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– INNOVATING URBAN CHINA: The Rise of the Local Venture State and the Making of New Entrepreneurial Spaces

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Abstract

In this article we centralize the analytic of the local venture state (LVS) to offer a novel framework for investigating China's new urban entrepreneurialism, which emerged after the 2008 global financial crisis. As a spatiotemporally specific response to the crisis, the LVS goes beyond GDP-driven developmentalism, seeking to simultaneously promote economic development, indigenous innovation and social equity using a variety of financialized policy instruments. Ethnographic case studies of new entrepreneurial spaces in Beijing's Zhongguancun area situate the LVS at the interface between Zhongguancun's urban space and China's innovation system. They reveal the rationalities behind the rise of the LVS and discrepancies among policy intentions, the implementation thereof and actual local results. Underlying the mixed results of the LVS, we argue, is the complicated power dynamics within the LVS and a fundamental contradiction between the dynamics of technological innovation and those of wealth redistribution. In our examination of China's LVS vis-à-vis global struggles to tackle the protracted economic crisis and achieve a more socially inclusive model of urban development, we stress the need to theorize urban entrepreneurialism from the global East with the aim of enriching the literature of urban China and of variegated urban entrepreneurialism.

Introduction

In the aftermath of the 2008 global financial crisis (GFC), new forms of entrepreneurial space—such as coworking and maker spaces—began to flourish around the world (Waters-Lynch *et al*., 2016). Originally a community-based, collaborative 'third place' beyond work and home for the rapidly expanding, flexible, informalized global workforce (Merkel, 2019), these entrepreneurial spaces evolved into improvised methods for local governments in Western developed economies to revitalize manufacturing, stimulate innovation and generate employment following the recession. Famous clusters of new entrepreneurial spaces emerged in and around metropolises such as New York and London (Lorne, 2020; Zukin, 2021).

China also witnessed a boom in new entrepreneurial space around the same time. Between 2015 and 2020, the official number of technology incubators and coworking spaces more than doubled from 2,533 to 5,971, and venture capital flowing to incubatees trebled from 26 billion to 79 billion yuan, as China's incubator, coworking and maker-space industry became one of the largest in the world (see Figure 1).[1] As in Western developed economies, entrepreneurial space-making in China is driven by the need to re-energize economic growth, promote innovation, increase urban land values and ease the mass unemployment caused by the protracted financial crisis. These processes have birthed new urban economies and landscapes (Lindtner *et al*., 2014; He and Wang 2019; Zhang and Wu, 2019). Yet, beneath surface similarities, China's trajectory of reinvention is buttressed by a distinct developmental model.

The authors of this article have equal authorship.

1 In official statistics published by the Ministry of Science and Technology, incubators, coworking spaces and maker spaces were aggregated under the category of 'technology business incubators' (MOST, 2017). In this article, we treat them interchangeably.

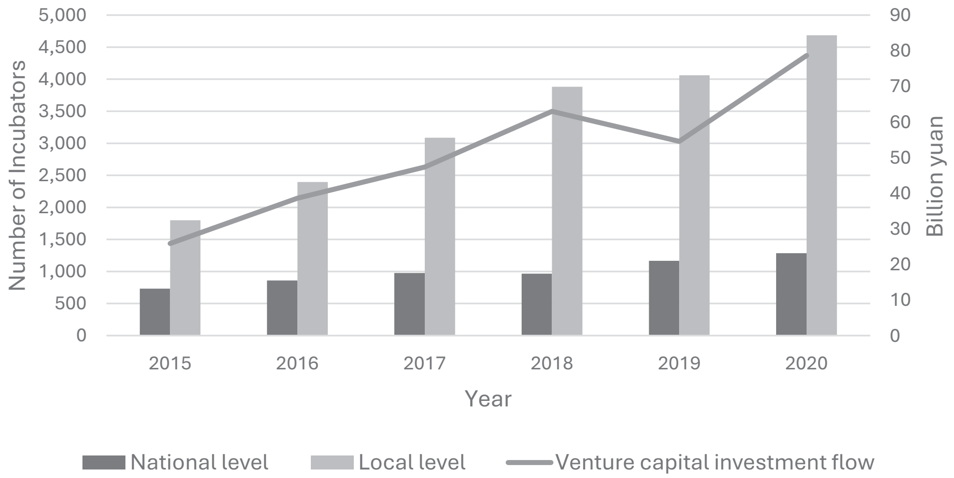

FIGURE 1 Development of the incubator industry in China (2015–2020) (*source*: map drawn by Tu Lan based on data from the China Statistical Yearbooks on Science and Technology, 2017–2021, available at https://kns.cnki.net/knavi/yearbooks/YBVCX/detail?uniplatform=NZKPT, accessed 10 August 2024)

In the United States and most of the European Union, the entrepreneurial space boom has heralded a new age of austerity urbanism in which municipal governments are increasingly subject to the discipline of the financial market (Peck, 2017; Lauermann, 2018). By contrast, the primary agents of China's new urban entrepreneurialism are emerging local venture states (LVSs), some of which are among the largest venture capital investors in the world (Hancock, 2022). Local states, which debuted around the time of the 2008 GFC, evolved from the export-driven, investment-centered local entrepreneurial state of the post-reform era (Wu, 2018; He and Wang, 2019). LVSs repurposed the earlier developmentalist GDP-centric model of land finance, along with socialist mass-line and techno-nationalist politics, to serve the central state's new mandates to spearhead indigenous innovation (i.e. domestic capacities for technological innovation) and redress economic inequalities.

This prompts us to ask two intriguing questions. Does China's new urban entrepreneurialism, exemplified by the state-led creation of coworking and maker spaces, offer an alternative path out of the GFC? What lessons does the emerging LVS offer for urban governance in and beyond China? As a spatiotemporally specific response to the 2008 GFC, the rise of the LVS proffers a unique vantage point for examining the ongoing restructuring of China's economy and for rethinking some fundamental premises in urban and regional studies.

In this article, we answer these questions through a case study of the LVS in Beijing's Zhongguancun (ZGC) area, by highlighting its partial achievements and examining its contradictory ramifications. We chose ZGC as our case study for its central role in the formation of the LVS. More than most other locales, ZGC has been a prime site for studying policy experimentation, technological advancement and urban transformation in China. During the socialist era, it was the hub of China's centralized, state-led innovation system and a testing ground for socialist egalitarianism. When the central state decentralized and adopted GDP-driven developmentalism between the 1980s and mid-2000s, ZGC became an early trial site for pioneering urban entrepreneurialism. This case study examines the post-2008 expansion of entrepreneurial spaces in ZGC.

Continually evolving, ZGC embarked on the central government's Mass Entrepreneurship and Innovation (MEI) and urban redevelopment initiatives in the 2010s and was officially declared a national model for other cities to emulate. Although it did not host the greatest number of incubators and coworking spaces in 2020, the value of venture capital invested in its industry was second only to that of Jiangsu Province (see Figure 2). As pioneer LVSs, local governments (the Beijing Municipality, Haidian District and ZGC Administrative Committee) are adept at retooling land finance to advance indigenous innovation and redress social inequalities, albeit with mixed results at the time of writing. ZGC was home to one of China's inaugural incubator clusters, namely InnoWay, and saw its local governments establish one of the first local government-guided funds (GGFs), the InnoWay Technology Service Inc. It gained official endorsement from Premier Li Keqiang during his MEI campaign, further symbolizing the central state's commitment to simultaneously advancing technological innovation and social equity. Our article is based on an analysis of media coverage of ZGC, policy papers published since the 1980s and 51 semi-structured interviews conducted between 2015 and 2023 with 14 officials and 29 entrepreneurs in Beijing.

In mapping emerging LVS activities via a historically situated ethnography of new entrepreneurial space-making in Beijing's ZGC, we enrich the extant literature of urban geography. While many geographers acknowledge Chinese cities' new initiatives to stimulate technological progress and mitigate social disparities, the intricate tensions between these dual objectives remain underexplored (Zhou, 2015; Shin, 2016; Wu, 2018;

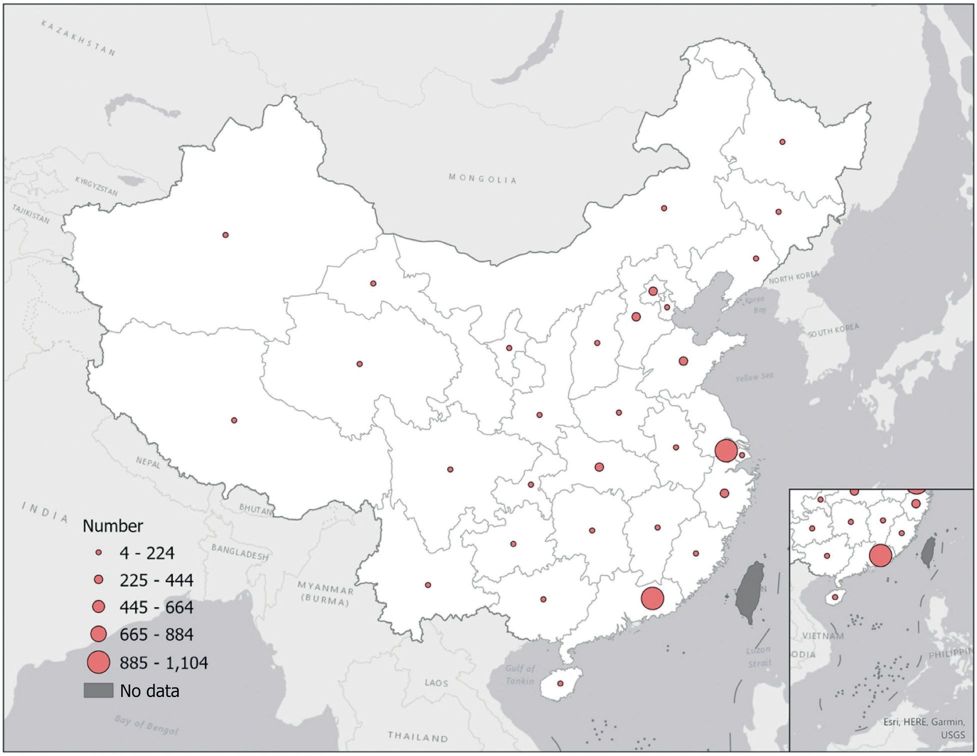

FIGURE 2A Number of incubators and size of venture capital investment in incubators by province in 2020 (*source*: map drawn by Tu Lan based on data from the China Statistical Yearbook on Science and Technology, 2021, available at https://kns.cnki.net/knavi/yearbooks/YBVCX/detail?uniplatform=NZKPT, accessed 10 August 2024)

Zhang and Wu, 2019; He *et al*., 2020; Lin, 2021; Zhang and Wu, 2021; Wu *et al*., 2022). In this article, we endeavor to bridge this gap. Moreover, while existing discussions on China's MEI programs predominantly concentrate on policy formulation at higher administrative levels, they tend to overlook the tangible policy outcomes materializing on the ground. Inspired by recent theoretical advancements (Wang and Tan, 2020) we envision the LVS as a complex assemblage comprising interactive institutions and individuals operating across various scales and thereby unveil numerous unintended repercussions of LVS operations. Finally, we propose three analytical dimensions specifically tailored to distinguish LVSs from their entrepreneurial state counterparts globally and thus contribute to the burgeoning discourse on diverse forms of urban entrepreneurialism (Shin, 2021; Robinson *et al*., 2022).

In what follows, we first conceptualize the LVS and emphasize its spatiotemporal specificities in relation to other models of urban entrepreneurialism in China and beyond. We then trace the co-evolution of the innovation system and urban space in ZGC from the 1950s through the 2020s, highlighting the historical conditions leading to the emergence of the LVS. In the fourth section, we examine the cases of InnoWay, a street in ZGC that was gentrified for innovation in the early 2010s, and of the Garage Café, a landmark site on InnoWay and a global emblem of MEI. We relate the experiences of entrepreneurial institutions and individuals related to the rise of the LVS and to actually existing processes of policy making and implementation. In the final section, we revisit our findings and discuss their broader theoretical implications.

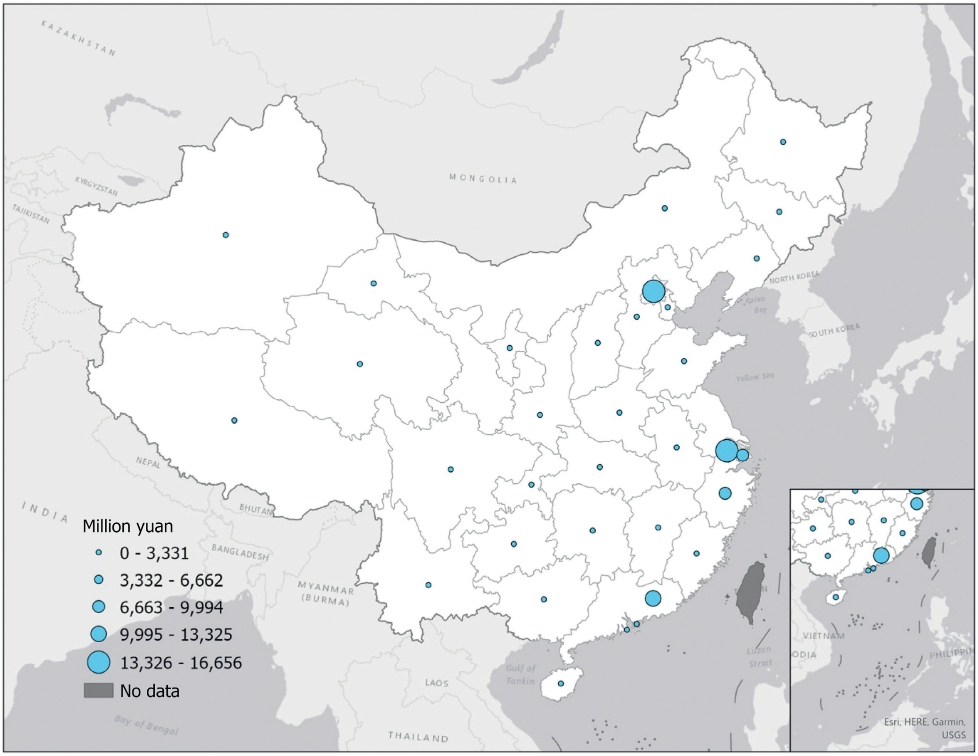

FIGURE 2B Venture capital in incubators by province in 2020 (source: map drawn by Tu Lan based on data from the China Statistical Yearbook in Science and Technology, 2021, available at https://kns.cnki.net/knavi/yearbooks/YBVCX/detail?uniplatform=NZKPT, accessed 10 August 2024)

Three aspects of the LVS

We conceptualize the LVS as a new form of entrepreneurial state that originated around 2008 and has, since the 2010s, progressively become a pivotal driving force of urban entrepreneurialism across China. The LVS combines reinvigorated socialist political approaches with innovative financial instruments, transforming local governments into venture-capitalist-like agencies. These governments actively invest in technology incubators and startup ventures, aiming to simultaneously bolster GDP growth, foster indigenous innovation and address social inequities. While there is a commonality in this venture-capitalist mindset, the ideas and practices associated with the LVS are notably varied, characterized by ad hoc and at times conflicting actions taken by a diverse array of institutions and individuals across different levels. The complexity of the LVS, with its multitude of actors and intricate power dynamics, often results in a divergence between high-level policy intentions and on-the-ground realities.

Our conceptualization of the LVS resonates with recent theoretical advancements in urban geography. In Europe, where modern nation-states first emerged alongside industrial capitalism, social theorists such as Gramsci (1971) and Foucault (2009) emphasized the dynamic and dispersed nature of state power within society. This rich intellectual tradition has enabled anglophone geographers to theorize the complexities and contradictions inherent in the capitalist state, notably during the post-Fordism debate in the 1990s (Jessop, 1990). However, as much of East Asia was still in the early stages of industrialization, few applied these ideas to study Asian societies beyond Japan (Peck and Miyamachi, 1994).

More recently, as China began rapidly industrializing, geographers have adopted and expanded this framework to explore the increasingly complex state-society relations in the country, challenging the stereotype of the monolithic, authoritarian state often portrayed by Western media (Gao *et al*., 2019). In particular, Wang and Tan (2020), through introducing the concept of the 'prosaic state', underscored the intricate interplay between government institutions and societal actors in Chinese cities. This perspective acknowledges that the state is shaped in multifaceted ways through everyday practices, which often lead to unintended and varied outcomes. We embrace this view and assert that China's urban entrepreneurialism post-2008 is a vibrant and interactive process, fueled by the interplay of various institutions and individuals.

To fully grasp the nature of the LVS, it is imperative to consider its distinct spatiotemporal context. We argue that China's LVS is a response to the prolonged global economic crisis since 2008, a phenomenon that has been witnessed worldwide. In the northern Atlantic regions, the 2008 GFC drastically reduced municipal revenue and thus paved the way for widespread austerity urbanism (Peck, 2017; Lauermann, 2018; Cochrane, 2020). A significant manifestation of this global shift is the exponential growth of entrepreneurial spaces, a trend well documented in research (Lorne, 2020; Zukin, 2021). However, as various scholars emphasize, these Northern experiences fall short of encapsulating China's urban entrepreneurial surge, which is based on its distinct historical and developmental trajectory (Zhou *et al*., 2019; Lin, 2021; Wu *et al*., 2022).

We ground our analysis in this body of work to structure it around three central themes: governance structure, the impetus behind financialization and the stage of development. Through these lenses, we acknowledge the instrumental roles an array of actors—from central and local governments, state and private enterprises to international and domestic capital, alongside entrepreneurs from diverse backgrounds—play in shaping the LVS. These dimensions also offer a comparative framework that enables us to position China's urban entrepreneurialism within a global context. This approach allows us to contribute to ongoing efforts to decenter urban theories (Cox, 2016; Shin, 2021; Robinson *et al*., 2022). Specifically, we align ourselves with Shin's (2021) call for 'theorizing from the Global East', asserting that China's distinct urbanism provides 'a more profound means ... to situate our enquiries in the web of historic conjunctures and incorporate relational perspectives on spatial connectedness in the narratives of development that cities of the Global South/East have treaded' (*ibid*.: 4).

– Governance structure

China's governance structure is based on a dynamic balance between a paternalistic central state making long-term plans and various relatively autonomous local actors, including local government and market forces that focus more on short-term goals. Described as either 'centralized minimalism' (Huang, 2019) or 'planning centrality, market instruments' (Wu, 2018), this seemingly contradictory governance structure has roots dating back to imperial times. Periodically, the governance balance tends to oscillate between centralization and decentralization, reflecting the country's response to various internal and external challenges (Zheng and Huang, 2018). The LVS, we argue, emerged post-crisis to tackle these persisting central–local and state–market tensions.

The diversity of governance structures in global urbanism has not been extensively studied. Notable exceptions include a special issue published in this journal, which illuminated the distinct central–local relations in the United States and Western Europe (Cochrane, 2020). As we demonstrate, China's centralized minimalism differs markedly not only from the more decentralized political systems in similarly large countries such as the United States but also from smaller countries such as South Korea, where the central (developmental) state commands more power (Shin and Kim, 2016).[2]

From the 1980s to the 2000s, China underwent a phase of governance decentralization as it sought to overcome the economic stagnation brought about by state socialism. With the collapse of the Soviet Union and warming United States–China relations, the central government, in a move to prioritize economic development, embraced a more open stance toward global capitalism, diminishing its emphasis on technological independence. This shift led to reduced funding for state-owned research institutions, compelling them to seek financial support through market-driven operations (Zhang and Lan, 2023). The decentralization of the innovation system transformed state-owned enterprises (SOEs), universities, research institutes and local governments into agents tasked with achieving the central government's diverse developmental goals (Oi, 1992; Walder, 1995; Zhou, 2018). This transformation gave rise to a distinct form of 'neoliberal urbanism' (He and Wu, 2009) characterized by local governments collaborating with real-estate developers, propelled by funds from land leasing for infrastructure development.

While this model significantly boosted local GDP, it also gave rise to a host of issues, such as limited technological innovation capacities and growing social inequalities, which alarmed the central government (Zhang and Lan, 2023). In response, from around 2008 onwards, the central government began to reassert its control over local administrations, urging them to tackle social inequalities through initiatives such as shantytown redevelopment and rural revitalization (Shin, 2016; Wu, 2018; He *et al*., 2020; Lin, 2021; Wu *et al*., 2022) and to foster indigenous innovation through the creation of new technological and entrepreneurial hubs (Zhou, 2015; He and Wang, 2019; Zhang and Wu, 2019; 2021).

The LVS emerged in this shift toward a more centralized governance structure. Under the new central directives aiming to balance economic growth with broader societal goals, local governments were encouraged to innovate through new policy instruments. Notably, we observe a trend of repurposing old land finance mechanisms

2 We critique the simplistic binary often portrayed in anglophone media that contrasts authoritarianism with liberal democracy. The evolution of China's LVSs post-2008 reflects more a strategic response to unique internal and external challenges than an inherent characteristic of the political regime. This perspective aligns us with economic geographers who problematize the concept of state capitalism (Zhang and Lan, 2022; Alami and Dixon, 2023).

to fund riskier entrepreneurial ventures, with the goal of simultaneously fostering indigenous innovation and social equity.

While the emergence of these new initiatives has been recognized by urban geographers, there has been insufficient attention to the inherent tensions between their competing goals—specifically, the tension between promoting technological innovation, which often requires concentrating resources to support a select group of elite entrepreneurs and advancing social equity, which necessitates a more equitable distribution of capital across a broader entrepreneurial base. We argue that this oversight can be attributed to a lack of interdisciplinary dialogue between innovation and social equity scholarship in the context of urban China, as well as to problematic conceptualizations of the state. By treating the LVS not as a monolithic entity but as a complex network of interacting institutions and individuals across different scales, we aim to bring these tensions to light and provide a comprehensive analysis.

– The driving force of financialization

We draw on Aalbers (2016: 3) here in our conception of financialization as a process where 'the state and public sector … [become] dominated by financial narratives, practices, and measurements'. It is crucial to understand the financialization of the LVS within its historical and geographical context. Traditional regional studies often highlight private venture capital as the primary financial driver of high-tech industries, casting governments in a supporting role (Saxenian, 1996). Silicon Valley served as a prime example of this theory. However, economic geographers and innovation researchers have contested this view, uncovering the significant investments made by governments in major technological breakthroughs and their crucial role as the foundational investors in industrial districts such as Silicon Valley (Markusen, 1999; Mazzucato, 2015).

State-led financialization in China shares similarities with the US model, with governments in both countries taking on roles as both regulators and investors. A key policy objective in both nations is technological innovation. However, the sources of financial power in the Chinese and American states differ markedly. In China, the central government exerts control over the financial sector, owns the country's largest banks and consequently stands as the main shareholder and investor in the national economy (Wang, 2015; Chen and Rithmire, 2020). Unlike most countries where private land ownership prevails, the majority of land in China is owned by its local states. Massive urbanization led by local states has become a hallmark of China's industrialization over the past three decades (Hsing, 2012). The amalgamation of the state-led financial sector and public land ownership endows local governments with a more significant role in the market economy than elsewhere (Pan *et al*., 2021; Wu, 2021).

The LVS in China can access substantial capital through methods beyond conventional policy tools, such as tax incentives and land grants. It can leverage significant resources through land-collateralized bonds and by establishing its investment branches. Chengtou (Urban Investment and Development Corporations or UIDCs) play a crucial role in land finance (Feng *et al*., 2021). Given that Chinese budget laws prevent local governments from borrowing directly from financial markets, UIDCs act as intermediaries, raising funds for urban development by using public lands and other state assets as collateral to issue corporate bonds on behalf of local authorities (see Wu, 2021: 7–9).

Initially focused on infrastructure and real-estate development during the 1990s and 2000s, UIDCs evolved in the 2010s to become local government financing vehicles (LGFVs) that diversified their investments across various industries. Prominently, some LGFVs established GGFs that concentrate on strategic investments in long-term, high-risk tech industries (Zhang and Lan, 2023). The ongoing US-China tensions, the Covid-19 pandemic and recent regulatory measures targeting IT giants in China further augmented the LVS's financial power. As we illustrate in this article, when foreign capital becomes more cautious, GGFs become a significant source of venture capital for high-tech startups.

– Developmental phase

The LVS thrived in a unique phase of China's economic trajectory, in stark contrast to the austerity urbanism experienced in Western developed economies.[3] China experienced rapid credit expansion and implemented unprecedented government stimulus programs between 2008 and 2015, marked by the State Council's 4-trillion-yuan stimulus package aimed at job creation, infrastructure development and funding indigenous innovation (Wu, 2021). A significant portion of this, 2.2 trillion yuan, was channeled to local governments via state banks, transitioning the economy from capital scarcity to capital abundance. This shift particularly affected LVSs on the east coast, fostering a willingness to embrace risk and embark on ambitious development projects. The scale and scope of urban entrepreneurialism in China surpassed that of its Western counterparts. The recent deceleration in China's economic momentum, coupled with the escalating debt crisis among local governments, could lead to a new form of local state—a point we shall revisit in our concluding discussion.

The developmental phase of urban entrepreneurialism is often understated in urban geography, the last decade being marked by a focus on post-2008 austerity urbanism primarily within Western developed economies (Peck, 2017; Lauermann, 2018). However, outside of North America and Western Europe, austerity urbanism is not a predominant issue. In East Asian emerging economies such as China and South Korea, local states have actively pursued aggressive developmental agendas post-2008 (Shin and Kim, 2016; Robinson *et al*., 2022). These regions, which are characterized by higher growth rates and/or robust state sectors, enable local states to secure public funds and maintain a stronger negotiating position vis-à-vis private capital in urban (re) development projects. A Euro-American-centric theory of urban entrepreneurialism risks obscuring the recognition and understanding of diverse and often divergent global trends and experiences.

Overall, our analysis captures the complex rationales behind the policy making of local governments, the negotiated processes of policy implementation and the contingencies inherent in policy outcomes. We argue that the LVS is an ongoing experiment of renegotiation between central and local states at a transitional moment of the Chinese economy. LVSs, using a financialized approach centered on venture capital investment, aim to reconcile contradictions between technological innovation and social inequalities in Chinese cities. Under a central-state-dominated financial system, local states in post-crisis China have followed new central initiatives to reinvent the land financing regime to fund new priorities. Yet, tensions within the central state's many goals persist in actually existing entrepreneurial space-making in Chinese cities. We show how the economic logic of state-led financialization and the different extra-economic logic of new state mandates have shaped China's distinctive LVSs and the experiences of differently situated entrepreneurs. In the section that follows we focus on the ZGC area to explore the historical co-evolution of China's innovation system and urban space and trace the genesis of the LVS.

The co-evolution of the innovation system and urban space in ZGC

As a hub for research institutions and a testing ground for urban policy, ZGC's innovation system and urban space have continuously shaped one another.

3 The stimulus programs implemented in the United States and the European Union post-crisis notably differed from those in China, as they did not specifically target urban development projects and did not result in credit expansion for their cities. For an in-depth analysis of austerity urbanism, refer to the works of Peck (2017) and Lauermann (2018).

– Centralization and socialist experiment (1950s to 1970s)

ZGC's status as China's primary base for indigenous innovation can be traced to the 1950s, when the nation's nascent socialist regime adopted a techno-nationalist approach to development that prioritized technological independence (Zhou, 2007). In a way, it was a fix for the more decentralized governance structure under Qing and nationalist regimes that had struggled to industrialize China's economy and defend it against Western and Japanese imperialism. To achieve this key goal, the Chinese state created a centralized innovation system that amassed resources from across the country to spearhead development in select strategic defense industry technologies (Zhang and Lan, 2023). ZGC was chosen as the center of this innovation system and the site of some of China's premier research institutions, including Peking University, Tsinghua University and the Chinese Academy of Sciences (see Figure 3). Despite political upheavals such as the Great Leap Forward (1958–1962) and the Cultural Revolution (1966–1977), which aimed to strip these institutions (danwei) of their privileges, they remained under direct central government management, and their staff enjoyed substantially better social welfare benefits than the majority of the population.

– Decentralization and developmentalism (1980s to the mid-2000s)

In the 1980s, following the state's decision to promote economic development and enter the global market, ZGC reemerged as a pioneer in urban entrepreneurialism. First-generation ZGC entrepreneurs were scientists and engineers in state-owned institutions. Emulating Silicon Valley's industry-university partnerships, they commercialized skills and technologies accumulated by their parent work units during the socialist era to jumpstart the market economy (Segal, 2003; Ling, 2011).[4] New sources of income flowed to parent research institutions and local governments, which granted the new enterprises generous tax deductions (Ling, 2011). By the mid-1980s, ZGC's Electronic Street had come to epitomize China's emerging electronics industry.

This decentralized system excelled in growing the economy but was less successful in promoting technological independence. After the political and economic chaos of the Cultural Revolution, China's economy suffered from severe capital scarcity. Although privatization and financialization provided plenty of 'easy-money' opportunities for state and private companies, there was little 'patient capital' interested in investing in long-term, potentially risky indigenous innovation (Zhou *et al.*, 2016). When initial inventions were superseded in the 1990s, established firms in ZGC increasingly relied on imported technologies (Cao, 2004). Most first-generation tech firms went bankrupt when domestic and international competition intensified. Only a few—such as the Chinese Academy of Science's spinoff Legend (renamed Lenovo) and Tsinghua University-affiliated Unigroup—survived to become market leaders.

In 1998, Electronic Street underwent its first makeover, when ZGC was officially designated as China's first national-level High-Tech Experimental Zone (HTEZ). Part of the central state's new Torch Program, HTEZs were 'originally designed to activate and upgrade *domestic* R&D capacities for commercial uses' (Heilmann *et al.*, 2013: 903, original emphasis). Unlike the earlier central-government-funded 863 Program, HTEZs were expected to be financially autonomous once their initial startup money ran out. However, immediate budget pressures prevented local governments from investing in them over the long term. To compensate, many HTEZs deviated from R&D to focus, instead, on export-oriented, low-value-added manufacturing and real-estate development to turn quick profits (*ibid.*).

4 Given this historical context, numerous initial tech firms, including Lenovo, exhibited uncertain ownership structures, which led to public allegations of 'appropriating state assets' (Segal, 2003). Nevertheless, after years of reforms aimed at clarifying shareholder structures, startup companies established in the 2010s and 2020s presented significantly more transparent equity structures. As a result, these newer entities no longer belonged to the ambiguous category of 'minying' enterprises, as Segal suggested.

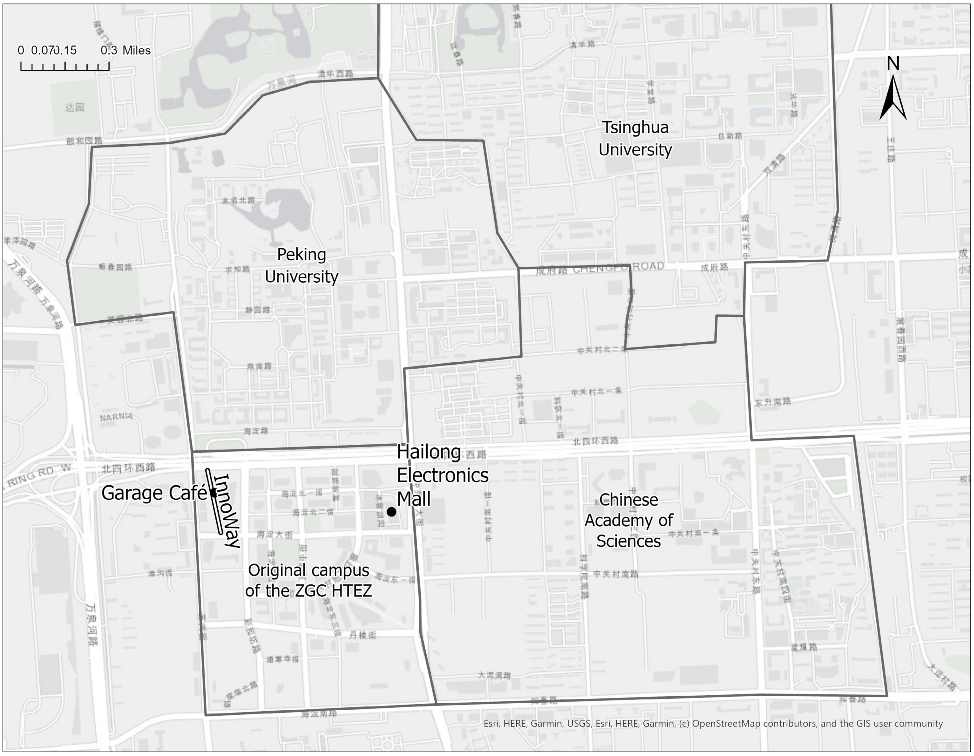

FIGURE 3 ZGC's main campus in Haidian (map drawn by Tu Lan)

Spearheading technological innovation was a lofty goal, but the city of Beijing's immediate incentive for launching this HTEZ was to earn revenue from land leases, acquire state subsidies and investment, grow its tax base and further longstanding motives such as job creation (Deng and Huang, 2004). In maximizing benefits from its HTEZ, the Beijing Municipal Government caught 'zone fever'. Following the 1994 tax reform that facilitated local states' venture into land finance, ZGC's HTEZ expanded to include two 'experimental zones' on the northern and southern fringes of the city. In 1999, when ZGC was named a national-level science park, answering the Jiang-Zhu administration's call for 'invigorating China through science and education strategy' (*kejiao xingguo zhanlüe*), two new campuses branched off the rebranded ZGC Science Park (Zhou, 2007). With five additional campuses on the outskirts of the city in early 2006, ZGC Science Park was reinvented once again as a high-tech 'platform' consisting of 'one district and ten campuses' not confined to a single geographic area (see Figure 4).

Rather than selling the lands to private contractors, the Haidian District Government relied on UIDCs for infrastructure construction. Some of ZGC's biggest UIDCs were established in this period, including Haidian Property Group (HPG) under the Haidian District (in 1992) and Beijing Science Park Construction Corporations under the Beijing Municipality (in 1999). Once construction was completed, buildings were leased or sold to other state and private firms. Consequently, political and commercial interests converged to maximize the value of ZGC real estate. Soon after, multinational corporations (MNCs) with deep pockets established Chinese corporations and SOEs, and highly profitable electronics malls began squeezing out the small and medium-sized high-tech startups that had fueled ZGC's innovation engine (Ling, 2011).

The Torch Program also oversaw the first incubators in ZGC in the 1990s. Song Jian, then director of the State Science and Technology Commission (SSTC, renamed

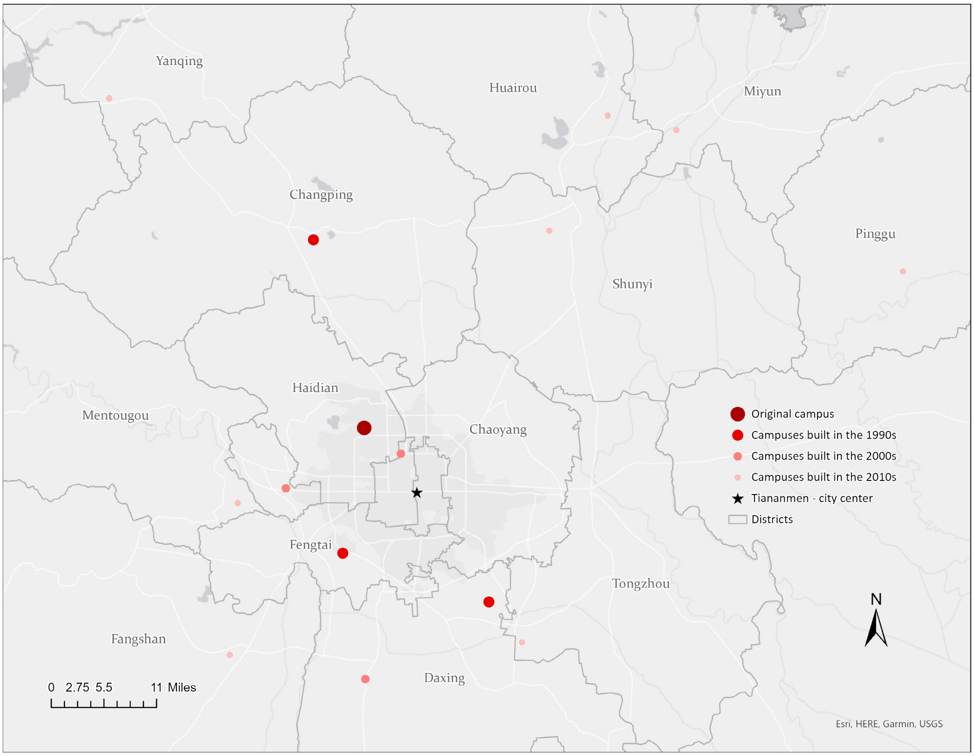

FIGURE 4 Expansion of ZGC campuses (map drawn by Tu Lan)

the Ministry of Science and Technology in 1998) and designer of the Torch Program, saw incubators as a key vehicle for promoting indigenous innovation (Yan, 2017: 16). Partially inspired by the publicly funded incubators flourishing in the US, this initiative was supported by the United Nations Commission on Science and Technology for Development (Yan, 2017: 17). Many early incubators were born out of this China–UN collaboration and run by government institutions or SOEs.

Like the HTEZs in which they were usually based, state-owned incubators found themselves caught between their stated mission of championing technological innovation and their real business—boosting economic growth as measured by GDP. Services provided by incubators were largely confined to discounted or free office space. In most cases, incubators were simply conduits for distributing state subsidies.

The expansion of global venture capital in the 2000s barely improved the innovation capacity of China's incubators. Shortly after the dotcom bubble and China's entry into the World Trade Organization in 2001, the country's first privately owned incubator opened on one of ZGC's satellite campuses (Chandra and Chao, 2011). Although universities, research institutes and private and foreign companies soon joined in the fray, ownership diversification did not result in substantial changes to China's incubator industry, as most incubators ended up becoming real-estate projects leasing office space. Although foreign capital did invest in some of ZGC's most innovative companies (e.g. Sina and Baidu), based on the 'copy-to-China' principle, most MNCs were more interested in building manufacturing facilities and marketing departments than in cultivating Chinese R&D potential (Zhou *et al*., 2011). China's efforts to promote indigenous innovation capacity continued to be overshadowed by its export-oriented, investment-led developmental model.

As bad as this was, GDP-driven urban entrepreneurialism was even worse at another stated mission: safeguarding social equity (Naughton, 2017). During this period, individual entrepreneurship was the primary and sometimes only way for upward social mobility for non-elites in ZGC. As China developed into the world's largest consumer electronics manufacturer in the 2000s, ZGC became home to some of its most famous 'electronics malls', such as Hailong, and to the growing number of 'grassroots' IT entrepreneurs in these malls (see Figure 3). Many were migrant workers from rural China who had started out as small vendors as electronics malls sprouted in the area after the late 1990s (Lu, 2007). Rapid expansion of these malls in the 2000s—another product of local officials' pursuit of GDP-driven development—helped generate new employment and entrepreneurial opportunities. This conjuncture facilitated upward social mobility for non-elite entrepreneurs in a period otherwise defined by developmentalism and declining social egalitarianism.

– Recentralization and the LVS (mid-2000s onward)

The 2008 GFC marked an alarming moment for China's policymakers who had been aware of the limits of the decentralized innovation system since the 1980s. The crisis caused massive unemployment in the export sector and exposed China's weak position in global value chains. More than ever, the central state felt an urgent need to break away from an unsustainable development model centered on low-value-added exports and fixed asset construction (Chen and Naughton, 2016; Zhang and Lan, 2023). Meanwhile, rapid economic growth, under-investment in social welfare and rising housing prices in the previous two decades generated considerable levels of social discontent and made China's Gini coefficient one of the highest in the world (Xie and Zhou, 2014). Responding to these problems, the central state decided to move away from its GDP-driven growth model and allocate more resources toward promoting indigenous innovation and improving social equity. The trend started with the Hu-Wen administration (2003–2013) and accelerated under the Xi-Li administration (2013 to present), especially after the US–China trade war.

To achieve its goals, the central state partially recentralized the innovation system and guided local states toward new priorities (Zhang and Lan, 2023). ZGC once again epitomized the new urban landscape emerging from these experiments: the new entrepreneurial space of coworking cafes, technology incubators and maker spaces. In March 2009, three months after Premier Wen Jiabao visited ZGC, the State Council officially designated it as China's first National Indigenous Innovation Demonstration Zone (*zizhu chuangxin shifan qu* or NIIDZ). ZGC became an experimental site for new state-led initiatives to commercialize science and technology development, which, if successful, would be rolled out nationally. These included establishing an incentive mechanism for university-based researchers to commercialize their research output, better startup access to private and state venture capital, expanded government procurement of high-tech products and strengthened protections for intellectual property. The central state also established GGFs to invest in 'emerging strategic technologies', such as semiconductors and electric vehicles, and encouraged local governments to set up funds of their own (Pan *et al.*, 2021). To better facilitate these policy changes, local governments in Haidian and ZGC expanded the business of existing UIDCs, such as HPG, and created new LGFVs, such as ZGC Development Group (2010), to target emerging technologies.

To redress social inequalities—an issue ignored by local governments for too long—the central government reinvented a set of discourses and policies dating back to the era of state socialism. Besides addressing affordable housing and shantytown redevelopment, local states were mobilized to build incubators and coworking spaces, especially after the MEI campaign was announced in 2015. Unlike the Torch Program's focus on attracting elite talents, the new campaign was imbued with a more participatory,

TABLE 1 Three periods of innovation systems and urban space in ZGC

	Socialist experiment 1950s—1970s	**Developmentalism 1980s—mid-2000s**	**Local venture state Mid—2000s onward**
Central priorities	Techno-nationalism and social egalitarianism	GDP-driven economic development	Indigenous innovation and social equity
Governance structure	Centralized	Decentralized	Partly recentralized
Level of financialization	Low	Medium	High
New policy tools and institutions	State-owned research institutions and mass-line politics	Administrative subcontracting, HTEZ, land finance and UIDC	LGFV, GGFs, NIIDZ, and MEI
Distinct landscapes in ZGC	Walled danwei	ZGC Electronic Street and Hailong Electronics Mall	Garage Café and InnoWay

SOURCE: Authors' research

if not a more egalitarian aura (Wang and Tan, 2020). It encouraged people to participate in entrepreneurship regardless of socioeconomic status. This resembled the socialist techno-nationalism and mass-line politics of the Great Leap Forward. The central state hoped that incubators and coworking spaces would create opportunities for grassroots entrepreneurs to reduce unemployment rates caused by the protracted global economic crisis and the slowdown of China's economy.[5]

As China's innovation hub, ZGC has always been a state project. From socialist danwei to market-oriented HTEZs to new entrepreneurial spaces, ZGC's landscapes of innovation reflected the changing priorities of the central state and subsequent realignments of central–local relations (see Table 1). Each of the three phases was a response to problems of the previous phase. The post-2008 rise of the LVS must also be contextualized in this historical trajectory. In response to the 2008 crisis, the central state partly recentralized power, imposing more restrictions on local officials and reorienting local states toward promoting indigenous innovation and social equity. The central government also scaled up the level of financialization and asked local governments to redirect land finance toward new initiatives.

At this particular conjuncture, the LVS emerged as a new model for urban development in China. Local governments, blending new financial tools with old-fashioned mass-line politics, increasingly worked like venture capitalists investing in social entrepreneurship and coworking spaces, hoping to simultaneously achieve developmental, techno-nationalist and egalitarian goals. However, as the following case studies of the Garage Café and InnoWay will show, LVSs remain an ongoing experiment constituted by both state and non-state actors. Its tasks are far from complete, and its impacts on ZGC's innovation system and urban spaces are full of contradictions and dilemmas.

The Garage Café and InnoWay

Established in 2011 as a café-style entrepreneurship incubator and coworking space, the Garage Café was known early on as an open, tolerant, communitarian environment for grassroots entrepreneurs with little social, cultural or economic capital. An early icon of the MEI campaign, it was the blueprint for a nationwide explosion of incubators and coworking spaces. Three years later, the Haidian District Government and the ZGC Administrative Committee gentrified the neighborhood surrounding the Garage Café to highlight China's new innovation system. InnoWay is now a 200-meter-long street at the heart of ZGC. It features a complex of coworking spaces and incubators, financial and media institutions, as well as government exhibition and

5 Other central initiatives also aimed for 'common prosperity', such as the high-profile Targeted Poverty Alleviation Program between 2014 and 2020.

FIGURE 5 InnoWay street view (photo taken by Lin Zhang, March 2016)

service centers (see Figure 5), and the Garage Café is now irrelevant. The trajectories of the Garage Café and InnoWay in the 2010s evince the contradictions of China's new urban entrepreneurialism and emerging LVS.

The Garage Café—ZGC's first café-style incubator and coworking space — was founded by Su Di in 2011. Su, born to an ordinary family in the 1970s, worked his way up from entry-level sales to become a significant, well-connected investor in China's IT industry by the late 2000s (Su and Wang, 2013). Su's experiences as a self-made professional and IT entrepreneur instilled in him a strong affinity for non-elite entrepreneurs with little in the way of family connections, academic credentials or technological expertise.

Inspired by the Hewlett-Packard Garage in Silicon Valley, Su saw his Garage Café as 'a cultural symbol that represents values such as tolerating failure, encouraging tinkering, and granting individuals the freedom to explore their own passions—precisely what's missing in Chinese society today' (interview with Su Di, Beijing, 13 July 2016). He rented a low-cost 800-square-meter space on the second floor of an inconspicuous hotel in what was then known as Haidian Book City (HBC)—a block of bookstores and small businesses primarily catering to nearby university professors and students. Unlike the increasingly fancy coworking spaces that followed, the Garage Café was simple and down-to-earth (see Figure 6). Jun, a game developer and former Garage Café member who moved his growing staff into a bigger office in 2014, explained why he liked it there:

> Given my humble background, I would never have had the courage to strike out on my own in my twenties if not for the resources that the Garage Café provided me. The Garage Café offered me so many things: low-cost working space, collaborators, training, emotional support, free media publicity and investment (interview, Beijing, 20 July 2016).

FIGURE 6 Inside the Garage Café (photo taken by Lin Zhang, March 2016)

In addition to leveraging the labor of coworkers, Su and his shareholders capitalized on their own personal networks to channel investors, media, commercial resources and political support to the Garage Café in a virtuous cycle that attracted more coworkers and sustained both the community and its ideals. Taking advantage of the post-2008 credit expansion and subsequent venture capital boom, the Garage Café and its patrons reinvented existing resources and networks to construct a new model of innovation and entrepreneurship in China.

The Garage Café's efforts to support early-stage entrepreneurs of all backgrounds and its ethos of participation, open sharing and mutual support matched the dual desires of local governments to restructure the economy through financialization while simultaneously boosting employment and redressing social inequalities via the mobilization of grassroots entrepreneurship. By the end of its first year, the Garage Café had become one of the first private companies officially recognized by Beijing's Municipal Government as an 'innovative incubator'. The label made the Garage Café eligible for subsidies and state support that had up to then been reserved for state-owned high-tech incubators. The municipal government started subsidizing the Garage Café's rent. More importantly, it streamlined bureaucratic processes to lower the threshold of entry for small IT entrepreneurs: the average time it took to register a business dropped from two months to two weeks and the registration fee dropped from 15,000 to 10,000 yuan. The ZGC Administrative Committee also set up a special 'fast-track' business registration channel for entrepreneurs based at the Garage Café.

The media craze surrounding the Garage Café soon led to an increase in official visits. In 2011, numerous local and central government politicians—including the China Banking and Insurance Regulatory Commission's Chairman Guo Shuqing and then-Communist Party Secretary of Beijing Guo Jinlong—stopped by the Garage Café. Like model- and hero-emulating campaigns during the state-socialist era, such as 'learn from Dazhai in agriculture and learn from Daqing in industry', these so-called 'inspection tours' (*zoufang*) are often laden with political meaning and facilitate inter-local policy mobility (He *et al*., 2018; Zhou, 2021). Once marked as a 'model site' pioneering the state's economic restructuring reforms, the Garage Café became an example to be emulated nationally.

Su, riding on Garage Café's popularity, suggested in 2013 that the local government transform HBC into a street of incubators for early-stage IT startups. This dovetailed with the municipal and district governments' desire to gentrify ZGC using the central government's economic restructuring policy. By the late 2000s, HBC's brick-and-mortar bookstores were losing customers to online competitors. As shops struggled, rents stagnated and HBC became increasingly desolate, the Haidian District Government took Su's advice. In 2013, HPG and TusPark (a company affiliated with Tsinghua University) formed a consortium to gentrify HBC and completed its work a year later. InnoWay showcased China's drive for indigenous innovation and determination to help entrepreneurs of all backgrounds. The media frenzy reached a climax in 2015, when Premier Li Keqiang toured the street as part of his mobilization campaign for the new MEI and Internet Plus initiatives.

Still, the state's involvement in transforming InnoWay into an icon of mass innovation and entrepreneurship via campaign-style mobilization of resources—media, financial capital, talent, etc.—turned out to be a mixed blessing. The Garage Café, for example, certainly benefited from state policies, subsidies, political endorsements and media exposure. All this support had helped sustain the Garage Café as a social platform fostering mass innovation and grassroots entrepreneurship. However, as time passed, its political and publicity functions—receiving Chinese and international visitors and participating in government-sponsored events promoting technological innovation and venture capital investment—started to overshadow its founding mission of accommodating aspirant entrepreneurs with no technical background but vacuous dreams of hitting the jackpot. Pressure from shareholders to monetize the Garage Café for profits drove Su, its founder, to quit in 2014. By 2019, when the national mass entrepreneurship and innovation craze had cooled down, the Garage Café was concentrating resources on its investment wing and had outsourced the operation of its coworking space to a real-estate management company.

Despite high expectations, InnoWay's initial record in spearheading technological innovation was disappointing. Its mixture of incubators, coworking spaces and government service centers birthed and nurtured a large number of startups during the peak of InnoWay's popularity between 2014 and 2017. Early on, promising tech startups that would later grow into unicorns, made their debut on InnoWay, for instance, Didi, China's equivalent of Uber, and Zhihu, the Chinese version of Quora. But most startups were in frothy sectors such as online-to-office (O2O) platforms or peer-to-peer (P2P) finance platforms: initial valuations were buoyed by the deregulation of China's financial sector after 2012 and by excess liquidity in the global financial market. Most of these contributed little to the nation's urgent quest for independence in strategic technologies. Following the Chinese stock market crash in late 2015, the majority evaporated after burning through their funding.

The Haidian District learnt from previous setbacks, shifting its investment strategy and concentrating on 'hardcore technologies'. In a bid to enhance the management of InnoWay and its state venture capital, HPG established a subsidiary in 2017, named InnoWay Technology Service Inc. (ITS). ITS quickly rose to prominence as one of China's pioneering local GGFs. Between 2020 and 2023, ITS forged partnerships with two private equity funds, collectively investing in 11 startups across diverse industries, including semiconductors, robotics, artificial intelligence, electric vehicles and biomedicine (Tianyancha, 2023). As geopolitical tensions led to a withdrawal of foreign, particularly American, capital from China, GGFs such as ITS became crucial for numerous entrepreneurs. The founder of a biomedical startup based in ZGC shared their experience:

> The venture capital landscape in China has completely changed over the past three years. Back in 2018, my company secured angel funding from American investors, but that avenue is now closed to us. In order to continue our R&D efforts, we've entered into negotiations with local GGFs, who are showing a strong interest in investing (interview, Beijing, 10 June 2023).

In the policy framework set forth by the central state, the promotion of indigenous innovation and the enhancement of social equity are both highlighted as crucial goals for local governments. However, the practical implementation of these policies has often led to a prioritization of indigenous innovation, sometimes at the cost of social equity. As a consequence of the zoning policy prioritizing high-tech startups, non-high-tech businesses, mostly small privately owned bookstores and restaurants, were driven out of InnoWay. Although the majority left willingly owing to rising rents after gentrification, one refused to leave. The only 'nail house' (*dingzihu*) on InnoWay, T's genealogy and biography business captures the selective exclusion of the LVS.

T was a typical grassroots entrepreneur that the LVS was supposed to empower. He had grown up in a small county in central China during the Cultural Revolution and had subsequently been a village school teacher, a freelance journalist and an insurance salesman. He moved to Beijing in 2005 to join the booming IT industry as a content creator. After several failed attempts at IT entrepreneurship, his business, which compiled family genealogies and helped retirees publish their autobiographies, struck it lucky. To accommodate his growing staff, T moved his business from an old factory to HBC in 2010 and renovated the store in 2014 when the street was being transformed into InnoWay.

To his surprise, things went downhill almost immediately. With the market value of properties on InnoWay appreciating rapidly, his immediate landlord—a private real-estate company—started pressuring him to move out. T was told that his business didn't align with InnoWay's market positioning and brand image as a street for IT entrepreneurship, startup incubation and financing. T refused to budge and attempted to reinvent his company as an online business, hiring a couple of software engineers to work on an app and setting up banners with buzzwords such as 'Internet Plus' and QR codes.

When Premier Li Keqiang visited InnoWay in 2015, T took all of his employees onto the street to greet him. As Li drew near, T pushed to the front of the sea of spectators to shake hands with him, telling him that he was digitizing and modernizing traditional Chinese family genealogies on InnoWay. At the peak of the MEI campaign in the fall of 2015, T even transformed part of his office space into an incubator for IT entrepreneurs.

Business hit rock bottom in December 2015 when the landlord quadrupled his rent with no prior notification, citing the dramatic increase in property value on InnoWay over the past year. 'Their real intention', T speculated, 'was to pressure me to move out so that they could rent the space to a deep-pocketed IT company for a higher price' (interview, Beijing, 2 August 2019). Tensions between T and his landlord escalated the following year when T refused to pay the additional rent and sued his landlord for compensation. To retaliate, his landlord countersued and hired thugs to break into his store and seize his property.

Caught between its dual missions to promote indigenous innovation and social equity, the local governments were ambivalent in the dispute. In 2014, when construction on InnoWay was complete, a team of delegates from the ZGC Administrative Committee tried to convince T to leave. When T and his landlord sued each other, the local governments remained neutral. But in 2017, when the municipal court determined that T had to leave, the local governments empathized with T's situation and convinced the landlord to cancel some of T's debt.

From the Garage Café to InnoWay, the transformation of urban entrepreneurial space in ZGC demonstrates the new mechanisms and rationales of the LVS, where extra-economic priorities coexist with financialization in driving urban regeneration.

Through the transformation of HBC into InnoWay, local officials intended to adapt to the state's new standards of local cadre performance by killing three birds with one stone in their jurisdiction: promoting economic development, indigenous innovation and social equity. However, the rise and fall of promising new entrepreneurial infrastructure and T's own story reveal the challenges the state faces in striving for a more balanced growth model, the limits of the LVS in its current form and the continued tensions among longstanding goals.

Discussion and conclusion

In this article we introduce a novel framework for conceptualizing the evolving landscape of urban entrepreneurialism in China. It emerges from a dynamic experiment leveraging financial instruments to balance economic development, technological innovation and social equality. We focus here on the ZGC area and its burgeoning entrepreneurial spaces to explore how this new entrepreneurialism, embodied by the LVS, necessitates examination through three analytical lenses: governance structure, financialization's driving force and the developmental phase.

The LVS is a contemporary response to China's distinct central–local relations since 2008, representing a spatiotemporally specific solution to the previous model of the neoliberal-entrepreneurial state (He, 2019; Wu, 2021). Driven politically and economically by central mandates promoting indigenous innovation and wealth redistribution, local officials in Haidian District and ZGC spearheaded the transformation of an old neighborhood into vibrant entrepreneurial spaces. This rapid transition was facilitated by a reconfigured land finance system and its key practitioners—UIDCs such as HPG and GGFs such as ITS. The LVS's risk-taking nature was underpinned by China's economic growth rates, which supported credit expansion and fostered a culture of mass entrepreneurship.

Our objective extends beyond merely diagnosing the urban development issues associated with ZGC. Instead, we utilize ZGC as a prism to scrutinize and map out the advent of the LVS in China, identifying it as a prevalent national trend. The 2010s marked the emergence of the LVS across numerous Chinese cities. Confronted with dwindling profits from real estate, local governments nationwide underwent a transformation, actively channeling investments toward 'hardcore technology'. The US-China trade tensions, the central government's fiscal restraint in the real-estate sector and its regulatory clampdown on 'big techs', coupled with the Covid-19 pandemic, all expedited this shift. Cities such as Hefei and Wuhan also gained prominence for their venture investments in leading startups such as Nio and YMTC (Hancock, 2022).

By highlighting the historical conditions for the LVS, we underscore the necessity to rethink urban entrepreneurialism from the global East (Shin, 2021). East Asia, and particularly China, does not conform to traditional global North and South categorizations. Although the rise and fall of the Garage Café bears similarities with WeWork's trajectory, and InnoWay mirrors innovation spaces in cities such as London and New York, China's intergovernmental dynamics, reliance on land finance and unparalleled economic growth over the past 30 years differ significantly from its Western counterparts. The centralized banking system combined with its public land ownership also makes China stand out in the developing world.

Furthermore, in this article, we join efforts in urban geography to advocate for a nuanced understanding of the state as a dynamic assemblage of institutions and individuals operating at various scales (Wang and Tan, 2020). It presents the LVS not as a monolithic entity, but rather as a diverse collective of central and local officials, international and domestic firms, as well as entrepreneurs from myriad backgrounds, to acknowledge that contradictory policy outcomes are an inherent part of such a complex system. By placing the LVS at the intersection of ZGC's urban landscape and China's innovation system, we unravel the motivations behind the emergence of the LVS and the discrepancies between policy intentions, implementation and actual local results. Despite aspirations for InnoWay to set precedents for moving beyond GDP-centric development, these policies ultimately underscore the entrenched reliance on land finance and the ongoing friction between technological advancement and social equity.

The long-term success of the LVS in fulfilling its intended goals remains uncertain. With many local government-funded projects in hardcore technology requiring extended timeframes to bear fruit, it is premature to assess whether they can sustainably foster indigenous innovation. The increasing debts of local governments raise questions about the sustainability of their ambitious investment strategies. As economic growth slows, entrepreneurs' optimism may wane, and funding sources for LGFVs and GGFs may become constrained.

Our analysis also indicates that current entrepreneurial spaces have been less effective in addressing social inequalities. At the heart of these mixed results is an inherent conflict between the dynamics of technological innovation and wealth redistribution. Current literature on China's new innovation clusters and redistributive programs tends to overlook this critical contradiction (He *et al*., 2020; Lin, 2021; Wu *et al*., 2022). Technological innovation demands the concentration of capital in a select group of elite entrepreneurs and firms, while wealth redistribution requires an opposite approach. With resources becoming increasingly scarce, local governments face challenges in simultaneously achieving both objectives.

Will the LVS continue to shape urban entrepreneurialism, or will a new model soon emerge? Regardless, the LVS has already left a lasting imprint on Chinese cities, influencing not only the physical landscape but also the mindset of a generation of entrepreneurial officials and business leaders. Future entrepreneurial states will build upon these established foundations. As China's economy expands, the influence of the LVS might extend internationally. In a world of intensifying geopolitical tensions and economic instability, the continuous evolution of the LVS in ZGC and other cities warrants ongoing scholarly attention and comparative studies, positioning it as a critical topic for future research.

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