Check for updates

Original article

A Economy and Space

EPA: Economy and Space
1–20
© The Author(s) 2023

Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/0308518X231174023
journals.sagepub.com/home/epn

Adaptable state-controlled market actors: Underwriters and investors in the market of local government bonds in China

Zhenfa Li, Fulong Wu, and Fangzhu Zhang
The Bartlett School of Planning, University College London, UK

Abstract
Local government bonds (LGBs) have become the most important tool of the Chinese state for financing infrastructure projects. The underwriters and investors in LGBs are mostly commercial banks, with state actors holding the overwhelming majority of shares. We call these state-controlled market actors. This article investigates the role of state-controlled market actors in LGB issuance to extend the understanding of state actors and state–market relations in the financialisation of urban governance. The findings show that they underwrite and invest in LGBs to support the government's development objectives and make profits. They can hardly affect the government to create the terms and conditions of bonds to favour their financial interests, but they manage to make substantial profits. They follow the policy trends to identify LGBs as risk-free and reflexively change their investment priority towards the bonds. Due to the low interest rates, the banks mainly profit from bond trading in the secondary market and fiscal fund investment. There are preferential policies for LGB trading in the secondary market, and local governments deposit fiscal funds in the banks to motivate them to do LGB business. We argue that reflexively making investment decisions according to the policy environment and making profits by exploiting political resources represented by preferential policies and fiscal funds show the adaptability of the state-controlled market actors.

Keywords
adaptability, China, Financialisation, local government bonds, state-controlled market actors

Introduction

Since 2015 local government bonds (LGBs) have replaced the local government financing platforms as the main financing source for infrastructure projects in China (Pan et al., 2017; Li et al., 2022). According to the Ministry of Finance, the balance of LGBs was 34.9 trillion Yuan

Corresponding author:
Zhenfa Li, The Bartlett School of Planning, University College London, Central House, 14 Upper Woburn Place, London, UK.
Email: zhenfa.li.19@ucl.ac.uk

by 2022, ranking first in the domestic bond market.[1] Their underwriters and investors are mostly domestic commercial banks, including large central-state-owned banks and local-state-owned city banks. We call these state-controlled market actors. They are enthusiastic about LGBs, as all the bonds issued have been purchased since 2015.

Following the literature on the financialisation of urban governance (Peck and Whiteside, 2016; Weber, 2021), this article examines why state-controlled market actors underwrite and invest in LGBs. Their pursuit of financial interests and policy objectives differs from private capital commonly examined, providing a new context for analysis. The literature has discussed the considerations of and the relations between the state and the market (Wainwright and Manville, 2017; Pike et al., 2019; Waldron, 2019; Wang, 2020; Belotti, 2021; Wu, 2023). Private capital extracts value from the built environment by speculative financial innovations, and the state does the same but also pursues policy objectives irrelevant to financial interests. Private capital usually has an advantage over the state (August et al., 2022), though with some exceptions (Robinson and Attuyer, 2021). Looking into the state, studies have examined the government, public institutions and state-owned enterprises (SOEs) (Weber, 2010; Wang, 2015; Sanfelici and Halbert, 2019; Belotti, 2021). These state actors act as market actors to varying extents. They try to balance state objectives and financial interests and usually lean towards the latter, driven by financialised logic and the pressure from private capital. However, other forms of state actors still act in the market with distinctive considerations.

The banks in LGBs are a new form, called by us state-controlled market actors. They are almost free from the influence by private capital because state actors hold the overwhelming majority of the shares. We find that, though doing LGB business is an inevitable choice as the banks support the government's development objectives, they do consider financial aspects. They can hardly affect the government to create favourable terms and conditions for LGBs by negotiation, but they still make substantial profits in different ways. They monitor policy trends to identify LGBs as risk-free and reflexively change their investment priority towards bonds. LGBs yield little financial gain in the primary market due to the low interest rates close to treasury bonds. According to the Ministry of Finance, the annual average interest rates of LGBs were between 3% and 4% from 2009 to 2022, up to three percentage points lower than other financial products.[2]

Using a 'following the capital' method that tracks the capital generated by LGBs in the primary market and derived from LGB business, we find that the banks profit significantly by bond trading in the secondary market and, more importantly, fiscal fund investment. LGB trading in the secondary market enjoys policy preferences compared to other bonds, and the local government may deposit fiscal funds in the banks underwriting or investing in LGBs. We call the preferential policies and fiscal funds political resources the banks obtain in doing LGB business. The political resources revealed by 'following the capital' suggest a trans-scalar perspective of the banks' profit-making. We argue that reflexively investing in LGBs by following policy trends and making profits by exploiting the political resources reflect the adaptability of state-controlled market actors.

The rest of the article is as follows. The second section reviews the literature on urban governance financialisation, focusing on the state and market actors and sets out the contributions. Next is the section on the methods. The fourth section introduces urban governance financialisation in China, LGBs and state-controlled market actors, followed by a section analysing the adaptability of the market. The conclusions with further theoretical implications and insights for future research end the article.

The state and the market in the financialisation of urban governance

Existing perspectives

Urban governance has experienced financialisation as different stakeholders, mainly the state and the market, speculate on the built environment, including housing, infrastructure and land (Aalbers,

2020). Market actors, mostly represented by private capital, invest in the built environment using financial innovations to seek speculative profits (August et al., 2022). The state also relies on financial instruments and cooperation with private capital to extract value and achieve policy objectives (Wu, 2023). Policy objectives often contradict private profit-seeking, and the scholarship focuses on the mutual influence between the state and market actors. Some emphasise the influence of private capital. They lobby the state to implement regulations that favour financial activities or set contractual terms prioritising private interests using their advantage in financial expertise (Nölke and Perry, 2007; Waldron, 2019). There is even a 'structural dependence' of the state on private capital for policy objectives because of fiscal shortages, and financial actors can affect policymakers without lobbying (Pagliari and Young, 2020). Consequently, the executive power of the state is constrained, and its policy goals are undermined due to the priority of financial returns (Wainwright and Manville, 2017; Schwan et al., 2021).

Some acknowledge the agency and capacity of the state to execute statecraft (Pike et al., 2019). Though with many policy objectives, the final goal of the state embracing financialisation is to protect political legitimacy (Wang, 2020). Fiscal constraints since the 1970s have motivated the capitalist state to implement pro-finance regulations, use financial instruments and cooperate with private capital to finance urban (re)development (Phelps and Miao, 2020). During the process, the state can secure its interests through complex negotiation skills (Robinson and Attuyer, 2021). Development effectively relieves social tensions and maintains a stable political environment (Gabor, 2012; Quinn, 2017). Reliance on financial actors, however, inevitably results in financial risk (Lagna, 2016; Trampusch, 2019). If the risk jeopardises economic and social security, the state will adopt de-risking strategies to decrease the leverage and liquidity of financial products or even remove financial elements (Mabbett, 2021), leading to 'de-financialisation' (Ban and Bohle, 2021; Wijburg, 2021).

A critical assessment

The following points summarise these perspectives. First, a boundary regarding objectives separates the state and the market, or more precisely, the state and private capital. Though the state may act as a market actor by using financial instruments or acting through public institutions and SOEs that extract value from the built environment (Sanfelici and Halbert, 2019; Belotti, 2021), it also uses financialised means to address other issues key to political stability but irrelevant to financial interests, such as employment, environment, crime and the like (Weber, 2010; Lake, 2015; García-Lamarca and Ullström, 2022). In contrast, private capital mostly considers maximising profits.

Second, the state's policy objectives and private capital's financial interests are depicted as rivalry, and which one can prioritise its agenda varies across 'financial contexts' (Christophers 2019). The contexts are multi-scalar based on geographical, historical, sectoral and project-level particularities (Muellerleile and French, 2022). Beswick and Penny (2018) suggest that Lambeth Council in London prioritised returns for institutional investors in housing development, but Robinson and Attuyer (2021) claim that the local authority in the 'Old Oak Park Royal' development project in London negotiated with private developers and successfully secured public benefit and development objectives. However, it is undeniable that in most cases in the Anglo-Saxon contexts where most empirical studies are conducted, the financial interests of private capital are prioritised (August et al., 2022).

These perspectives have several limitations. First, scholars have recognised different state actors, including government, public institutions (mainly central banks) and SOEs. No matter how far the state goes into the market, there is enough space for private capital through shareholding and public–private partnerships to exert influence. However, the voice of private capital may be

almost excluded. An example is the LGBs in China. Most underwriters and investors are commercial banks with central or local state actors as the overwhelming majority shareholder (mostly over 80%). They do not cooperate with private capital when underwriting and investing in LGBs. It is fair to say that state actors *control* the primary market of LGBs, and private capital invests in LGBs in the secondary market.

Second, what are the considerations of the state-controlled market actors in LGBs? By 'state-controlled', we mean that private capital has little say over the decision-making of market actors. The literature deems state actors balance policy objectives and private interests when acting in the market. However, state-controlled market actors do not need to consider private gain. They pursue profits, but what are the relations between profits and government objectives and between them and the government? Are there also complicated negotiations like those between the state and private capital?

The literature on state capitalism sheds some light on these questions, in which China receives extensive attention (Naughton and Tsai, 2015). SOEs are key to state-led capitalist development (Musacchio et al., 2014; Peng et al., 2016). Whilst SOEs are believed to function for the government, Alami and Dixon (2022) argue that we should acknowledge their agency. The government is likely to use them for policy objectives, such as geopolitical interests, which force them to make decisions that are not financially efficient. However, they may also pursue strategies not aligned with the government because they are more or less regulated and have more or less autonomy to maximise profits. It is contingent and context-dependent (*ibid.*, 312; for examples in the Chinese context, see Eaton and Kostka, 2017; Jones and Zou, 2017). The case of LGBs may not reveal that SOEs do not align with the government. However, the emphasis on the agency of SOEs inspires us to look closer at the rationale of the banks doing LGB business when the bonds have very low interest rates and limited liquidity on the secondary market. Do they underwrite and invest in LGBs just to support the government by making financially inefficient decisions? Is it a zero-sum game?

Finally, existing studies mostly restrain the discussions within a specific project or financial instrument. They try to work out whether the interests of the state or private capital are prioritised in social impact bonds in the US (Lake, 2015), in real-estate investment funds in Italy (Belotti, 2021) or in a development project in London (Robinson and Attuyer, 2021). Such a method may not see the whole picture. What about the situation in which market actors make compromises on one occasion but acquire more significant profit-making opportunities for other times and places generated by the political resources gained on this occasion?

The contributions

After the assessment, we explain the contributions of this article through a focus on LGBs in China. Theoretically, the commercial banks, as the state-controlled market actors, in LGBs are a new form of both state and market actors and provide a new context for examining state actors and state–market relations in urban governance financialisation. The banks support development objectives and try to profit by underwriting and investing in LGBs. This situation fits the narrative of balancing policy objectives and financial gain, but the gain is hardly from LGB trading in the primary market due to the low interest rates. They make substantial profits by bond trading in the secondary market, which enjoys preferential policies and, more importantly, investing the fiscal funds local governments put in their bank accounts to motivate them to compete in underwriting and invest more in LGBs. In other words, they profit in other times and places by exploiting the political resources acquired in LGB business. The banks can hardly negotiate with the government to make the terms and conditions of bonds favour financial interests. They can only analyse policy narratives to reflexively make investment decisions.

The concept of reflexivity, which means a circular relationship between cause and effect, is increasingly used in urban studies and economic geography to examine the interplay between stakeholders, for example, how firms make and adjust investment strategies by learning from the interactions with the local authorities (French et al., 2009; Peck, 2017). The banks monitor the de-risking policy trends to shift the investment priority from the local government financing platforms to LGBs of lower risk and extract information published by the government to select specific issues of bonds to invest in.

According to Oxford English Dictionary, the word 'adapt' means making (a person or thing) suitable or fit for a purpose or conformable to specified conditions, standards, or requirements. We argue that the findings on investing in LGBs by reflexively analysing policies and making profits elsewhere by exploiting political resources obtained in LGB business reflect the adaptability of state-controlled market actors. The adaptability emphasises that the banks can still make substantial profits when investing in a financial product with low profitability, as they know how to acquire political resources and transform them into financial gains in other times and places. It is not a zero-sum game but a win-win situation between government objectives and financial interests. This argument extends the understanding of the agency of SOEs in state capitalism (Alami and Dixon, 2020, 2022). SOEs can pursue profit-making and meanwhile support government objectives that seemingly undermine financial performance. The form of interaction between the government and the banks is not negotiation but the banks following policy trends.

Methodologically, this article advocates a 'following the capital' method from a trans-scalar perspective to examine how state-controlled market actors make profits. There are some studies using methods with similar names, such as 'following the financial strategy' by Goldman and Narayan (2021), 'follow the money' by Hughes-McLure and Mawdsley (2022) and 'follow the firm' by Brill and Özogul (2021). They are insightful in emphasising the importance of tracking capital flows on different spatial scales through transparent or opaque channels to understand market actors. However, they are still limited in restraining the focus to a specific project, instrument or sector. What they do not discuss is the capital which is generated in a situation but flows elsewhere beyond. Our 'following the capital' approach not only tracks the capital originating from LGBs in the primary market but also follows the capital derived from LGB business, i.e., bond trading in the secondary market and fiscal funding investment. The capital flows reveal a trans-scalar perspective. The capital does not restrict itself within the locality of infrastructure projects but extends across multiple geographical scales, making profits for the banks in other places and times. The method explains banks' investment decisions seemingly not sensible but actually rather profitable.

Empirically, this article furthers the understanding of state actors and brings forward the market actors largely ignored in urban governance financialisation studies in China (He et al., 2020; Feng et al., 2022; Li et al., 2022; Wu, 2023). Most studies assume a simple situation that market actors (mostly state-controlled) just receive state mandates and omit discussion of their motivations, behaviours and relations with the government, which are complex and interesting. This article partially addresses the gap.

Methods

This article relies on document analysis and semi-structured interviews. Documents include disclosed reports on LGB issuance on the China Central Depository & Clearing platform, policy documents and related news from reliable agencies. The disclosed reports demonstrate the terms and conditions of bonds and the underwriting rules and procedures set by the government. 12 semi-structured interviews were conducted with the managers and staff of commercial banks underwriting and investing in LGBs. Nine of them come from the local branches of wholly central-state-owned banks and city banks in the two cities Chengde and Lianyungang, and three

others are in national joint-stock commercial banks in Beijing. Beijing ranked second in GDP of all the 293 cities in 2021, with abundant economic resources. Lianyungang ranked 73rd with a strong manufacturing industry. Chengde ranked 182nd and was based on tourism. These cities demonstrate regional disparity in economic development, government fiscal ability and market situations. The views produced by combining the experiences of interviewees in these cities may properly reveal the general situation in China. Every manager whose comments are cited is given a number (Table 1).

The 'following the capital' method tracks the capital (cost, principal and interest) originating from LGBs in the primary market and that derived from LGB business (bond trading in the secondary market and fiscal fund investment) (Figure 1).

The state-controlled market actors in LGBs

Urban governance financialisation in China

Urban governance financialisation in China is state-led because financial activities based on the built environment (except for commercial housing) are dominated by different state actors (Wu, 2023). Since the late 2000s, development by infrastructure construction has become the main way for the state to maintain political and social stability (Jiang and Waley, 2022). The state relies extensively on financial instruments to finance infrastructure projects. Over 8000 local government financing platforms were founded by the early 2010s as local SOEs to fund and operate projects (Pan et al., 2017). Equipped with payment guarantees from the local government and the use rights of land as collateral, the platforms borrowed loans from and sold corporate bonds (called *Chengtou* bonds) to domestic financial institutions, which repackaged these products into off-balance sheet wealth management products, resulting in thriving shadow banking (Chen et al., 2020). Due to huge expenditure pressure, the platforms and the local governments behind them became highly indebted. Corporate income and fiscal revenue were inadequate to pay the debt, and the platforms could only refinance by borrowing more. Poorly managed and supervised shadow banking with high leverage rates and enormous local debt imposed alarming threats to financial and political stability (Petry, 2020). In anticipation of the risk, the Ministry of Finance designed LGBs, and the situation has radically changed since 2015.

LGBs and their underwriting procedures

Some have called LGBs the Chinese version of municipal bonds. General bonds in LGBs are used for non-profitable infrastructure projects, and payment to investors comes from fiscal income,

Table 1. The introduction of interviewees.

Interviewee	Occupation
Manager 1	The head of financial market department in a city commercial bank in Chengde.
Manager 2	The vice governor of a city commercial bank in Lianyungang
Manager 3	The head of market investment department in the same bank as Manager 2.
Staff 4	A representative of corporate finance department in the local branch of a wholly central-state-owned commercial bank in Chengde.
Staff 5	A representative of the financial interbank department in the local branch of a national joint-stock commercial bank in Beijing.

Source: Compiled by the authors.

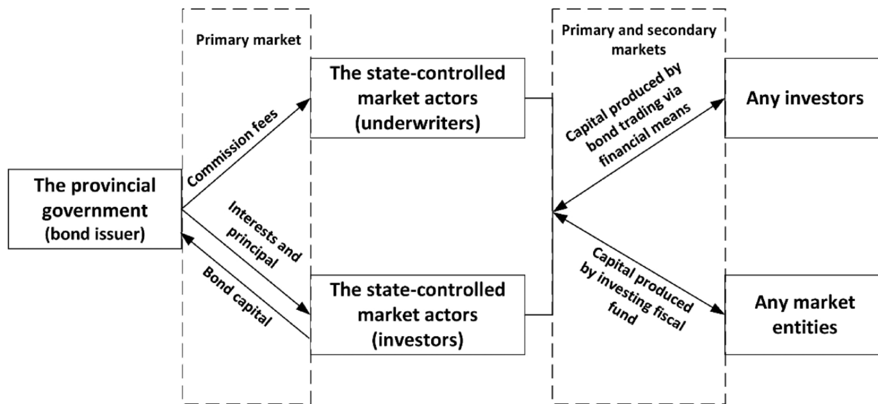

Figure 1. The capital flows in and derived from LGBs.
Source: Compiled by the authors.

echoing general obligation bonds. Special bonds in LGBs are for profitable projects, and investors are paid by the project's future revenue, paralleling revenue bonds. LGBs are also regarded as low risk and have low interest rates, and the interest from investing in the bonds is tax-exempt. Some studies use municipal bond products to examine the increasingly speculative state and how private capital increasingly influences the operation of these financial instruments (Weber, 2010; Kirkpatrick, 2016; Hilbrandt and Grubbauer, 2020; Omstedt, 2020). LGBs have the potential to generate new insights due to their distinctive features, as shown in Table 2. Some features are worth noting.

First, LGBs are designed by the Ministry of Finance rather than local governments. The ministry makes all the rules, including every row in Table 2, in the form of policy documents handed out to local governments. The rules set general principles and leave space for the provincial government to specify more based on local contexts. For example, the rule stipulates that the interest rates of LGBs should not be lower than the average rate of return of book-entry treasury bonds issued 1–5 days before bond issuance. The provincial government decides the specific rate of every issue of bonds for bidding through bond market situations. However, the space for the provincial government is limited as LGBs are deemed low risk. According to the disclosed reports, from 2009 to 2021, the interest rates of LGBs were stably 10–25 basis points higher than those of treasury bonds in most cases, with insignificant regional disparity.[3]

Second, LGBs experienced a five-year experiment from 2009 to 2014 to allow the provincial government to better understand the bonds. In the first two years, the ministry applied the operation of book-entry treasury bonds in LGBs.[4] The ministry issued and repaid bonds for local governments and set a small annual quota for every province as practice. Within the quota, the province selected projects, handed in project information to the ministry for approval, received the money from the ministry, invested the money in the projects, and transferred repayment to the ministry in due course. In 2011, the ministry set pilot provinces and cities to let local governments issue and repay bonds themselves, but the quota system remained. In 2015 all 31 provincial governments and five appointed city governments could issue and repay LGBs for themselves and lower-level governments. The quota system changed so that applications from counties, cities, and provinces for the next year were first examined by the next upper-level government and finally submitted to the ministry. Quotas were set based on local debt situations and project financing demand so local governments would not be too indebted (for details, see Li et al., 2022).

Third, the underwriting requirements are stringent. Book-entry treasury bonds have strict requirements for underwriters, and LGBs copy most of them. Before 2015, only the A and B

Table 2. A general description of local government bonds.

	2009–2014	After 2015
Categories	/	General bonds and special bonds.
Issuer	The Ministry of Finance; the governments of pilot provinces and cities.	Provincial governments and five appointed city governments.
Issuing requirements	Bond issuers apply for quotas from the Ministry of Finance before issuing.	Local governments apply for quotas by a level-by-level procedure.
Credit enhancements	The credit of bond issuer.	The same.
Interest rate	Fixed interest rates decided by referring to those of treasury bonds issued 1–5 days before LGB issuance.	The same.
Maturity period	Mostly 3–10 years.	Mostly 7–30 years.
Investors	Mostly domestic commercial banks.	The same.
Issuing form	Mostly public bidding. Bonds are based on specific projects and every bidding event bids for several issues of bonds for hundreds of projects in cities and counties.	The same.
Underwriting requirements	Getting admission to the underwriting group. Standby underwriting.	The same.
Type of bond income	Tax-exempt.	The same.

Note: The five city governments are Dalian, Ningbo, Xiamen, Qingdao and Shenzhen.
Source: Summarised from disclosed reports.

class members of the underwriting group of book-entry treasury bonds could bid for LGBs. Membership requires ten billion Yuan as the minimum amount of assets and minimum underwriting amounts. The A class needs to underwrite more than the B class to keep the grade to participate in the decision-making of the bond issuance plan. The number of these members was less than 60, while over 3600 financial institutions were registered in 2010. For LGBs, the bidders were required minimum underwriting amounts, 3% of the planned issuing amount for A-class members and 0.5% for B-class members. Institutions failing to reach the amount up to three to four times a year would be disqualified. Membership was assessed every two years, and the underwriting amount was key to earning the qualification, but even A-class members could not affect the bond issuance plan for LGBs. The interest rate of LGBs was set as $\pm$ 15% of the average rate of return of treasury bonds issued 1–5 days before the bidding. The interest rate was 3.09% on average during 2009–2014, two to three percentage points lower than *Chengtou* bonds and other financial derivatives. The interests generated from LGBs were exempted from income tax. However, the profits for investors were still lower than those of other products due to the low interest rates. The underwriting mode was standby underwriting, which required underwriters to purchase LGBs if they could not find investors. Low profits, limited access, competitive qualification, minimum underwriting amounts, and standby underwriting made LGBs a seemingly bad investment choice. Nonetheless, LGBs were very popular and 99.9% of the bonds were sold as planned.

After 2015, some restrictions were relaxed. The underwriting group is divided into primary and secondary members decided by the provincial government. The primary members include most of the members before 2015 while the secondary membership requires a lower minimum amount of total assets and incorporates local financial institutions. Many provinces cancel minimum underwriting amounts while the competitive qualification remains. LGBs are still less profitable. The average value of interest rates from 2015 to October 2021 was 3.6%, 1.5 percentage points lower than *Chengtou* bonds.[5]

The state-controlled market actors

LGBs have never experienced a failed bid since 2015, and the bid-to-cover ratio has usually been higher than ten since 2018. In some cases, the ratio is even more than 50.[6] LGBs are mostly held by commercial banks (85%, Figure 2). Other (private) financial institutions, such as securities companies, are less interested in LGBs because the bonds are long-term investments and require abundant cash reserves. In contrast, securities companies operate under a high debt ratio and prefer short-term speculative investments.[7] They may purchase LGBs in the secondary market and sell them quickly rather than hold them long-term.

Before analysing the difference within commercial banks, it is necessary to demonstrate the structure of the bank-based financial market with a profound state background. The four *wholly* central-state-owned commercial banks take up the lion's share of the financial sector (Bank of China, Industrial and Commercial Bank of China, China Construction Bank and Agricultural Bank of China). Their majority shareholders are the Ministry of Finance or the Central Huijin Investment Corporation established by the State Council, and the other shareholders are all central government departments or SOEs. They operate in a vertical structure with the head offices in Beijing at the highest level. The second and third levels are the provincial branches and prefectural branches. The bottom levels comprise over 100,000 sub-branches in cities, counties and townships. It is the provincial branches that participate in the public bidding for LGBs. Together with two other central-state-owned commercial banks (Bank of Communication and Postal Savings Bank of China, with private investors as minority shareholders), these are the six large state-owned banks. Provinces and cities have been establishing local-state-owned city and rural commercial banks, respectively, which mostly open branches in urban and rural areas in the jurisdiction. Their majority shareholder is usually the local financial department, and the minority includes local SOEs and private investors. The shares held by private investors are mostly less than 10% of the total. 12 national joint-stock commercial banks have opened branches across the country. Nominally, they are not categorised as state-owned, but eight of these banks have local government departments or SOEs as the majority shareholders, and the shares held by state actors are more than 80% of the total. They introduce themselves as following the shareholder value principle and supporting the development objectives of the central or local governments.[8]

We call these banks state-controlled market actors to highlight that the private capital holds too few (or no) shares to raise their voice. These banks indeed pursue financial interests, but it reflects

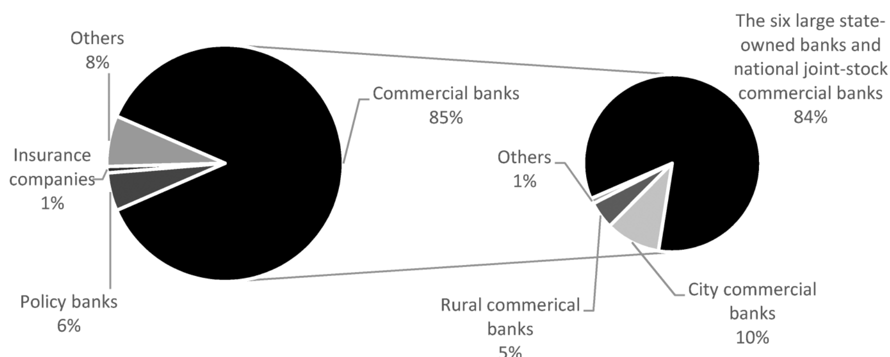

Figure 2. The bondholders of LGBs by 2020.
Source: The report from the Ministry of Finance, the research by Guosen Securities and 'The blue book of China's local government bonds (2021)'. Available at http://kjhx.mof.gov.cn/yjbg/index_5.htm.; http://finance.sina.com.cn/money/bond/market/2021-02-24/doc-ikftpnny9393863.shtml.; https://item.jd.com/10045726409036.html.

state objectives of making commercial banks financially efficient instead of being influenced by private capital.[9] The banking sector has been substantially reformed since the 1980s to transform commercial banks from the bursars of the government to bankers pursuing financial interests (Nanto and Sinha, 2002). However, meanwhile, the banks are still a tool of the government for development objectives, and their top priority is severing the real economy rather than profit maximisation, even if they need to make less efficient decisions (Heilmann, 2005; Sufian, 2009; Huang, 2012; Stent, 2016). Therefore, it seems easy to understand the banks' enthusiasm for LGBs if we regard the agency of the banks is to support the government's development objective.

Figure 2 shows that the six large state-owned banks and national joint-stock banks hold most LGBs issued but does not reveal the specific proportions of the two kinds of banks. Our interviewees suggested that the six large state-owned banks invest in most bonds while national joint-stock banks are less enthusiastic. The underwriting amounts of commercial banks are not disclosed, but we can make inferences. The disclosed reports list the primary and secondary underwriters in every province. The number of primary underwriters is mostly less than ten, and the four wholly central-state-owned banks are always in the group. The other primary underwriters usually include the two other central-state-owned banks, national joint-stock banks and city banks. According to the interviewees in different cities, provincial branches of the six large state-owned banks underwrite most LGBs.

The four wholly central-state-owned banks are reformed to receive less influence from the local state. The head office makes investment decisions and is hardly affected by the local state (Stent, 2016). Then, why their provincial branches are still keen on LGBs issued by provincial governments? On the one hand, LGBs are promoted by the Ministry of Finance and these large banks are directly controlled by the central government. On the other hand, LGBs business worth trillions of Yuan is tempting and important for the local branches to make profits. It is also true for city and rural banks that LGBs are a political task from the local state and bring considerable profits. The agency of the banks, as is shown in the next section, is not only about supporting government objectives but also about making substantial profits.

The adaptable market

As to the reasons for doing LGB business, the interviewees highlighted support for government policies. staff 4 argued:

> We are responsible SOEs and the leader in the financial sector. Of course, we support LGBs that promote development and improve people's living conditions. We firmly support and implement the policy objectives of the Ministry of Finance and the State Council of promoting economic growth via financial means. We have underwritten and invested in dozens of fields emphasised in national and local policy narratives, up to hundreds of projects funded by the bonds. We are always the most determined supporter of LGBs.

Other interviewees, including those working in national joint-stock banks, held a similar view. It appears that these banks would engage in LGBs anyway, despite the low interest rates. Nonetheless, they indeed make substantial profits. We use adaptability to describe how they profit from LGBs, which is explained in the following aspects.

Reflexively making decisions by following policy trends

Changing to LGBs to reduce financial risk and political uncertainty. Supporting government policy objectives seems to make LGBs an inevitable choice, but the banks do assess the financial aspects of the bonds. These are the same banks that invested in the financial products of the

local government financing platforms. They still support such platforms, but their priority has changed to LGBs since 2015. Why the shift? The reason is the low risk ensured by the credit of the provincial government. Staff 5 said:

> Though with lower interest rates, LGBs are among the few principal-protected products on the market. They are backed by the credit of the province. We are confident that we will never lose money.

The confidence was in the local government financing platforms. Their financial products were backed by payment guarantees from the local government and the use rights of the land. The banks were confident that the local government would not default on debt or become bankrupt because of the requirement by the central government for no local systemic financial risk[10] and the soft budget constraint, which means that the higher-level government would bail out the lower-level ones (Walker et al., 2021). The term '*Chengtou* belief' was coined to describe the situation in which the banks almost blindly invested in the financial products of the platforms regardless of their financial situation and that of the local government. However, the situation has been changed by the policy shift. In 2014 the State Council asked the platforms to operate independently, and their debt was categorised as corporate debt (Feng et al., 2022). The local government could not provide any form of guarantee or bailout. Though the platforms are still local SOEs, the local government is no longer liable if the companies default. Meanwhile, there have been increasing cases of deferred payments among platforms across the country in recent years.[11] The '*Chengtou* belief' remains but is starting to fade, and the banks increasingly regard *Chengtou* bonds more as a risky choice like other private financial products.

In contrast, LGBs are promoted by the Ministry of Finance and backed by the province's credit as the new low-risk investment option. The banks closely monitored the policy shift and reflexively changed investment priority to LGBs to minimise financial risk. Moreover, the consideration of risk is also politically driven as the trend of policies on local government debt since the early 2010s has been de-risking (Wu, 2023). Changing to LGBs is partly to avoid losses caused by policy uncertainty. The policy environment for the local government financing platforms and other local-state-led financial activities has remained volatile since the introduction of LGBs; for example, public–private partnerships and government buying services were encouraged at first but then restricted quickly due to violations of central regulations (Li et al., 2022). Investing in LGBs is a politically stable and sustainable choice for the market.

Investing by analysing the information given by the government. The other aspect of reflexivity is that the banks could hardly affect the specific characteristics of every issue of LGBs before or during the bidding (e.g., interest rates) and can only make decisions by analysing the information given by the government. The Ministry of Finance makes the underwriting rules and the general terms and conditions for LGBs, benchmarking on the operation of treasury bonds, which is mature and leaves limited space for change. The ministry has a special department to formulate policies, including those of LGBs, and there is a group of experts from banks, universities, research institutes and companies offering suggestions. The banks may have a chance to make LGBs favour their financial interests. However, the policy-making at this top level is disconnected from bond underwriting in different provinces with different projects. As mentioned earlier, the ministry sets the principle that the interest rate of LGBs should be close to that of treasury bonds issued 1–5 days before the bidding event. Then, the provincial government decides the rates for the issues of bonds in the bidding. The time frame is very short, and, according to the interviewees, they are not invited to the decision-making. With the enthusiasm of the underwriters and investors, the bid-hit ratio is even lower than the ratio set by the provincial government. In addition, every issue of bonds only has one fixed interest rate but finances hundreds of projects in different cities and counties.

The provincial government decides the selection of projects, and the banks can hardly intervene. In this situation, they make reflexive investment decisions by collecting as much information as possible. Manager 1 argued:

> We only have a couple of days to do the research. We analyse the interest rates of treasury bonds, the important sectors,[12] project information, the debt situations of the cities or counties, and so on. Then we decide how much we should underwrite and invest. We have much to learn and need to make the decision swiftly.

This aspect of reflexivity reveals that the provincial government and the banks hardly negotiate to prioritise each other's interests over specific issues of bonds, contrasting with the situation described by Raco et al. (2019), in which investors make reflexive decisions by continuous engagement with local planners. The rules made by the Ministry of Finance and the short time frame to decide the specific characteristics of bonds leave limited space for the provincial government and the banks. It is, therefore, not necessary for them to negotiate. On the other hand, there are indeed negotiations between experts from banks and policy-makers in the Ministry of Finance. Policy-making at such a top level is never transparent. We do not know whether the banks want to or can affect the policies to favour them. However, negotiations at this level care more about general policy frameworks rather than contextualised bond underwriting that decides the specific characteristics of every issue of bonds.

Making profits beyond the primary market by exploiting political resources

The interviewees in different cities agreed that LGBs create very limited profits in the primary market due to the low interest rates. However, they figure out how to make substantial profits. The 'following the capital' method identifies two ways to profit beyond the primary market.

Increasing profits from the secondary market. LGB trading in the secondary market was inactive but has been creating more profits for the banks. Manager 2 said:

> After underwriting, we used to hold the bonds until the due date because there were few ways of making profits. Now things are better after some policies.

LGBs have similarly low interest rates to treasury bonds but are much less liquid in the secondary market. The banks hardly traded bonds because a policy of the China Banking Regulatory Commission in 2012 stipulated that commercial banks could not reinvest bonds more than 20% of their total underwriting amount. The banks invested a large amount of cash in purchasing LGBs but could hardly resell them in the secondary market, resulting in a capital blockade that restricted cash liquidity. They had to hold the bonds. With the low interest rates, the banks earned much less by investing in LGBs than by selecting other financial products, including treasury bonds.

In 2018, the commission enacted another policy saying that LGBs, like treasury bonds, were exempt from the rule.[13] The liquidity and profitability of LGBs in the secondary market were then significantly improved. Table 3 shows that LGB trading in the secondary market in different forms has been increasingly active. The interest rates of LGBs in the secondary market are higher than those in the primary market, and thus spot trade creates extra profits for the banks.[14] The most popular pledged repurchase replenishes cash that can be invested elsewhere to make profits. This trading form greatly alleviates capital blockade and improves the profitability of LGBs. In 2019, the Ministry of Finance published a policy to allow commercial banks to sell LGBs over the counter, especially to individuals and small firms.[15] The minimum threshold of investment is

only 100 Yuan. Several banks have tried over-the-counter trading and received enthusiastic responses. According to several managers in different banks, LGB trading on the secondary market has become an important revenue source to supplement the limited financial interests in the primary market. LGBs are exempt from the '20% limit' on reinvestment, and they are traded over the counters of banks with a minimum investment threshold much lower than other financial products, because the government specially promotes the bonds. The fact that LGBs enjoy preferential conditions reflects that the banks profit by exploiting political resources.

Profiting from investing fiscal funds. The fiscal funds of local governments are the other kind of political resources helping make substantial profits. Staff 4 shared his opinion:

> We do LGB business because we are a renowned and responsible SOE, but we also want to build good relations with the local government so that we can undertake more government projects and business. For example, if we underwrite or buy more LGBs, they may deposit their fiscal and other funds in our bank. It is a huge amount of money and very important for us to conduct other kinds of business. There is intense competition among us and fast-growing city commercial banks. As we have already paid for LGBs, we need to replenish our reserves as much as possible.

The Law of Commercial Banks in China stipulates that domestic commercial banks cannot make 'high-risk investments', including any business on the stock and trust markets.[16] Together with the '20% limit' in the bond market, these regulations restrict the main income of commercial banks to the interest rate spread of deposit-taking and issuing loans. Fiscal funds as bank deposits are thus crucial assets for these banks. The interviewees did not give specific data or examples of the profits made by fiscal fund investment related to LGBs. However, they all emphasised the importance of fiscal funds to profitability, asset allocation and quality, capital adequacy ratio and the like, 'making LGBs a definitely good investment option' (Manager 3). However, the banks need to compete to obtain fiscal funds. As Staff 4 said above, the competition is intense. For example, some government departments in Chengde changed the bank account that pays civil servants from China Construction Bank to the city commercial bank (Bank of Chengde). The reason for the change is complex, but the banks need to do something to affect the government, which includes underwriting and investing more in LGBs. National joint-stock commercial banks can hardly enjoy the benefit from fiscal funds, according to the interviewees, because underwriting or investing more in bonds cannot change the fact that, at least in the short term, local governments prefer to deposit in the wholly central-state-owned commercial banks and city commercial banks closely tied to them.

Although fiscal fund investment creates considerable profits for the banks, the central government deems it less 'marketised and efficient' when local governments affect the banks using fiscal funds. The State Council published policies restricting local governments from doing this

Table 3. LGB trading in the secondary market from 2015 to 2022 (unit: trillion Yuan).

	2015	2016	2017	2018	2019	2020	2021	2022
Spot trade	0.27	1.96	0.84	4.31	9.65	13.25	7.88	9.42
Turnover rate	—	—	7%	26%	49%	233%	191%	27%
Pledged repurchase agreement	7.41	13.22	—	15.96	18.9	22.59	35.03	55.79
Buyout repurchase agreement	0.04	0.30	—	—	—	1.1	0.41	0.47
Over-the-counter trading	—	—	—	—	—	0.004	0.02	0.01

Note: — means no data disclosed.
Source: The Ministry of Finance http://kjhx.mof.gov.cn/yjbg/index.htm; China Central Depository & Clearing platform https://www.chinabond.com.cn/Channel/19012917#.

in 2019 and 2021.[17] However, according to our interviewees, it still widely exists as the main incentive for the banks to do LGBs business. It will take some time for the situation to disappear, and LGBs need to find other means to keep attracting investors.

Comparing the two kinds of political resources, the banks make more substantial profits from fiscal fund investment than bond trading in the secondary market. No data on the profits have been disclosed; we can only have a general understanding according to the interviews. It is difficult for the banks to calculate the profits related to fiscal fund investment, but it is for sure that a large amount of cash is key to profit-making by all kinds of commercial banks. Moreover, we cannot deny that the profitability of LGB trading in the secondary market is lower than most financial products, as the liquidity of bonds is still quite low due to various reasons, such as that the interest rates are made by referring to treasury bonds rather than according to market situations. However, we would like to emphasise that the policies since 2018 have improved bond liquidity and created more profits than the earlier years when the banks mostly held the bonds until the due date. These policies are political resources other financial products can hardly enjoy (except for treasury bonds). With the ongoing (and probably increasing) support from the central government, the liquidity and profitability of LGBs in the secondary market are likely to continue rising and further complement the low profits in the primary market.

It should be clarified again that our findings and arguments can be generalised to describe the Chinese context. As is explained in the method section, the three cities reveal regional disparity in different aspects. The same questions were asked to different interviewees, and the responses were almost identical. Indeed, none of the interviewees in large state-owned banks or city banks was from Beijing. We know very little about the situation in the most developed cities. However, we believe that the managers in these banks in such cities are at least as (if not more) enthusiastic about LGB business as those in Lianyungang and Chengde. Supporting government objectives is a place-neutral situation in China. The secondary market of LGBs is more active here as the market is more developed and liquid. More importantly, local governments here are more fiscally powerful and have more funds to deposit. This belief is partially supported by the fact that more developed provinces (cities) successfully issue more LGBs[18] and that the policies restricting local governments from using fiscal funds to affect banks are for the whole country rather than specific places.

Geographical implications of the 'following the capital' method. The profits created by secondary market bond trading and fiscal fund investment revealed by 'following the capital' suggest a trans-scalar perspective on the banks pursuing financial interests. By trans-scalar, we mean that the capital derived from LGB business flows across geographical scales and makes profits for the banks in other places and times. There are three modes of capital flows with different geographical implications.

First, the over-the-counter selling mode of LGBs connects the multiple geographical scales within the province by capital flows. This mode is led by the provincial branch of the banks. Small investors may purchase LGBs issued by the provincial government in any branch in the province or through Internet or mobile banking. The geographical implications are in Figure 3. The capital flows connect the provincial branch (usually in the provincial capital city) to investors in different cities and counties in the province. These investors may go to the provincial branch to buy LGBs, or the lower-level branches may transfer money from these investors to the provincial branch the underwriter, who then transfers the interests and principal downwards. We are not saying that there are no individuals in other provinces buying LGBs here, but this is less common because the provincial branch mainly targets for local investors. This mode is undertaken by more and more provinces for their local investors. This mode cannot directly generate profits for the banks but replenishes cash that can be invested elsewhere, similar to fiscal funding investment, explained later.

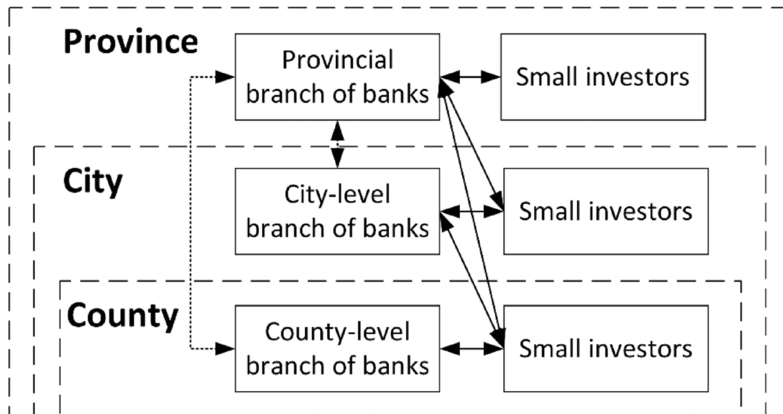

Figure 3. The capital flows of the over-the-counter selling mode of LGBs.
Source: Compiled by the authors.

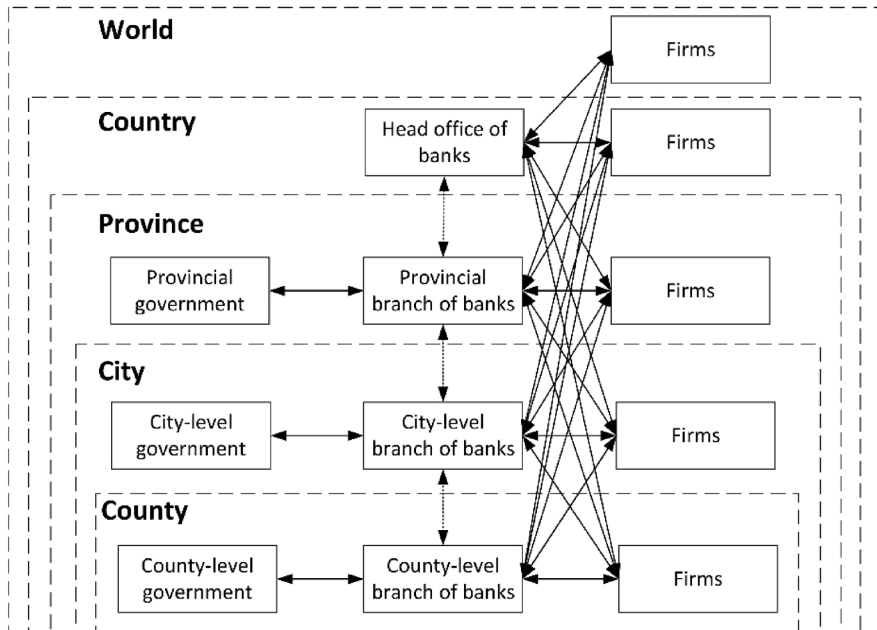

Figure 4. The capital flows of fiscal funding investment.
Source: Compiled by the authors.

Second, secondary market LGB trading removes the geographical boundaries of capital flows in the country. The trading is mainly undertaken in the interbank market, Shanghai stock exchange and Shenzhen stock exchange. After the banks put LGBs in the market, the bonds can be traded mainly in the forms in Table 3. The banks may trade with firms anywhere in the country and the bonds may be further traded for several times by different investors and financial intermediaries. We emphasise a national geographical level here, while foreign financial institutions are indeed

listed in the trading venues above. However, by 2022, only LGBs worth 0.73 billion Yuan were held by foreign institutions, 0.02% of the total trading amount in the secondary market.[19]

Third, fiscal fund investment facilitates capital flows across multiple geographical scales from a county to the world (Figure 4). After the banks acquire fiscal fund deposit from the local government, there are few restrictions in terms of geographical locations and scales for them to form investment strategies. For example, the county-level branch of a bank in a less-developed western city, which may have less cash and prefer risk aversion, may choose to buy treasury bonds or corporate bonds issued by a renowned large SOE in Beijing or Shanghai. In contrast, a city-level branch of a bank in a wealthy eastern city with abundant cash may lend to small local private firms more likely to close down with higher interest rates. In addition to investing by branches, the head office may make large-scale investments at the national and transnational levels by coordinating capital across branches at different levels. In this way, the banks are able to make substantial profits in other places and times by capital acquired in doing LGB business. Most (if not all) of the geographical scales that we are aware of are connected.

In summary, the benefits of an investment strategy are not limited to the quantitative returns directly generated but include any positive influences over the whole business operation and are in any form that can eventually be measured by financial gain. The mobilisation of capital observed in practice depends on the consideration of such benefits that transcend boundaries of sectors, places and time. Understanding capital flows beyond the empirical focus can justify a seemingly irrational financial strategy in a particular situation.

Conclusions

With the government holding the overwhelming majority of the shares, the banks in LGBs are a new form of state and market actors, almost free of the influence by private capital when making investment decisions. They receive government mandates regarding investing in LGBs and can hardly affect the government to make the terms and conditions of bonds favour their financial interests. Nonetheless, they make substantial profits in an adaptable manner, explained by reflexively making investment decisions by following policy trends and profiting by exploiting political resources mainly in the form of the fiscal funds of local governments. These findings enrich the understanding of state–market relations, the relations between state actors and diversified encounters among market agencies (Çalışkan and Callon, 2010). The state does not necessarily rely on private capital in financing urban development, and thus the policy objectives of the state do not have to be undermined as described by the literature on urban governance financialisation (August et al., 2022). The state-controlled market actors can pursue financial interests, not only in the situations where the government's objectives are promoting their financial interests, or they need to act against the government when being less regulated, as argued by scholars in state capitalism (Alami and Dixon, 2022), but also when they are adaptable enough to exploit any political and economic resources they could get. These findings also extend the understanding of what Whiteside (2023) calls 'state-led' financialisation in the actions and relations between state apparatus. In her opinion, state actors in the market do not offer an 'appreciable alternative' as these actors act along financialised principles. This is true, but state-controlled market actors provide new opportunities to explore the nuances in state-market relations beyond state (public)–private divide.

It should be highlighted that state-controlled market actors reflect more than Chinese exceptionalism. Such actors echo the trend of a more assertive state even in the Anglo-Saxon context, especially after the 2008 global financial crisis and in the Covid-19 pandemic, which is reflected in the rise of state capitalism studies (Alami and Dixon, 2020). The state has been intervening more heavily in more fields of the economy to maintain development and stability, while private capital has been experiencing more difficulties in delivering services under tough market

conditions. This situation tilts the balance towards the state, and private capital may not have the advantage it had and may need to adapt in a new way, as state-controlled market actors do in LGBs.

The 'following the capital' method highlights a trans-scalar perspective on how market actors make profits. The terms and conditions of a financial product may seem to hamper the financial interests of the market actors. However, they may acquire more significant profit-making opportunities in other times and places across geographical scales due to the resources obtained by investing in this product. This method thus calls for a deeper look into the interaction between the state and the market and examines the dynamics beyond any superficial boundaries.

This article also presents a government good at using its resources for policy goals. There have never been any official guarantees from local governments that their fiscal funds would be deposited in the accounts of banks that underwrite or invest more in LGBs. However, they commonly use fiscal funds as motivation, though the State Council has tried to reduce the number of these situations. This supplements the narrative of 'state entrepreneurialism' in which the Chinese state uses the market to achieve planning targets (Wu, 2018). One of the premises of state entrepreneurialism is that the market is dominated by SOEs that follow policy discourse. The studies that apply this narrative to examine financialisation say less about how the government incentivises SOEs to implement policy objectives (Jiang and Waley, 2022; Wu, 2023). In LGBs the government does not just play a coercive role to 'order' banks but tries to motivate them with fiscal fund deposits and other projects and resources. Therefore, a 'reciprocal exchange' perspective between the state and the market (Han et al., 2022), especially when SOEs represent the market, should be emphasised more in the state–market relations in urban governance financialisation in the Chinese context and beyond.

Acknowledgements

We would like to thank the editor Henry Yeung and the three anonymous reviewers for their constructive feedback and suggestions on the earlier versions of the article. All remaining errors are ours.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The paper is supported by the European Research Council (ERC) Advanced Grant 'ChinaUrban' [grant number 832845] and the China Scholarship Council.

Notes

1. http://kjhx.mof.gov.cn/yjbg/index.htm
2. http://kjhx.mof.gov.cn/yjbg/index.htm
3. https://www.chinabond.com.cn/cb/cn/yjfx/zzfx/nb/list.shtml
4. The reason for applying the operation for LGBs: www.gov.cn/gzdt/2009-03/17/content_1261497.htm
5. The value is calculated by reports on http://www.governbond.org.cn/yjbg/index.jhtml and the WIND database.
6. The ratio is on http://www.governbond.org.cn/yjbg/index.jhtml. The cases of high ratios come from internet news, like https://finance.eastmoney.com/a/201901271035099045.html
7. The view is from the same sources as Figure 2.

8. For example, Shanghai Pudong Development Bank emphasises that they will serve the development tasks of the Shanghai government: https://news.spdb.com.cn/about_spd/implementation/; China Citic Bank highlights the national policy initiatives of inclusive finance and financial aid for small and medium enterprises: https://www.citicbank.com/about/introduction/socialresponsibility/2021/.
9. The guiding ideology of banking reform since the 1980s has been 'making commercial banks financially self-sufficient and efficient' proposed by Deng Xiaoping. http://cpc.people.com.cn/n1/2020/0305/c69113-31618494.html.
10. http://theory.people.com.cn/n1/2019/0517/c40531-31089788.html
11. For example, https://www.sohu.com/a/477178516_121123903
12. The State Council and provincial government publishes 'the sectors important to development' periodically, such as transportation infrastructure, and LGBs are usually invested more in these sectors.
13. The policy is not disclosed to the public but multiple news agencies report the policy, for example, https://www.sohu.com/a/252233712_564823?scm=&spm = smpc.channel_248.feed-slideload-author-data-1.1.1664910250549VZ0xAh8_324
14. An article published on China Central Depository & Clearing platform suggests that the interest rates of LGBs in the secondary market are mostly higher than those in the primary market. http://www.ccdc.com.cn/Info/154743509
15. https://www.chinabond.com.cn/Info/160264782
16. http://www.pbc.gov.cn/tiaofasi/144941/144951/2884004/index.html
17. http://www.gov.cn/gongbao/content/2021/content_5578544.htm; http://www.gov.cn/zhengce/2019-06/10/content_5398949.htm
18. Data on LGB issuance in provinces is published by the Ministry of Finance at http://www.celma.org.cn/ndsj/index.jhtml
19. http://kjhx.mof.gov.cn/yjbg/index.htm

References

Aalbers MB (2020) Financial geography III: The financialization of the city. *Progress in Human Geography* 44(3): 595–607.

Alami I and Dixon AD (2020) State capitalism(s) redux? Theories, tensions, controversies. *Competition & Change* 24(1): 70–94.

Alami I and Dixon AD (2022) Expropriation of capitalist by state capitalist:" Organizational change and the centralization of capital as state property. *Economic Geography* 98(4): 303–326.

August M, Cohen D, Danyluk M, et al. (2022) Reimagining geographies of public finance. *Progress in Human Geography* 46(2): 527–548.

Ban C and Bohle D (2021) Definancialization, financial repression and policy continuity in east-central Europe. *Review of International Political Economy* 28(4): 874–897.

Belotti E (2021) The invisible hand of the shareholding state: The financialization of Italian real-estate investment funds for social housing. *Housing Studies*: 1–24. https://doi.org/10.1080/02673037.2021.1935762

Beswick J and Penny J (2018) Demolishing the present to sell off the future? The emergence of 'financialized municipal entrepreneurialism' in London. *International Journal of Urban and Regional Research* 42(4): 612–632.

Brill F and Özogul S (2021) Follow the firm: Analyzing the international ascendance of build to rent. *Economic Geography* 97(3): 235–256.

Çalışkan K and Callon M (2010) Economization, part 2: A research programme for the study of markets. *Economy and Society* 39(1): 1–32.

Chen Z, He Z and Liu C (2020) The financing of local government in China: Stimulus loan wanes and shadow banking waxes. *Journal of Financial Economics* 137(1): 42–71.

Christophers B (2019) Putting financialisation in its financial context: Transformations in local government-led urban development in post-financial crisis England. *Transactions of the Institute of British Geographers* 44(3): 571–586.

Eaton S and Kostka G (2017) Central protectionism in China: The "central SOE problem" in environmental governance. *The China Quarterly* 231: 685–704.

Feng Y, Wu F and Zhang F (2022) Changing roles of the state in the financialization of urban development through chengtou in China. *Regional Studies* 56(8): 1259–1270.

French S, Leyshon A and Thrift N (2009) A very geographical crisis: The making and breaking of the 2007–2008 financial crisis. *Cambridge Journal of Regions, Economy and Society* 2(2): 287–302.

Gabor D (2012) The road to financialization in central and Eastern Europe: The early policies and politics of stabilizing transition. *Review of Political Economy* 24(2): 227–249.

García-Lamarca M and Ullström S (2022) "Everyone wants this market to grow": The affective post-politics of municipal green bonds. *Environment and Planning E: Nature and Space* 5(1): 207–224.

Goldman M and Narayan D (2021) Through the optics of finance: Speculative urbanism and the transformation of markets. *International Journal of Urban and Regional Research* 45(2): 209–231.

Han C, Oi LX and C J (2022) Firms as revenue safety net: Political connections and returns to the Chinese state. *The China Quarterly* 251: 683–704.

Heilmann S (2005) Policy-making and political supervision in Shanghai's financial industry. *Journal of Contemporary China* 14(45): 643–668.

He S, Zhang M and Wei Z (2020) The state project of crisis management: China's Shantytown Redevelopment Schemes under state-led financialization. *Environment and Planning A: Economy and Space* 52(3): 632–653.

Hilbrandt H and Grubbauer M (2020) Standards and SSOs in the contested widening and deepening of financial markets: The arrival of Green Municipal Bonds in Mexico city. *Environment and Planning A: Economy and Space* 52(7): 1415–1433.

Huang PC (2012) Profit-Making state firms and China's development experience: "state capitalism" or "socialist market economy"? *Modern China* 38(6): 591–629.

Hughes-McLure S and Mawdsley E (2022) Innovative finance for development? Vaccine bonds and the hidden costs of financialization. *Economic Geography* 98(2): 145–169.

Jiang Y and Waley P (2022) Financialization of urban development in China: Fantasy, fact or somewhere in between? *Regional Studies* 56(8): 1271–1281.

Jones L and Zou Y (2017) Rethinking the role of state-owned enterprises in China's rise. *New Political Economy* 22(6): 743–760.

Kirkpatrick LO (2016) The new urban fiscal crisis: Finance, democracy, and municipal debt. *Politics & Society* 44(1): 45–80.

Lagna A (2016) Derivatives and the financialisation of the Italian state. *New Political Economy* 21(2): 167–186.

Lake RW (2015) The financialization of urban policy in the age of Obama. *Journal of Urban Affairs* 37(1): 75–78.

Li Z, Wu F and Zhang F (2022) A multi-scalar view of urban financialization: Urban development and local government bonds in China. *Regional Studies* 56(8): 1282–1294.

Mabbett D (2021) Reckless prudence: Financialization in UK pension scheme governance after the crisis. *Review of International Political Economy* 28(4): 926–946.

Muellerleile C and French S (2022) Variegated intersections of neoliberalism and financialization. *Environment and Planning A: Economy and Space* 54(1): 136–143.

Musacchio A, Farias AM and Lazzarini SG (2014) *Reinventing state capitalism: Leviathan in business, Brazil and beyond*. Cambridge, MA: Harvard University Press.

Nanto DK and Sinha R (2002) China's banking reform. *Post-Communist Economies* 14(4): 469–493.

Naughton B and Tsai KS (eds) (2015) *State capitalism, institutional adaptation, and the Chinese miracle*. Cambridge: Cambridge University Press.

Nölke A and Perry J (2007) The power of transnational private governance: Financialization and the IASB. *Business and Politics* 9(3): 1–25.

Omstedt M (2020) Reading risk: The practices, limits and politics of municipal bond rating. *Environment and Planning A: Economy and Space* 52(3): 611–631.

Pagliari S and Young KL (2020) How financialization is reproduced politically. In: Philip M, Daniel M and van der Zwan N (eds) *The Routledge International Handbook of Financialization*. Abingdon, Oxfordshire: Routledge, 113–124.

Pan F, Zhang F, Zhu S, et al. (2017) Developing by borrowing? Inter-jurisdictional competition, land finance and local debt accumulation in China. *Urban Studies* 54(4): 897–916.

Peck J (2017) Transatlantic city, part 1: Conjunctural urbanism. *Urban Studies* 54(1): 4–30.

Peck J and Whiteside H (2016) Financializing Detroit. *Economic Geography* 92(3): 235–268.

Peng MW, Bruton GD, Stan CV, et al. (2016) Theories of the (state-owned) firm. *Asia Pacific Journal of Management* 33: 293–317.

Petry J (2020) Financialization with Chinese characteristics? Exchanges, control and capital markets in authoritarian capitalism. *Economy and Society* 49(2): 213–238.

Phelps NA and Miao JT (2020) Varieties of urban entrepreneurialism. *Dialogues in Human Geography* 10(3): 304–321.

Pike A, O'Brien P, Strickland T, et al. (2019) *Financialising city statecraft and infrastructure*. Cheltenham, Gloucestershire: Edward Elgar Publishing.

Quinn S (2017) The miracles of bookkeeping": How budget politics link fiscal policies and financial markets. *American Journal of Sociology* 123(1): 48–85.

Raco M, Livingstone N and Durrant D (2019) Seeing like an investor: Urban development planning, financialisation, and investors' perceptions of London as an investment space. *European Planning Studies* 27(6): 1064–1082.

Robinson J and Attuyer K (2021) Extracting value, London style: Revisiting the role of the state in urban development. *International Journal of Urban and Regional Research* 45(2): 303–331.

Sanfelici D and Halbert L (2019) Financial market actors as urban policy-makers: The case of real estate investment trusts in Brazil. *Urban Geography* 40(1): 83–103.

Schwan M, Trampusch C and Fastenrath F (2021) Financialization of, not by the state. Exploring changes in the management of public debt and assets across Europe. *Review of International Political Economy* 28(4): 820–842.

Stent J (2016) *China's Banking Transformation: The Untold Story*. Oxford: Oxford University Press.

Sufian F (2009) Determinants of bank profitability in a developing economy: Empirical evidence from the China banking sector. *Journal of Asia-Pacific Business* 10(4): 281–307.

Trampusch C (2019) The financialization of the state: Government debt management reforms in New Zealand and Ireland. *Competition & Change* 23(1): 3–22.

Wainwright T and Manville G (2017) Financialization and the third sector: Innovation in social housing bond markets. *Environment and Planning A* 49(4): 819–838.

Waldron R (2019) Financialization, urban governance and the planning system: Utilizing 'development viability' as a policy narrative for the liberalization of Ireland's post-crash planning system. *International Journal of Urban and Regional Research* 43(4): 685–704.

Walker T, Zhang X, Zhang A, et al. (2021) Fact or fiction: Implicit government guarantees in China's corporate bond market. *Journal of International Money and Finance* 116: 102414.

Wang Y (2015) The rise of the 'shareholding state': Financialization of economic management in China. *Socio-Economic Review* 13(3): 603–625.

Wang Y (2020) Financialization and state transformations. In: Philip M, Daniel M and van der Zwan N (eds) *The Routledge International Handbook of Financialization*. Abingdon, Oxfordshire: Routledge, 188–199.

Weber R (2010) Selling city futures: The financialization of urban redevelopment policy. *Economic Geography* 86(3): 251–274.

Weber R (2021) Embedding futurity in urban governance: Redevelopment schemes and the time value of money. *Environment and Planning A: Economy and Space* 53(3): 503–524.

Whiteside H (2023) State and collective ownership: Thwarting and enabling financialization? *Urban Geography* 44(2): 326–336.

Wijburg G (2021) The de-financialization of housing: Towards a research agenda. *Housing Studies* 36(8): 1276–1293.

Wu F (2018) Planning centrality, market instruments: Governing Chinese urban transformation under state entrepreneurialism. *Urban Studies* 55(7): 1383–1399.

Wu F (2023) The long shadow of the state: Financializing the Chinese city. *Urban Geography* 44(1): 37–58.