practices in China (Chien, 2013; He et al., 2018; Shin, 2009; Wu, 2003, 2018; Yang & Wang, 2008). Land is the pivotal resource controlled by the local state to fulfill entrepreneurial goals (Shin, 2009; Wu, 2018). Entrepreneurial governance is expressed mainly by land incentives through capturing land revenue and implementing land development tactics, such as new-town development, mega-urban projects, and even green projects (Shen & Wu, 2017; Su, 2015; Wang & Wu, 2019). These practices reflect the innovative use of land at the local level to maximize land revenue and promote local development (Lin, 2014; Lin and Ho, 2005; Su & Tao, 2017). However, the most recent transformation of the land reserve system has altered the management of land quotas and land sales, particularly from a financial perspective. The central state initiates the new land reserve institution to deal with land-related financial risks, which profoundly impacts local entrepreneurial governance. This paper aims to illustrate the ongoing changes in managing land reserve projects and examine the implications for urban governance in China.

Engaging with the literature on transforming urban entrepreneurialism (Lauermann, 2018; Peck & Whiteside, 2016; Phelps & Miao, 2020; Wu, 2020), this research develops a framework for understanding changing urban governance: conjunctures, incentives, and tactics. We first position the new land reserve institution in its context to illustrate the conjuncture of combating financial risks and central-local tensions. Then, this research investigates the impacts on land tactics and the implications for entrepreneurial incentives based on practices in Shanghai. Previous studies believed local governments used land collateral to finance urban infrastructures and boost the local economy (Su & Tao, 2017; Wu, 2003). However, under the new land reserve institution, local governments cannot use the land as collateral to seek funding for land reserve projects. As a result, local governments become more cautious about land development plans and projects. We also find the structural limit of entrepreneurialism featuring the declining profitability of land reserve projects. The new land reserve institution and structural limits of land finance led to the reconstruction of the local entrepreneurial incentive. Hence, the Shanghai government modifies its incentive to use the land to generate a recurrent stream of investment rather than one-off transactions. Meanwhile, previous entrepreneurial motivation featuring land revenue maximization persists because of path-dependent legacies. Based on the case of Shanghai, this research illustrates how entrepreneurialism has evolved with changing tactics and incentives in China in a changing conjuncture.

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This research is organized as follows. The next section reviews the literature on entrepreneurialism and its transformation in recent studies. This is followed by a literature review of urban entrepreneurialism in China and its reliance on land-centered tactics. The methodology section illustrates case selection and research methods. In the empirical study, this paper first positions the new land reserve institution in the conjuncture of dealing with local financial risks through central interference. It then focuses on the impacts on land reserve practices in Shanghai and the implications for urban governance. The conclusion section discusses all the findings.

2. Urban entrepreneurialism under transition

Urban entrepreneurialism has been applied in urban studies for decades since the seminal research by Harvey (1989). Nevertheless, the conditions and modalities of urban entrepreneurialism have drastically changed. A rising body of literature revisits the adaptivity of entrepreneurialism in urban research across regions and highlights the transition and variegated forms of urban entrepreneurialism (Lauermann, 2018; Phelps & Miao, 2020; Roth et al., 2023; Thompson et al., 2020). The changing global conjuncture has posed new challenges to previously routinized urban entrepreneurialism. In response, local governance featuring entrepreneurialism transforms. We review the literature on urban entrepreneurialism to foreground three interrelated parameters in analyzing the transformation of urban entrepreneurialism: conjunctures, governance incentives, and governance tactics (Fig. 1).

Urban entrepreneurialism must be contextualized in its changing conjunctures (Peck, 2017). Conjunctures refer to "specific institutional and political-economic conditions often beyond the scale of the city per se" (Peck, 2017, p. 22). When Harvey first noticed the significant shift from managerialism to entrepreneurialism, he situated local practices in a conjuncture of combating the recession, global competition, and strong appeal to market rationality in capitalist economies (Harvey, 1989). In this conjuncture, the entrepreneurial incentive promotes local and regional competitiveness (Jessop, 1997). It is not a spontaneous incentive but a reflection of "the powerful disciplinary effects of inter-urban competition" (Peck & Tickell, 2002, p. 393). The main tactic of urban entrepreneurialism is "public-private partnership," which redefines the boundary between local governments and market actors (Jessop, 2000). Entrepreneurial governance prioritizes speculative development tactics and leads to the ascendency of market power (Harvey, 1989).

The transformation of urban entrepreneurial governance can be analyzed through the dynamic interaction of conjunctures, incentives, and tactics. First, urban entrepreneurialism transforms as a response to shifting conjunctures, leading to diverse incentives and variegated tactics. For instance, the state's interventionist role is rediscovered in various geographical contexts as a reaction to geo-political tensions (Alami & Dixon, 2023; Jonas, 2020; Jonas & Moisio, 2018). The financial sector and city-regions become the focus of the national state's reactions (Zhang & Wen, 2022). At the local level, new municipalist interventions originate from two sources. The financial crisis is rooted in the economic system but transferred into the political system so that the state deals with the crisis using "state projects" (He et al., 2020; Jessop, 2002; Jones & Ward, 2002). An example is "austerity urbanism," which is characterized by significant fiscal shortcuts to deal with the global financial crisis (Peck, 2012). Meanwhile, other crises are derived from social movements when the state and market fail to deliver public goods. In these cases, "radical municipalism" reshapes the municipal state and pursues progressive social changes (Roth et al., 2023; Russell, 2019). Dealing with external and internal crises, cities pursue multiple agendas beyond economic growth. Urban entrepreneurial activities have been adapted to different conditions to address various government ambitions (Ferm & Raco, 2024; McGuirk et al., 2021).

Second, the transformation of urban entrepreneurialism is not only due to external crises but also because of internal limits of entrepreneurialism (Peck, 2017; Peck & Whiteside, 2016). The aggregate effects of entrepreneurial practices may lead to crises that further reshape the conjuncture, resulting in governance changes. That is why Harvey (2011) points out the urban roots of financial crises. Peck and Whiteside (2016) argue that cities taking an entrepreneurial stance gradually develop similar strategies, and homogeneous competition leads to falling marginal benefits. The internal limits of entrepreneurial practices lead to social movements and the restructuring of municipalities (Russell, 2019; Thompson et al., 2020).

Third, entrepreneurial tactics also transform governance incentives. In particular, speculative governance tactics reshape local politics (Beswick & Penny, 2018; Kirkpatrick & Smith, 2011; Van Loon et al., 2019). For instance, tax incremental financing (TIF) is a debt instrument for municipalities to attract external capital for urban redevelopment (Weber, 2010). It runs by selling prospects of the future tax return on property in the redeveloped district. Since TIF boosts property value in specific areas, the market demands more designated districts, and more land plots are developed with TIF. Local governments are thus confined in the loop of "investment, securitization, appreciation, investment" (Weber, 2010, p. 265). Based on Detroit, Peck and Whiteside (2016) further proposed "governance financialization." In this situation, finance in governance is not an instrument controlled by the growth coalition to pursue entrepreneurialism; it overturns the local power nexus and leads to financialized governance (Peck & Whiteside, 2016).

Although urban entrepreneurialism remains a powerful explanation in the literature, its conjunctures, incentives, and tactics have significantly transformed (Lauermann, 2018). This transformation needs to be understood with specific conjunctural moments in dealing with external and internal crises associated with political-economic contexts (Peck, 2017). Second, local entrepreneurial incentives have been diluted to incorporate diverse incentives alongside growth incentives. The diverse agenda may lead to conflicts within the previous growth coalition and undermine urban entrepreneurialism (Kirkpatrick & Smith, 2011; Peck & Whiteside, 2016). Third, the transformation of urban entrepreneurialism is manifested in the updated tactics of entrepreneurial governance, especially innovation in financial tactics (Van Loon et al., 2019). Granular analyses are called to understand how urban entrepreneurialism evolves institutionally and spatially (Lauermann, 2018).

3. Urban entrepreneurialism and land governance in China

Urban entrepreneurialism has been widely used to explain urban governance and urban development in China (Chien, 2013; Lin et al., 2023; Shin, 2009; Wu, 2003). Local governments act like entrepreneurs

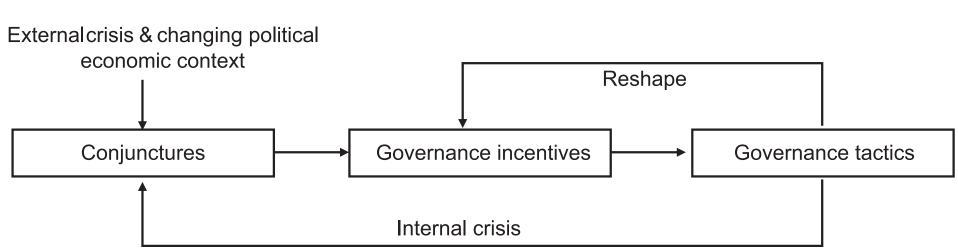

Fig. 1. Understanding changing urban governance through the framework of "conjunctures-incentives-tactics."

to pursue local development (Guo, 2020; Lin et al., 2023; Su, 2015). In the Chinese context, urban entrepreneurialism derives from urban competition, pursues growth agendas, and manifests in various entrepreneurial tactics (He et al., 2018; Wu, 2018; Yang & Wang, 2008). However, entrepreneurial governance in China has specific institutional origins. Entrepreneurial practices are largely expressed by land incentives and implemented by land tactics (Chien, 2013; Shin, 2009; Wu, 2018).

First, local governments in China act like entrepreneurs in a conjuncture of globalization, economic reforms, fiscal decentralization, and land monopolization (Wu, 2018). Their entrepreneurial incentive is mainly expressed by a land incentive—reaping land sales revenue due to the tax-sharing system (TSS) and the cadre promotion system (Li & Zhou, 2005; Lin and Ho, 2005; Wu et al., 2015). TSS has restricted local tax revenue but assigned land-related income to local revenue (He et al., 2016; Lin, 2014). The other institutional reason for entrepreneurial governance is the cadre promotion system, which means that the upper-level governments evaluate the performance of local cadres according to the local GDP performance (Guo, 2020; Li & Zhou, 2005). Local governments must invest in urban infrastructure and other urban projects to promote growth. Meanwhile, TSS has left limited resources for local governments. Hence, local governments are urged to find extra-budgetary revenue and explore the land market (Cao et al., 2008; He et al., 2016; Lin, 2014; Tao et al., 2010).

Entrepreneurial governance in China is implemented by land-based tactics, namely, making money from the de facto land monopoly (Li et al., 2020; Lin, 2014; Shin, 2014). Two principal tactics are expanding land quotas for sale and borrowing against land for investment (Theurillat et al., 2016; Wu, 2022). The first typical tactic is to expropriate land, develop the land, reap the appreciation of land value, and start another round of land expropriation (Huang & Chan, 2018). Local governments can receive massive land conveyance fees when selling the serviced land in the primary land market. They are incentivized to conduct various land development projects to expand more land for sale, such as industrial parks (Frederic & Huang, 2004; Yang & Wang, 2008), mega-urban projects (Wang & Wu, 2019), new town development (Shen & Wu, 2017), and urban redevelopment projects (Shin, 2014). The second tactic is land-backed borrowing (Wong, 2013). Land development projects require massive investment first and land value appreciation afterward. Local governments have to invest before receiving land premiums. Therefore, they mobilize their financing platforms, such as development corporations and land reserve centers, to borrow and invest in land projects (Wu, 2018, 2022). These two land tactics are interrelated and reinforce each other.

Land-centered entrepreneurial governance has been intensified since 2008. Combating the global financial crisis constituted the conjuncture. The Chinese state initiated a stimulus package in 2008, aiming at investing 4 trillion yuan in infrastructure to revitalize the economy. Local governments were mobilized to seek extensive funds and promote local growth via investment. Hence, local incentives for growth and land value maximization have been strengthened. Local governments have resorted to land corporations to explore various financial channels, leading to substantial local government debt (Feng et al., 2023; Wu, 2022, 2023). The stimulus plan led to a surge in industrial parks, mega-urban projects, and real estate development (Gyourko et al., 2022; Theurillat & Graezer Bideau, 2022). For example, three rounds of shanty-town development were initiated to tackle social discontent and the economic crisis (He et al., 2020). Despite massive investment, actual demand in housing and industries was lacking (Wang & Zhang, 2022). Development fueled by land finance led to oversupply, increasing housing prices, and booming local government debt.

The state has initiated a series of strategies to address these issues since 2014. For example, the central state has urged new development pathways, while the local reliance on land finance remains (Yang et al., 2019). Consumption has been encouraged to deal with the over-accumulation of housing, which has been far from successful in an economic downturn (Theurillat & Graezer Bideau, 2022). Meanwhile, the issue of local government borrowing is looming. The central state has introduced local government bonds and re-centralized the management of local government borrowing since 2014 (Li et al., 2023, 2024). Local governments have been struggling with the imperatives of economic development and financial risk management (Feng et al., 2022a). In addition, political mandates have transformed to incorporate various concerns, such as environmental protection and cultural preservation (Wu et al., 2022; Wu & Zhang, 2022). Like in Western studies, local governments have to achieve a broad range of goals.

Nevertheless, there are two distinct features in understanding changing entrepreneurial governance in China. First, state interference dominates the transformation of urban politics in China (Wu & Zhang, 2022). This origin differs from "municipal statecraft" or "municipal radicalism" in Western studies in which municipal states or citizens led the changes (cf. Roth et al., 2023). In China, local governments face pressures from the central state to fulfill new strategic goals, which dilutes the local growth agenda (Kostka & Zhang, 2018; Li, 2022). Second, the interference of the Chinese state has a scalar and institutional preference. The national state favors top-down institutional transformations to deal with external and internal crises. Local governments adhere to the central state to unlock resources, while the central state selectively supports city regions to achieve its political goals further (Zhang & Liu, 2023; Zhang & Xu, 2024). Either the four-trillion yuan stimulus package in 2008 or financial re-regulation in managing local debt since 2014 reflects the power of the national state in devising financial means to achieve the state's goals (Wu, 2020). Faced with local government financial risks, the state recentralizes the control of local land-backed financial conduits, such as the new land reserve institution we will study. Hence, this paper is situated in the conjuncture where the Chinese state deals with "the crisis of crisis management." (cf. Jones & Ward, 2002) It is thus intriguing to understand the trajectory of evolving entrepreneurial governance in China.

4. Methodology

While many studies have noticed the transformation of entrepreneurialism, only a few studies have illustrated how entrepreneurialism evolves in a changing conjuncture with local struggles (cf. Peck, 2017a). This research fills the gap by investigating the reconfiguration of the land reserve system in China, which has significantly transformed local entrepreneurial tactics and possibly reshaped entrepreneurial governance.

Using the framework of "conjunctures-incentives-tactics," this research analyzes the conjuncture of the new land reserve institution and how it transforms land tactics and entrepreneurial incentives. The empirical study draws upon data from archival analysis, statistical analysis, and semi-structured interviews. First, we analyze policy documents to understand the conjuncture of the new land reserve institution by positioning the regulations in combating local financial risks. We also analyze statistical data about local government debt and land sales revenue from the National Statistical Bureau. Second, we use Shanghai to illustrate local responses to the new land reserve institution. Shanghai was selected as the case because it was one of the first cities to establish land reserve authorities in the 1990s. It is adept at mobilizing land as a commodity and a financial instrument to raise funds for urban development. Although Shanghai does not overly rely on land finance (compared to other cities), it still depends on land sales income. Land conveyance fees account for an average of 30 % of local revenue (Fig. 2). Moreover, this paper does not focus on geographical varieties under the new land reserve institution. It aims to demonstrate how local entrepreneurial practices transform in a changing conjuncture — persistent financial risks, state restructuring, and declining profits of land finance in China. Like studies on the Atlantic City and Detroit, we use a granular case study to show how a local story unfolds and its implications (cf. Peck, 2017a).

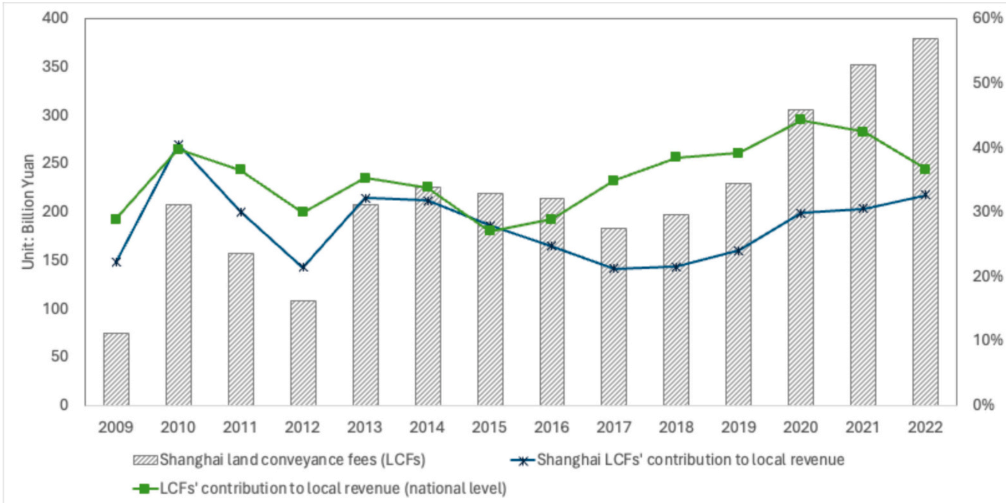

Fig. 2. Shanghai land conveyance fees and the contribution to local revenue.
Data sources: The financial bureau of the Shanghai government and the National Statistics Bureau.

The case study is based on a thorough desk analysis of land development statistics and interviews with key informants related to land reserve projects. We discuss how entrepreneurialism evolves under the new land reserve institution in Shanghai. First, we conducted 22 interviews from 2019 to 2021 with three groups of individuals: government officials (including officials in land reserve centers), managers of relevant urban development and investment corporations, and urban scholars. In particular, we interviewed officials at the Shanghai Land Reserve Centre (LRC) who provided essential knowledge of understanding Shanghai's practices in land reserve projects. Moreover, we collected data on urban development and land transactions in Shanghai from the Shanghai Municipal Bureau of Statistics. We also developed a dataset of land reserve projects in Shanghai based on disclosed reports of land reserve bonds. While previous studies on land finance relied on city-level land data (cf. Gyourko et al., 2022; Lin, 2014), project-level land transactions have been unstudied. The profitability of land reserve projects is unknown. We managed to generate a dataset as local governments are required to disclose the project information when issuing land reserve bonds. Shanghai issued 14 land reserve bonds for 86 land reserve projects from 2017 to 2022. Therefore, we generated a dataset of these projects based on 216 reports, including issuance reports, auditing reports, and legal documents of land reserve bonds. The dataset includes the investment cost, expected land sale income, and bond information of 86 land reserve projects in 15 districts in Shanghai (Fig. 3). Based on the dataset, we analyzed the profit level of land finance. This paper uses quantitative and qualitative data to investigate local land tactics under the new land reserve institution.

5. The management of the land reserve system, a changing conjuncture

The management of the land reserve system in China has significantly changed since 2016. The new institution reflects a conjuncture against the previous decentralized central-local relationship in the post-2008 financial deregulation (Bai et al., 2016; Liu et al., 2022). It redesigns the financial mechanism of land reserve projects and aims to restrict local incentives to chase revenue maximization.

The land reserve system is central for local governments to capture land revenue. Land reserve projects have four steps: land acquisition, primary development of land (or site preparation), land holding, and land disposition (Huang & Chan, 2018). Generally, local governments expropriate land from farmers who owned land by their collectives. These procedures convert rural land to urban land owned by the state and available for transfer. At this stage, local governments collect inappropriately raw land for selling. They then conduct primary development to convert raw land into serviced land. After that, the serviced land is held by the land reserve authorities as reserved land until there is a plan for land transactions. Finally, reserved land can be transferred to developers at a bidding price. Land reserve projects also include urban demolition and urban land acquisition in built-up areas to redevelop them for future transactions (cf. Shin, 2014). The land reserve system is critical for local governments to prepare land for sale, reap land value appreciation, and achieve entrepreneurial goals, which embodies entrepreneurialism in China.

The reconfiguration of the land reserve system reflects a changing conjuncture that puts more weight on financial risk management than the local growth agenda. The new institution deals with land-related borrowing problems in the post-2008 era. Local governments relied on land reserve centers and development corporations to borrow from the financial market to implement the stimulus package (Bao et al., 2024). The most reliable asset used by these agencies was state-owned land. Therefore, local borrowing backed by land expanded extensively (Wu, 2022). Later, local states resorted to land sales to repay contingent local debts, which pushed up land prices and was largely insufficient (Bai et al., 2016).

Given this context, a series of regulations have been implemented to re-regulate local borrowing since 2014. In 2016, four ministries initiated a notice to regulate the land reserve system and fund management, which terminates land reserve loans and excludes development corporations from land reserve projects (Ministry of Finance et al., 2016). Finally, the new land reserve institution was enacted to strengthen the administrative role of land reserve centers (LRCs) and centralize the financial management of land reserve projects (Ministry of Land and Resources et al., 2018). LRCs are the institutes that manage land quotas, negotiate with land planning institutes, and prepare land for transactions. Previously, LRCs had various types, such as development corporations. They used the land as collateral and gained massive land reserve loans from the financial market to develop land for sale (Huang & Chan, 2018; Theurillat et al., 2016). However, after the transformation, LRCs have become specific public institutes responsible only for land reserve projects but not for financing land development. Institutionally, LRCs are defined as public institutes for public welfare.

According to the new land reserve institution, local governments (above county level) should establish their LRCs affiliated with local departments of natural resources. The rationale is to separate the local government and development corporations. The local government is

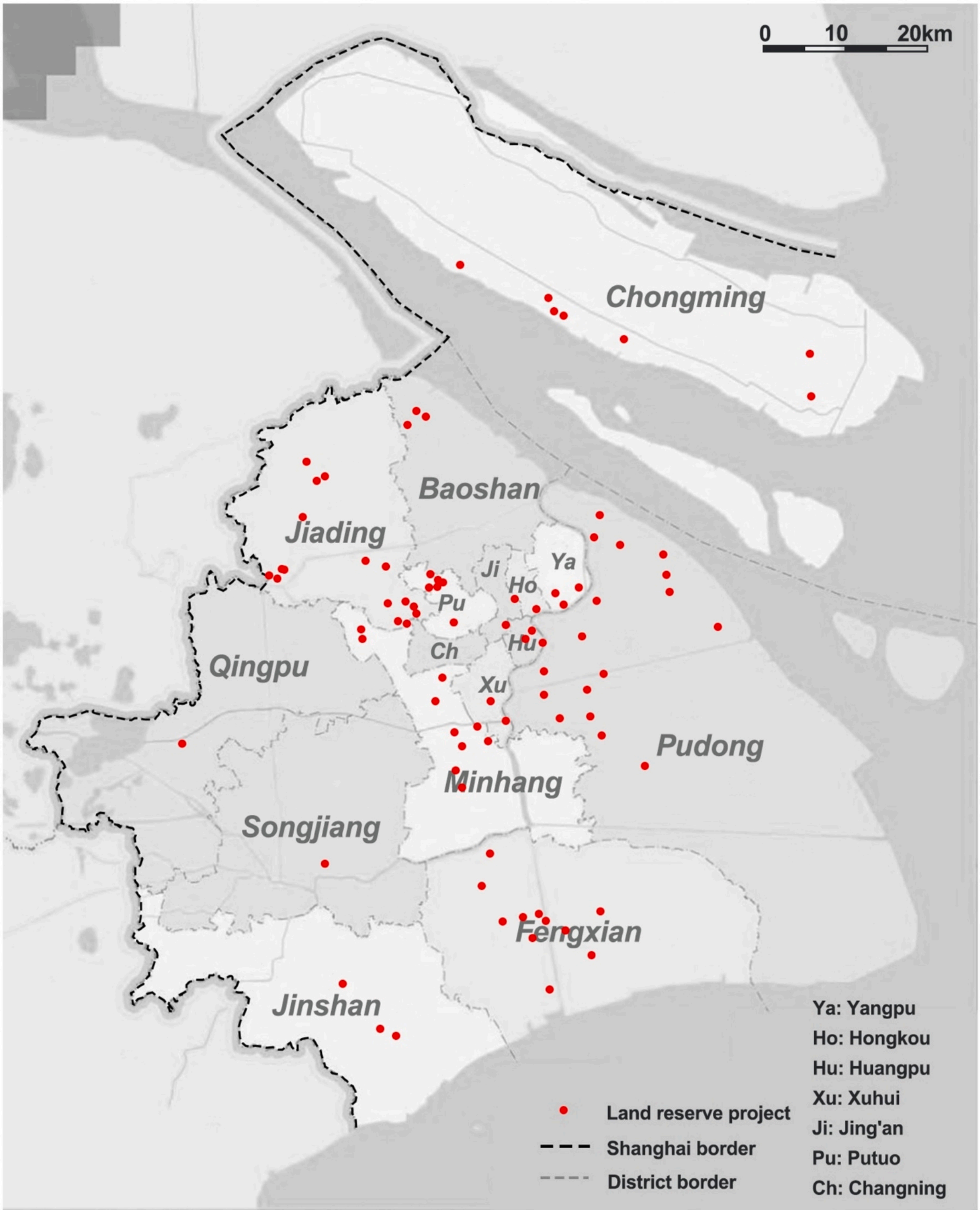

Fig. 3. The location of 86 land reserve projects in Shanghai.
(Source: Authors.)

prohibited from borrowing through corporations, thus controlling contingent local government debts. For financial sources, LRCs used to rely on allocated funds as well as land reserve loans. Nevertheless, LRCs and entities conducting land reserve projects could also get loans from banks based on reserved land. For example, development corporations responsible for land preparation could use reserved land "as collateral to secure loans" (Liu et al., 2016, p. 1,118). Under the new institution, LRCs rely only on local revenue and land reserve bonds managed by the state, while land reserve loans are forbidden. These changes reflect a conjuncture of centralizing central financial regulations on land, deviating from the previous decentralized central-local relationship in land revenue management (He et al., 2016; Lin, 2014; Wu et al., 2015). The new institution significantly challenges local land-related tactics, such as land collateral. It is intriguing to investigate local practices under this conjuncture and the implications for urban governance.

6. Governing land reserve projects in Shanghai — Reshaping tactics

This section focuses on practices in Shanghai to illustrate how local land-related tactics are reshaped (Fig. 4). We find that the previous land tactics dependent on excessive extrabudgetary funding have

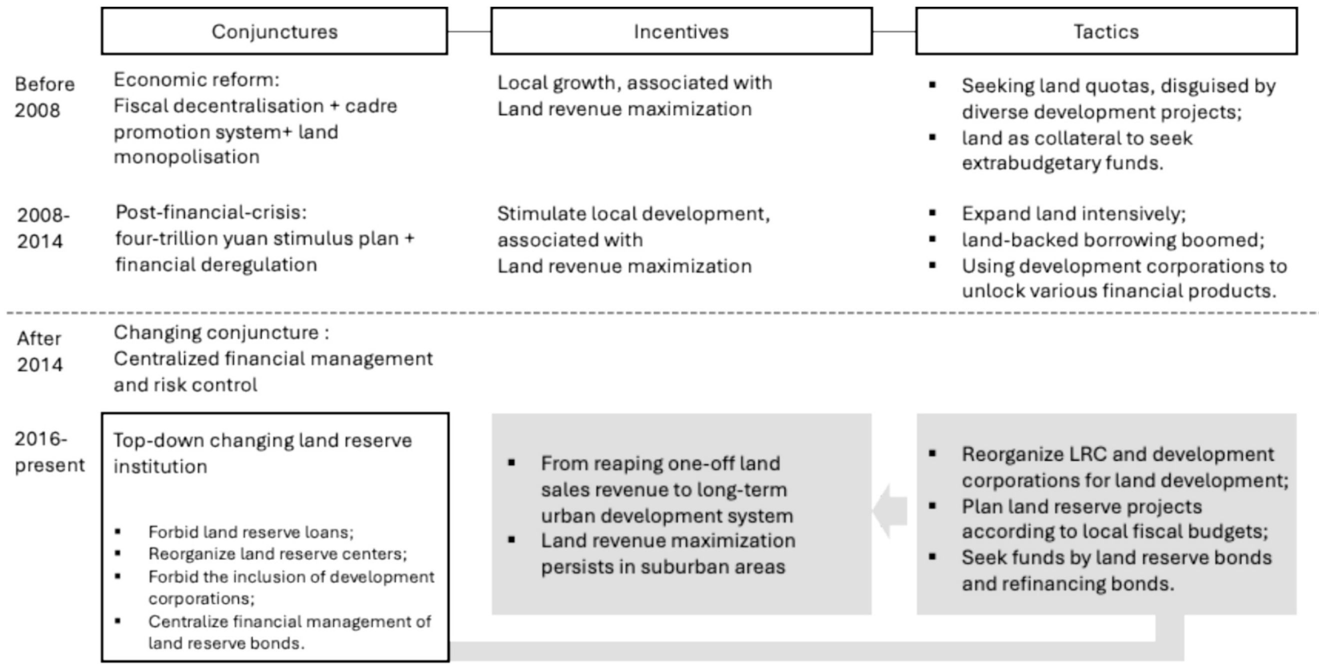

Fig. 4. Evolving entrepreneurial governance associated with the changing land reserve institution.
Source: Authors.

significantly transformed. As a response to the new institution, local governments 1) reposition LRCs and development corporations to align with the new policy, 2) integrate project management into the budgetary process, and 3) seek funding by utilizing land reserve bonds and refinancing bonds.

6.1. Repositioning land reserve centre and development corporations

First, Shanghai LRC has been incorporated into the Shanghai Planning and Resources Bureau since 2016 because of the central regulations. Before this, Shanghai LRC was integrated into Shanghai Land Group (a development corporation). The repositioning of Shanghai LRC and the corporation detaches enterprises from the land management process to align with the policy without giving up local control over land development projects.

The Shanghai LRC used to be a part of the Shanghai Land Group. “Before 2016, the Shanghai LRC and Shanghai Land Group shared the same group with two titles” (Interviewee 7, government official, Sep 2019). At that time, Shanghai LRC was marginal. The Shanghai Land Group managed and conducted land reserve projects at the municipal level. However, land reserve projects were not the only business for Shanghai Land Group. It also undertook commercial real estate projects. This fact may cause unmonitored over-borrowing against state-owned land. In 2016, according to the central regulations on land reserve, Shanghai Land Group as an enterprise should not be an authorized LRC. Therefore, Shanghai Municipality separated Shanghai LRC from Shanghai Land Group. Shanghai LRC has served as an exclusive public institute responsible for managing land reserve projects in Shanghai.

The repositioning of Shanghai LRC and its detachment from Shanghai Land Group epitomizes separating LRCs from development corporations. Previously, the management of land reserve projects was fragmented. District-level governments and development corporations conducted land reserve projects in designated areas. For example, Shanghai Lingang Economic Group was responsible for primary land development in more than ten development zones in Shanghai. In the previous model, development corporations raised funds from the financial market to support land reserve projects and prepare the land to sell. They could also benefit from the land conveyance fees upon land transfer in the land market.

All the corporations were repositioned as the new institution excluded development corporations from managing land reserve projects. Nevertheless, local governments still use development corporations to conduct land projects. For example, Shanghai Land Group is still one of the most important implementers of land reserve projects in Shanghai. It undertakes these projects in the name of “functional development.” However, its financial operation has changed because Shanghai Land Group cannot leverage reserved land to raise funds for land preparation. Instead, the Shanghai government allocates money within the budget to Shanghai Land Group to cover the cost of land reserve projects. Shanghai Land Group can only get management fees from these projects, which is 1 % of the investment cost (Shanghai Brilliance Credit Rating and Investors Service Co., 2015). Similarly, other development corporations continue to conduct land reserve projects in their designated areas as operating institutes like Shanghai Land Group. However, the financial channel is different. As commented by an interviewee,

> “Now, I [development corporation] don’t have to pay for the primary development. All the land development costs are paid by local governments, and the income has nothing to do with me [development corporation].” (Interviewee 11, a manager of a development corporation in Shanghai, August 2020).

Previously, development corporations could quickly get land-backed loans or other financial products against reserved land because the financial market anticipates the income from land sales revenue. Funds raised from development corporations were not recognized or managed by the government. Using unmonitored funds, local governments managed to invest in local development projects and prepare more land for sale. However, the new land reserve institution has detached development corporations from land reserve projects and prohibited local borrowing against reserved land. Therefore, extra-budgetary funds raised by development corporations become impossible. Only LRCs are responsible for the management of land reserve projects.

6.2. Integrating land project management into the budgetary process

The main feature of the new land reserve institution is to centralize the financial management of land reserve projects, which also reshapes project management. As extrabudgetary funding is forbidden, local governments should become more prudent and financially responsible for the land development plan.

First, the expenditure and income of land reserve projects are managed in a budgetary process (Fig. 5). Shanghai LRC cooperates with district-level LRCs to manage land reserve projects in Shanghai. It compiles the annual land reserve plan associated with a funding plan to show that the land reserve plan is feasible in the next year. The project plan and funding plan need to be approved by Shanghai Planning and Natural Resource Bureau and Shanghai Financial Bureau. Finally, the plans are reported to the Ministry of Natural Resources and the Ministry of Finance. With the approval of these two ministries, allocated funds could be used in land reserve projects. The funding sources include local budgetary funding and land reserve bonds, a special type of local government bonds.

This management process demonstrates that the administrative system, especially the financial departments, entirely controls the financial sources of land reserve projects. As the financial feasibility determines the project plan, land reserve projects are restricted by the financial sources controlled by the state system.

Second, LRCs are required to invest in land reserve projects based on their expected land income. When planning land reserve projects, Shanghai LRC "determines expenditure by income" (Interviewee 5, government official, September 2019). The expenditure includes compensation fees, infrastructure construction, and even investment in public housing. Fig. 6 shows that no matter how much the Shanghai government earns from the land conveyance fees, it spends nearly the same amount on other land reserve projects yearly. It is worth noting that this figure only shows expenditures recorded by the local fiscal system. Before 2016, the Shanghai government had numerous unmonitored funding sources to invest in land reserve projects, such as funds raised by development corporations. Therefore, the actual investment in land reserving significantly exceeded the disclosed data. However, the Shanghai government has only relied on monitored financial sources for land preparation since 2016. The actual investment equals the disclosed data. The introduction of the new institution has terminated any unmonitored funding sources.

Institutionally, LRCs are empowered to become functional entities to manage and monitor land reserve projects. Officials in LRCs are not evaluated by the performance of land sales revenue. They are responsible for recording "the costs and land sales income into two separate financial accounts" (Interviews with officials in LRCs, 2019). That is, Shanghai LRC is not responsible for project losses or gains. It only needs to record and update two financial accounts: expenditure and income. Therefore, the new land reserve institution uses LRCs as functional entities to manage local land development.

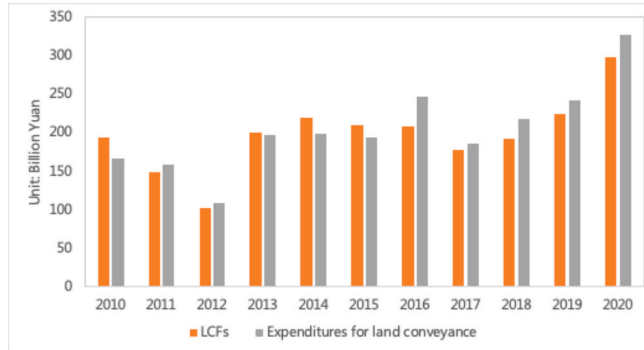

Fig. 6. The land conveyance fees (LCFs) and fiscal expenditures for land conveyance in Shanghai.
Data source: Annual reports by the financial bureau of the Shanghai government.

6.3. Financing and refinancing through land reserve bonds

Bond issuance becomes a new tactic for local governments to maintain their land operations. The land reserve bond is a popular local government special bond. Almost every provincial-level government has issued land reserve bonds since its introduction in 2017.

First, local governments can use land reserve bonds to raise extra funds to prepare more land to sell. Due to the new land reserve institution, issuing land reserve bonds becomes the only financial channel for local governments to explore extra funding for land reserve projects. Nevertheless, the bond issuance is managed by a top-down quota approval system. In Shanghai, district-level LRCs apply for quotas of land reserve bonds based on their plans for land reserve projects. The Shanghai municipal government compiles and reports these plans to the Ministry of Finance. The Shanghai government finally issues land reserve bonds for all the LRCs upon approval. Incorporated into the budgetary system, land reserve bonds become a monitored financial source to strengthen central control.

Moreover, the Shanghai government used refinancing bonds to roll over the debt. Shanghai issued 88.73 billion yuan of land reserve bonds from 2017 to 2022. We find that all land reserve bonds are refinanced by a refinancing special bond when they mature at least once (Table 1). Three bonds were even refinanced twice. That is because the duration of land reserve bonds should not exceed five years in principle. However,

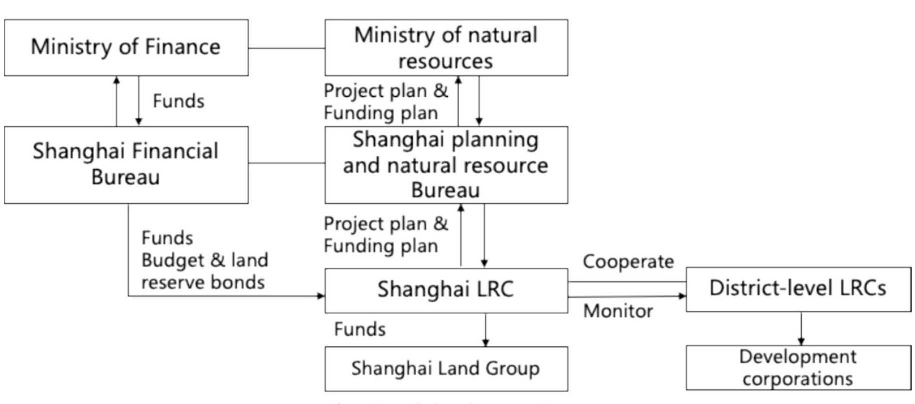

Fig. 5. The financial management and project management conducted by Shanghai LRC.
Source: Authors.

Table 1
The issuance of land reserve bonds and related refinancing bonds in Shanghai (2017–2022).

Year	Land reserve bond	Bond issuance (billion yuan)	Duration (years)	Refinance	Refinancing bond issuance (billion yuan)	Duration (years)	Second round refinance
2017	2017 Shanghai land reserve bond (No.1) ——2017 Shanghai special local government bond (No.5)	0.79	3	Yes	0.79	5	Not mature
2017	2017 Shanghai land reserve bond (No.1) ——2017 Shanghai special local government bond (No.6)	0.78	3	Yes	0.78	5	Not mature
2017	2017 Shanghai land reserve bond (No.1) ——2017 Shanghai special local government bond (No.7)	1.11	3	Yes	0.41	3	Yes
2017	2017 Shanghai land reserve bond (No.1) ——2017 Shanghai special local government bond (No.8)	1.96	3	Yes	1.96	3	Yes
2017	2017 Shanghai land reserve bond (No.1) ——2017 Shanghai special local government bond (No.9)	0.10	3	Yes	0.10	3	Yes
2018	2018Shanghai land reserve bond (No.1) ——2018 Shanghai special local government bond (No.4)	7.37	3	Yes	1.77	5	Not mature
2018	2018Shanghai land reserve bond (No.2) ——2018 Shanghai special local government bond (No.5)	13.73	5	Yes	13.73	3/5/10	Not mature
2019	2019 Shanghai land reserve bond (No.2) ——2019 Shanghai special local government bond (No.4)	2.53	3	Yes	1.34	5	Not mature
2019	2019 Shanghai land reserve bond (No.1) ——2019 Shanghai special local government bond (No.1)	15.61	5	Not mature			
2019	2019 Shanghai land reserve bond (No. 3) ——2019 Shanghai special local government bond (No.5)	43.26	5	Not mature			
2022	2022 Shanghai special local government bond (No. 5)	0.18	7	Not mature			
2022	2022 Shanghai special local government bond (No. 13)	1.26	3	Not mature			
2022	2022 Shanghai special local government bond (No. 19)	0.05	5	Not mature			

Data source: Disclosed reports on land reserve bonds and local government bonds by the Shanghai government.

land plots may not be sold within the estimated time due to the uncertainty of the land market. The stagnant real estate market during the pandemic also exacerbated the land market. The Shanghai government does not receive the expected amount of land income. To repay land reserve bonds, the Shanghai government issues refinancing special bonds. In doing so, Shanghai uses refinancing bonds to lengthen the maturity of land reserve bonds and secure funding.

Based on Shanghai's practices, the new land reserve institution has reshaped local entrepreneurial tactics centered on land. Previously, entrepreneurialism was implemented by two main tactics related to land: land sprawl to gain more land quotas for sale and land collateral to acquire funds for land investment (Pan et al., 2017; Tsui, 2011; Wu, 2022; Yang & Wang, 2008). The new land reserve institution first terminates land collateral and extrabudgetary funding from development corporations. Second, the centralized financial management of land reserve projects restricts local land reserve plans and limits local capability to prepare more land for sale. As a response, local governments have to consider land profits practically and compete for funds from within the budgetary system rather than through extra-budgetary channels.

7. Reshaping entrepreneurial incentives, evolving entrepreneurialism with tensions

The new land reserve system has institutionally reshaped local land tactics. This section aims to understand how institutional changes and the declining profitability of land reserve projects influence local entrepreneurial incentives. We find that entrepreneurial incentives have evolved, but the previous land incentive persists in some areas.

7.1. Rethinking the profitability of land reserve projects

The profitability of land reserve projects needs to be investigated in the changing context. Early studies overlooked the cost of land reserve projects, including compensation and the cost of primary land development. Therefore, land conveyance fees (LCFs) were regarded as "windfall revenue" with little cost (Ding & Lichtenberg, 2011; Tsui, 2011). However, "the cost of land acquisition and preparation has rapidly increased" (Interviewee 14, government official, August 2020). As a result, the pure fiscal contribution of land reserve projects, namely land conveyance fees deducting investment costs, has shrunk. This section discusses this issue based on Shanghai's practices.

The cost of land reserve projects has increased unexpectedly, undermining the fundamental argument of land finance. For instance, in Shanghai, land reserve projects in the inner-city area might still profit, while projects in the suburban area can only offset development costs in the long run. As an official of a Shanghai LRC explained:

> "The input-output ratio of land reserve projects in the central area is about 1:2. The suburban area is another case. The suburban area usually requires massive investment in infrastructure and public facilities at the stage of primary land development. Therefore, for these areas, our cost generally equals our gains from the land conveyance fees." (Interviewee 5, government official, September 2019)

The profit level of land reserve projects in suburban and inner-urban areas is different because the land cost varies. In inner-city areas, the cost of land reserve projects has climbed due to increasing compensation standards for replacement. However, in suburban areas, the cost of land reserve projects generally equals the land conveyance fees in the long run because of extensive investment in infrastructure and facilities before and after land transactions.

We analyzed the profit levels of land reserve projects in Shanghai based on a project-level dataset. There are 86 land reserve projects in disclosed reports. The disclosed projects are relatively profitable as they are used to guarantee the repayment of land reserve bonds. Hence, each project includes residential or commercial land to generate promising land income. Scholars believe these types of land plots can generate massive income with minimal cost, while industrial land cannot (Tao et al., 2010; Yang & Wang, 2008). Nevertheless, we find that 86 projects cost 297.77 billion yuan in total, with an expected income of 424.29

Table 2
The profit level of land reserve projects in Shanghai (2017–2022).

District	Project investment (billion yuan)	Expected income (billion yuan)	Financial cost (billion yuan)	Profit level	Number of projects	Non-profit projects
Hongkou District (Inner city area)	5.06	5.14	1.77	−33.47 %	1	1
Qingpu District (Suburban area)	1.55	1.21	0.06	−26.13 %	1	1
Jing'an District (Inner city area)	31.74	32.96	3.58	−7.44 %	2	1
Huangpu District (Inner city area)	31.12	31.12	2.25	−7.21 %	3	2
Yangpu District (Inner city area)	34.02	35.22	3.17	−5.78 %	3	2
Pudong District (Suburban area)	60.38	69.15	3.16	9.28 %	17	6
Songjiang District (Suburban area)	19.80	28.64	1.19	38.64 %	1	0
Minhang District (Suburban area)	67.41	105.48	5.40	48.48 %	10	0
Putuo District (Inner city area)	16.15	26.37	2.26	49.25 %	6	1
Chongming District (Suburban area)	5.76	10.94	0.26	85.15 %	7	0
Xuhui District (Inner city area)	13.97	35.76	0.21	154.61 %	2	0
Fengxian District (Suburban area)	2.05	6.47	0.20	206.85 %	11	3
Jiading District (Suburban area)	7.39	26.62	1.26	243.11 %	16	0
Baoshan District (Suburban area)	0.90	5.87	0.12	539.89 %	3	0
Jinshan District (Suburban area)	0.48	3.34	0.02	587.78 %	3	0
In total	**297.77**	**424.29**	**24.91**	**34.12 %**	**86**	**17**

Notes: 1) We collated data from 216 reports related to the issuance of land reserve bonds in Shanghai. 2) The financial cost is calculated based on the interest rates of land reserve bonds. 3) The profit level is calculated using the formula: $Profit\ Level = \frac{Expected\ Income - Project\ Investment - Financial\ cost}{Project\ Investment} * 100\%$.

billion yuan (Table 2). After deducting the financial cost, the average profit level is only 34.12 %. The actual profit level of land reserve projects is likely lower than this figure because the expected income is usually exaggerated.[1] More importantly, our dataset only includes relatively profitable projects due to the bias of disclosed reports. Other land plots, such as roads, green infrastructure, and industrial land, can hardly yield premiums. Hence, the overall profit level at the municipal level is bleak.

Moreover, 17 out of 86 projects cannot make any profits, of which 16 are in the inner-city area (Table 2). Even land plots in the inner-city area can hardly profit because of the new trend of urban redevelopment—preserving the culture. In 2017, Shanghai promoted a strategy called preservation-reconstruction-demolition rather than the previous model called demolition-reconstruction-preservation to guide urban regeneration projects in old city areas (Shanghai Municipal Government, 2017). This shift means that the priority of urban redevelopment is preserving previous buildings rather than demolition. As a result, "many old houses are kept, and the plot ratio is restricted. Then it means that the cost of demolition and relocation is indeed high, but the final land price is uncertain" (Interviewee 5, governmental official, September 2019).

For example, the Shanghai LRC conducted a joint land reserve project with the Yangpu district-level LRC called the "Daqiao 88 neighborhood redevelopment land reserve project" in 2019. This project would prepare 62,790 m^2 of land in the inner-city area. The estimated investment cost is 13.47 billion yuan, including the relocation of residents and the construction of facilities and green spaces. However, the estimated land conveyance fee (mainly obtained from residential and commercial land use) is only 8.03 billion yuan (Shanghai Land Reserve Centre, 2019). The income is significantly insufficient to cover all the costs. Therefore, profit is not guaranteed even for land reserve projects in the inner-city area, including residential and commercial land. The profit ratio depends on various characteristics of the reserved land, including its plot ratio, the rate of demolition, and the future land use plan. This fact challenges previous understanding about the high profits of land reserve projects (Cao et al., 2008; Lin, 2014; Shin, 2009).

7.2. Reshaping entrepreneurial incentives

It has been widely accepted that entrepreneurial incentive in China is expressed by a land incentive—reaping land sales revenue (Chen et al., 2017; Chien, 2013; Tao et al., 2010; Wu et al., 2015). In the past, land reserving was conducted to prepare more land for sale to reap land revenue. However, as the cost of land reserving climbs and the financial conduits are restricted because of the new land reserve institution, local financial motivations for conducting land reserve projects have been weakened. The local government continues to conduct land reserve projects, although LRCs incur losses on some projects. This fact could not be explained by local governments reaping the land sales revenue in the land market. As explained by an official of Shanghai LRC,

> "From the input and output perspective, I (the LRC) do not have motivations to do land reserve projects to make money… Land reserving is the engine for urban development. Not just to prepare the land for money. We are also making the engine bigger to trigger

[1] For example, an audit report of a land reserve bond estimates the land sales income based on an annual increase rate of 6 %, which exaggerates the actual increase in land price.

further development." (Interviewee 6, government official, September 2019)

Based on this explanation, land reserve projects do not reap the exchange value in the land market; instead, land reserving is redefined as a dynamic process to trigger urban development. There are two dimensions. First, although the profitability of land reserve projects is relatively low, these projects can generate a large flow of money. This differs from the previous understanding of reaping land revenue because officials are aware of the low profitability of land reserve projects. However, land reserve projects should be done to maintain the operation of urban development by providing funds for circulation. No matter how much local states could receive from the land conveyance fees, they continue to invest in land reserve projects. The second dimension is to trigger income streams by doing land reserve projects. These projects include public facilities and services, such as green spaces, rather than being limited to infrastructure. Because of these facilities, the local government expects an increase in land prices in the whole area in the long run. Meanwhile, serviced land produced by land reserve projects could be sold in the land market to trigger further investment in land. The investment further contributes not only to a specific industry, such as real estate but also to urban development broadly. The local government expects a stable income stream not only from industry-based taxes but also from an enlarged urban accumulation and consumption system. In this sense, land reserve projects keep the engine running. Therefore, the entrepreneurial incentive underlying land reserve projects has evolved from simply reaping the one-off land sales revenue in the land market to triggering sustainable urban development.

However, the previous entrepreneurial incentive based on land sales revenue persists. Even in Shanghai, some local cadres still pursue land sales revenue for a good promotion performance. As mentioned by an interviewee,

"In a suburban district, the head of a district will be there for only three to five years. The income from land sales is obvious, and the economic development (supported by land sales) is also significant. Due to this consideration, local governments still pursue land sales revenue." (Interviewee 6, government official, September 2019)

This explanation echoes the previous understanding that local governments pursue entrepreneurial growth by selling land under promotion pressure (Guo, 2020). This practice still happens in suburban areas in Shanghai because local governments can still anticipate land sales revenue based on the stock of reserved land. As local cadres are evaluated mainly by short-term performance, they tend to focus merely on the land sales revenue during their tenure, disregarding the previous development or future investment costs in the area. This practice is tied to the cadre promotion system, which has not changed significantly (Chen et al., 2017; Yang & Wang, 2008). Nevertheless, the land sales income is used to invest in infrastructure, public services, and pollution treatment in the suburban area. Considering the long-term massive investment, the profit level of land finance is not promising (Interviews with government officials, 2019).

In brief, based on Shanghai, this section rethinks local incentives to conduct land reserve projects and highlights the tension within entrepreneurial incentives. That is, local governments increasingly realize that land sales have become less profitable alongside the changing institutions and declining profitability of land finance. Therefore, they modify their entrepreneurial incentive underneath land reserve projects. Previously, they only relied on these projects to reap land sales revenue. Now, they use the land to create a recurrent stream of investment. This incentive is still entrepreneurial because local governments use the land to promote "growth." However, the growth incentive is modified as a long-term, slow-paced entrepreneurial goal rather than short-term land revenue maximization. Meanwhile, the incentive of using land to reap land sales revenue persists due to path-dependent institutional reasons (e.g., cadre promotion system). Hence, we find that entrepreneurialism evolves with tensions in a changing conjuncture.

8. Conclusions

Responding to the call to analyze urban entrepreneurialism in the changing conjunctures (Lauermann, 2018; Peck, 2017; Phelps & Miao, 2020), this research has understood the changing characteristics of urban governance in China and the new land reserve institution. Empirically, the paper contributes to understanding contemporary practices in China's land reserve projects. Theoretically, it demonstrates how entrepreneurialism evolves in a changing conjuncture.

We propose a framework for analyzing transforming entrepreneurialism by highlighting three components of understanding governance—conjunctures, incentives, and tactics. In recent studies, the changing conjuncture has diluted local incentives for growth while speculative tactics are implemented to achieve diverse agendas (Beswick & Penny, 2018; Lauermann, 2018). Hence, various modalities of entrepreneurialism have been observed (Phelps & Miao, 2020; Van Loon et al., 2019). However, the literature lacks granular analyses on how local governments deal with these challenges and how entrepreneurial incentives are re-diverted. Focusing on China's new land reserve institution, this research provides a detailed account of this issue.

First, positioning the new land reserve institution in its specific conjuncture, we find the institutional reconfiguration reflects the state's initiative to deal with "the crisis of crisis management" in China. The new land reserve institution aims to cope with local government financial risks due to credit expansion in the post-2008 era. These financial risks are rooted in the institutional origins (e.g., tax-sharing system and cadre promotion system) but are accentuated by the stimulus package and deregulation of local government borrowing (Bai et al., 2016; Feng et al., 2022b). While the financial expansion in the post-2008 era was a state project to deal with the global financial crisis, the state is now dealing with the crisis induced by its previous crisis management efforts. Hence, financial re-regulation and state restructuring characterize the contemporary conjuncture. This political conjuncture deviates from the previous fiscal decentralization and local land monopolization, underpinning the prior explanation of entrepreneurialism (Chien, 2013; Lin, 2014; Wu, 2018). Moreover, institutional reconfiguration is coupled with the structural limits of entrepreneurial practices, manifesting in land finance's declining profitability. While scholars have been concerned about the viability of land finance, empirical evidence is lacking (Gyourko et al., 2022). This research reveals the low profitability of land projects based on a manually collated dataset of Shanghai's land reserve projects.

Under this conjuncture, the new land reserve institution transforms local land-based entrepreneurial tactics. Previous land tactics, such as aggressive land sprawl and revenue maximization, depended on extensive land-related borrowing to finance land reserve projects and obtain land quotas (cf. Huang & Chan, 2018; Liu et al., 2016; Tsui, 2011). However, the new land reserve institution has restricted local financial sources for land reserve projects. LRCs become functional entities monitoring local land development and financial issues. Meanwhile, local governments do not passively conform to the new regulations. They maintain the development function of development corporations and explore funding from land reserve bonds. These practices reflect the tension between managing financial risks and promoting local growth.

The new land development tactics modify the incentive for local entrepreneurial behavior. Previously, local governments used the land to promote infrastructure, attract investors, boost land prices, and reap land sales revenue (Lin, 2014; Shin, 2009; Su & Tao, 2017; Tsui, 2011). However, the entrepreneurial incentive has been modified for now due to the centralized financial management and declining profitability of land reserve projects. The previous dominating incentive—land revenue maximization is being replaced by using land to trigger a long-term recurrent stream of investment and enhance the accumulation and circulation of the urban economy. This modified incentive is still entrepreneurial in nature because local governments still pursue local development, facing inter-urban competition.

Shanghai's particularities reflect urban governance in China. For example, Shanghai does not overly rely on land finance and has a steady income from the land market while facing market fluctuations. Nevertheless, from a conjunctural perspective, a case can have more than local implications when local practices can be understood in relation to a sharing conjuncture (Peck, 2017). This conjuncture is characterized by prolonged local financial risks, re-centralizing state control, and declining profitability of land finance in China. Facing this conjuncture, land-centered entrepreneurial tactics and incentives have been reshaped in Shanghai and other cities. Considering Shanghai's particularities, some district governments may continue their land-driven practices due to the relatively high land prices. For other inland cities, reaping land premiums is more challenging. For example, in Wuhan, local governments adopted the "project land package," using profitable land plots to offset the cost of other non-profitable projects (Luan & Li, 2022). In Hebei, local governments resort to China Fortune Land Development to conduct land reserve projects because of the lack of local financial capacity (Li & Yuan, 2022). In Nansha, local governments mobilize "strategic partners" to conduct land development and investment because Nansha faces a mounting debt issue (Huang & Chan, 2018). All these cases have touched on the sharing conjuncture indicated in this paper, demonstrating the potential of rethinking land-centered entrepreneurial practices in China.

Echoing the call for understanding how entrepreneurialism transforms (Lauermann, 2018; Peck, 2017; Wu, 2020), this research has provided a trajectory of China's evolving entrepreneurialism based on practices in Shanghai. This trajectory differs from new entrepreneurial municipal states in the West, where bottom-up local actions reshape local incentives (Lauermann, 2018; Roth et al., 2023; Russell, 2019). In China, the transformation of entrepreneurialism reflects strong state intention, top-down institutional interference, and crisis management. This finding echoes the proposition that the state has a fundamental role in shaping the modality of entrepreneurialism in China (Feng et al., 2023; Wu, 2020; Wu & Zhang, 2022). The case helps illuminate how entrepreneurialism is reshaped and re-constructed in changing political-economic conjunctures.

CRediT authorship contribution statement

Yi Feng: Writing – review & editing, Writing – original draft, Project administration, Methodology, Data curation, Conceptualization. **Fulong Wu:** Writing – review & editing, Supervision, Resources, Project administration, Funding acquisition. **Fangzhu Zhang:** Writing – review & editing, Supervision, Project administration.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

The authors do not have permission to share data.

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