

# State de-financialisation through incorporating local government bonds in the budgetary process in China

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## Abstract

In China, state-led financialisation through local government financing platforms resulted in a surge in local government debt. To manage financial risk, the central state introduced local government bonds (LGBs) to replace the platforms as the main financing source for infrastructure investment. The issuance of LGBs is subject to a budgetary process. We argue that LGBs mark a turn to state de-financialisation, as the local state's financial logic of maximising value extraction from the built environment is restricted by budgetary control. Through developing a database of LGB issuance in over 400 prefectural cities, this article reveals that local indebtedness determines the geographies of bond issuance, confirming the effect of the central state's objective of restricting local government debt. The dynamics of state-led financialisation change from the inter-jurisdictional competition in infrastructure investment among local states through local government financing platforms to a hierarchical control of LGB issuance led by the central state using the budget. Our findings show that financial expansion may mean state de-financialisation and fiscal resources are not only used to promote state-led financialisation but also to enable state de-financialisation.

**Keywords:** Local government bonds, state-led financialisation, de-financialisation, fiscal geographies, China

**JEL classifications:** G18, H72, H74, R51

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## 1. Introduction

The financialisation of the Chinese city is primarily led by the state (Wu, 2023). Financial engineering, such as land mortgaging and local government financing platforms, has attracted some attention (Pan et al., 2017; Wu, 2022). However, local government bonds (LGBs) have been less noticed. Promoted by the central state in 2015, LGBs have replaced local government financing platforms as the most important financial tool of the local state for infrastructure investment and economic growth. By the end of 2022, the balance of outstanding LGBs was 34.9 trillion Yuan,<sup>1</sup> ranking first in the domestic bond

1 The data are from the website of the Ministry of Finance, [http://kjhx.mof.gov.cn/yjbg/202302/t20230209\\_3865794.htm](http://kjhx.mof.gov.cn/yjbg/202302/t20230209_3865794.htm) (accessed June 30, 2023).

market. LGBs reveal new features, as they are incorporated into the budget and the local state needs to apply for a quota from the Ministry of Finance.

This article examines the budgetary process of LGBs and investigates the city-level distribution of bond issuance from 2015 to 2020 to reveal the influence of the process. Examining LGBs is important since they bring together financialised practice and budget management, adding insights to the debate over state-led (de-)financialisation and the changing form of urban governance (Peck and Whiteside, 2016; Thompson and Hepburn, 2020; August et al., 2022; Dagdeviren and Karwowski, 2022; Whiteside, 2023; Wu, 2023).

The literature suggests that, in addition to enabling financialisation by policy instruments, the state is 'dominated by financial narratives' because it regards financial techniques as a panacea for most urban policy problems (Aalbers, 2017a, 548). Policymaking is directed by financial instruments (Weber, 2010) and the state overtly propagandises financialised ideologies (Zhang, 2020). The state is subject to financial logic also because of pressure from private finance (August et al., 2022). This situation may be called the financialisation of the state (Schwan et al., 2021). However, the degree of the financialisation of the state varies in different contexts. Some suggest a more active role of the state, which is not a passive receiver of financial narratives or logic. Instead, the state tries to strike a balance between financial imperatives and policy objectives (Pike et al., 2019; Kay and Tapp, 2022).

The relationship between financial logic and policy objectives in China has been debated (Jiang and Waley, 2022; Wu, 2023). By investigating LGBs, we find that the bonds reflect a more extensive use of financial techniques by the Chinese state than in the earlier period of local government financing platforms, as the trading volumes of LGBs are much higher and keep increasing (Pan et al., 2017; Li et al., 2022). However, we argue that such financial expansion marks a turn to state de-financialisation because the local state's financial logic is more restricted than in the earlier period. LGB issuance is subject to a fiscal budgetary process and the local government debt caused by bond issuance cannot exceed local fiscal income. The local state cannot relentlessly extract value from the built environment as it did through the platforms.

Our case also improves the understanding of the relations between the multi-scalar state from an under-researched fiscal perspective in (de-)financialisation studies (Tapp and Kay, 2019; Zhang, 2020; Li et al., 2022). The budgetary control of LGBs results from the interactions between the central and local states. Fiscal resources are not only used as financial instruments to promote state-led financialisation but also in the strategy of the central state to restrict local government debt and the local state's financial logic to manage financial risk, enabling state de-financialisation.

By examining the city-level distribution of LGB issuance, we emphasise a less-noticed geographical methodology to (de-)financialisation studies. Compared with case analysis in selected local contexts, the distribution better reflects a general situation in China about whether the budgetary control really affects LGB issuance. The distribution applies a 'spatialised conjunctural analysis' (Leitner and Sheppard, 2020) by connecting higher-scale national policy to lower-scale bond issuance, and avoids analysing by using some typical cities and coming to partial conclusions (Peck, 2017). Meanwhile, the distribution allows for meso-level findings, for example, the inter-jurisdictional competition which shaped the financialised landscape in the earlier period of local government financing platforms did not significantly affect the distribution of LGB issuance. Case analysis can hardly generate such findings.

The rest of the article is structured as follows. The next section reviews the literature on state-led financialisation and de-financialisation, followed by a section that introduces methodology. Section 4 examines state-led financialisation before LGBs were introduced in China. Section 5 investigates the budgetary process of LGBs. Section 6 analyses the effect of budgetary constraints on the landscape of bond issuance. Section 7 discusses how LGBs achieve state de-financialisation and concludes.

## 2. State-led (de-)financialisation

### 2.1. Financialisation

Financialisation suggests that financial elements are increasingly important and transform economies, states, firms and households (Aalbers, 2017b). The financialisation of the city mainly means the transformation of the built environment into tradable financial assets through financial engineering to extract value for the state and private finance (Aalbers, 2020; Fernandez and Aalbers, 2020). Some scholars advocate the term ‘state-led’ financialisation to suggest that the state plays a leading role in the transformation. According to Whiteside (2023, 327), state-led financialisation is understood in two aspects. First, the state enables financialisation by designing monetary and fiscal policies that create a favourable environment for financial capital circulation, such as permission for private investors to access previously inaccessible sectors (Adkins et al., 2020). Nonetheless, it has been increasingly acknowledged that the state is not just an enabler. The process of financialisation becomes internal to the state, i.e. the state absorbs financial logic in its operation, which is the second modality of state-led financialisation. The state uses financial innovations to formulate deals and establishes or reconfigures state institutions using financial market principles (Kirkpatrick and Smith, 2011; Wang, 2015; Lagna, 2016; Peck and Whiteside, 2016; Sanfelici and Halbert, 2019; Belotti, 2021; Weber, 2021; Liu and Dixon, 2022). This can be broadly understood as the ‘financialisation of the state’ (Karwowski, 2019; Schwan et al., 2021; Maron and Williams, 2023).

With financial logic, the state performs a technocratic mode of governance based on calculative devices to prioritise value extraction from the built environment (Pike and Pollard, 2010; Van Loon et al., 2019). Such a path might undermine social policy agendas, for example, social projects need to make enough returns for investors and the intended targets may be eroded (Lake, 2016; Weber, 2021), saddling the state with massive debt and consequent economic and political risks (Beswick and Penny, 2018; Klink et al., 2020). Balancing financial logic and policy objectives is a puzzle for the state.

One of the most important reasons for state-led financialisation in the Anglo-Saxon context is the fiscal shortage since the 1970s (Weber, 2010; Whiteside, 2016). The state has had to implement austerity policies to cut expenditure and rely on private investment to (re)develop the city (Peck, 2012). It needs to follow the financialised rules imposed by private finance, which uses city (re)development for value extraction. The state’s policy objectives are usually secondary to private enterprise’s financial interests (August et al., 2022). However, the situation may differ elsewhere because the financialisation process is embedded in its ‘financial context’ and hence historically and geographically contingent (Christophers, 2019).

State-led financialisation was evident in China in the early 2010s (Pan et al., 2021; Wu, 2023). Facing a fiscal shortage, the local state used local government financing platforms to extract value from the built environment to finance infrastructure projects (Feng et al.,

2022). The platforms relied on various forms of financial engineering based on land collateral and payment guarantees from the local state to raise money from the market (Wu, 2022). The use of these platforms reflected the local state's financial logic of maximising value extraction. This logic was not affected by private finance because the investors were mostly state-owned commercial banks. Instead, it was politically motivated, as the local state tried to finance more infrastructure projects to create opportunities for career promotion (Pan et al., 2017).

## 2.2. De-financialisation

Most recently, a small number of scholars have tried to identify a trend of de-financialisation of the economy, though the influence of financial elements has hardly waned and rather keeps increasing. The most common understanding of de-financialisation is that the term describes measures for restricting financial elements. The state usually plays an important role in this process. Ban and Bohle (2021, 878) define de-financialisation as 'an attempt to lengthen time horizons for investors, cut the interest rates originating in the subordinate currency positions, reduce forex lending and the excessive degree of external vulnerability for domestic bonds'. This definition is empirically based on the examination of state actions in the financial sector in Hungary, Romania and Latvia. Gotoh (2021) does not explicitly define de-financialisation but suggests that the 'de-financialisation of consumption' in Japan is reflected by restrictions on consumer lending and borrowing. In 2006, the Supreme Court of Japan limited the amount of loans from consumer lenders to one-third of a borrower's gross annual income, reversing the previous trend of financialisation by consumer credit expansion (Gotoh, 2021, 404). Wijburg (2021) examines the de-financialisation of the housing economy and emphasises the role of the state in issuing regulations on curbing short-term oriented investment, investing in affordable housing with government funding and reducing the involvement of the financial sector.

Understandably, the definitions or interpretations of de-financialisation are diverse and context-specific mainly because the definition of financialisation is all-encompassing (Christophers, 2015). Anything that reflects the importance of financial elements can be a sign of financialisation. Thus, de-financialisation does not necessarily mean a decrease in the overall importance of finance, which is often reflected by a declining number of financial activities. Instead, it can be used to suggest any aspect of the retreat of financial actors, like the examples above which show restraints on short-termism or declining profits for financial investors.

Based on LGBs, we define state de-financialisation as the reduced financial logic of the local state. Such a definition emphasises financial logic. The literature often mentions financial logic but needs to clarify more (Christophers, 2015). For the state, it may mean the idea that 'growth must rely on the capital market', increasing reliance on financial instruments, governing under financial market principles like shareholder and bondholder value, prioritising the exchange value over the use value of public assets for value extraction, etc. (Peck and Whiteside, 2016; Aalbers, 2017a; Jiang and Waley, 2022; Wu, 2023). We deem that as long as the state reflects any of the aspects above, it possesses financial logic. Then, a decrease in any aspect signifies state de-financialisation.

The state leads the financialisation of the city mainly because it needs financial innovations for financing infrastructure investment. The main reason why the state in some countries has recently de-financialised is that financial elements started to undermine economic,

social and political stability. The transformation of the built environment into financial assets causes various problems because exchange value is prioritised over use value. For example, commercial and social housing have become increasingly unaffordable, and the property management and supporting infrastructure have been facing the problem of poor user experiences because the financialised mode of housing investment pays more attention to making quick money than to thinking about customers (Haila, 2015; Lima, 2020; Nethercote, 2020). Hence, social movements arise to resist financialisation, threatening social stability (Fields, 2017; Wijburg, 2021). The final goal of the state promoting (de-)financialisation is to protect political stability and legitimacy (Wang, 2020). As long as financialisation poses a threat, the state may try to de-financialise to varying extents.

We argue that LGBs mark the turn to state de-financialisation because the budgetary control of the bonds restricts the local state's effort to maximise value extraction from the built environment as it did through local government financing platforms. The budget requires that the local government debt caused by LGB issuance cannot exceed local fiscal income. The local state's financial logic in terms of shareholder value maximisation and the priority of value extraction is reduced. Nonetheless, the Chinese state indeed increasingly relies on financial instruments, as the trading volumes of LGBs keep increasing rapidly.

To clarify, first, we believe that state de-financialisation does not need a decrease in every aspect of financial logic mentioned earlier. Second, state de-financialisation is a process that highlights a change in direction. The increasing reliance of the local state on financial instruments was evident in the earlier period of local government financing platforms, as the trading volumes of the instruments of the platforms had increased rapidly. This increasing reliance is not a new feature brought about by LGBs. In other words, LGBs do not change direction in this aspect. Nonetheless, the local state's maximisation of shareholder value and prioritisation of value extraction are restricted by the budgetary control of LGBs. The direction in these two aspects is indeed changed by LGBs. Therefore, we argue that LGBs mark a turn to state de-financialisation, and financial expansion may also mean state de-financialisation.

### 2.3. The multi-scalar and fiscal perspectives

Some studies examine the multi-scalar state, and how the relations between different state levels are diversified and context-specific. The central and local states may work together with the common goal of providing favourable environments for private investment into the built environment (Belotti and Arbaci, 2021), or they may have different attitudes and adopt contradictory measures on promoting or restricting financialisation (Zhang, 2020; Feng et al., 2022). When there are conflicts, which level can prioritise its interests depends on its capacity. The financialised landscape is a balance of interests. Similarly, we deem that state de-financialisation results from the interactions within the multi-scalar state when different state levels participate in the process.

The budgetary control of LGB issuance highlights an under-researched fiscal perspective of financialisation. Tapp and Kay (2019, 573) suggest that existing studies have overly focused on the 'conquest of capital' while issues around taxation 'recede into the background behind debates'. They use the term 'fiscal geographies' to describe the research on how the multi-scalar state shapes urban provisioning through 'tax and other budgetary systems'. They suggest that the 'contours of the tax system ... produce distinctive geographies and modes of accumulation, allowing certain forms of financialisation and

investment while disincentivising others. ... Given the fact that finance capital and government revenue are entwined but distinctive, we argue that closer engagement with specifically fiscal geographies might be one means of addressing some of the conceptual stretching and other “limits to financialization” (Christophers, 2015, 2). To support this argument, Tapp and Kay (2019) set out some examples of fiscal resources being designed as financial engineering, such as historical federal tax credits (Kay and Tapp, 2022) and tax increment financing (Weber, 2010).

We agree with the argument. But in contrast to exploring the possibilities of fiscal resources being financial instruments that promote state-led financialisation, we argue that fiscal resources are used to enable a turn to state de-financialisation by restricting the financial logic of the local state. The central state uses LGBs as a financial solution to an urgent fiscal policy goal of restricting local government debt and the local state’s financial logic to manage financial risk. This argument expands the application of fiscal geographies in (de-)financialisation studies and echoes the view of Wu (2023, 53) that the financial logic of the Chinese state is partial. Although the financial imperative is salient in state governance in China, it is created by the strategic considerations of the state. Financial logic is important but does not ‘occupy a central position’. The state may reduce or increase the financial logic according to particular policy objectives.

### 3. Methodology

The article uses a two-step method based on qualitative and quantitative data. First, analysis of policy documents, relevant news and reports from government websites and reliable platforms is used to study LGBs and the budget. This first step mainly examines the procedure of bond deployment and issuance under the budget to see how the central state intends to restrict local government debt and the local state’s financial logic. Second, this article examines the city-level distribution of the issuance of LGBs by producing thematic maps and building an econometric model to verify whether the budget really affects bond issuance across the country. More than 20,000 disclosed reports on LGB issuance from 2015 to 2020 were collected from the China Central Depository & Clearing platform to produce the city-level distribution manually. The econometric model’s independent variables are mainly from China’s statistical yearbooks, the CELMA platform established by the Ministry of Finance which publishes LGB data on national and provincial levels,<sup>2</sup> and the WIND database, a renowned financial database in China. Analytically speaking, the first step describes how the central state plans to use fiscal resources to promote state de-financialisation, and the second step tells us whether the plan works in different cities.

Through the second step, we emphasise a less-noticed geographical methodology to (de-)financialisation studies. As Dagdeviren and Karwowski (2022) suggest, few studies show (de-)financialisation at disaggregated geographical scales. Our geographical methodology provides an alternative to the political–economic approach that emphasises case analysis, allowing for meso-level findings (e.g. inter-jurisdictional competition) to examine differences, similarities and connections between cities when it is not feasible to select too many comparative cases.

This approach echoes the ‘spatialised conjunctural analysis’, which ‘stretches explanatory frameworks ... outwards in space (identifying how local events are shaped by distant

2 <http://www.celma.org.cn/> (accessed June 30, 2023).

processes), and upwards and downwards in terms of geographical scale (whereby events at a particular scale may be shaped by both higher- and lower-scale processes)' (Leitner and Sheppard, 2020, 495). The geography of city-level LGB issuance demonstrates how a policy designed at the national level is implemented in different cities, enabling 'thinking about political intervention beyond place-based strategies attuned to local conditions' (Leitner and Sheppard, 2020).

Moreover, Peck (2017, 26) argues that the positionality of cities (or any scale on which analysis happens) is not in the form of 'cores and peripheries, or heartlands and hinterlands, but of uneven spatial development, heterogeneous fields', and conjunctural theorising 'must reach across patterned differences and variegated landscapes'. The distribution shows all cities under different circumstances without any hierarchy in importance and explains why there are differences in every circumstance. Thus, our analysis better reflects the common situation in China.

This approach also helps us to understand China's least known financialised landscape. Pan et al. (2017) explore the spatial dynamics of *Chengtou* bonds until 2013; these are the corporate bonds issued by local government financing platforms. This article updates their work to describe China's most recent geography of state-led (de-)financialisation. The city-level data on LGBs have been manually created from over 20,000 disclosed reports and are thus original. To our knowledge, this is the first article exploring LGBs at the city level. While the earlier spatiality was mainly caused by entrepreneurial governance and inter-city competition (Pan et al., 2017), LGBs reveal the influence of local indebtedness and financial risk.

#### 4. State-led financialisation in China

State-led financialisation in China is an outcome of the multiple fiscal system reforms.<sup>3</sup> The fiscal contracting system initiated by the central state in 1980 required local state to turn in a certain proportion of budgetary income (Wong, 1992). The rest was used for expenditure and the central state would aid provinces with deficits by fiscal transfer. As a result, local fiscal income surged, but the central share of national fiscal revenue dropped to less than 30% in the early 1990s. To increase revenue, the central state enacted a tax reform in 1994 to consolidate tax categories and collect more local budgetary income (Wong, 2000). The tax was divided into central, local and shared taxes. The central state received the central tax and more than 50% of the shared tax, and the rest belonged to the local state. This tax reform considerably reduced local budgetary income because the shared tax, including corporate income tax, individual income tax, value-added tax and three other types of tax, comprised the major share of local tax income. However, most expenditure tasks were left to the local state, particularly infrastructure investment (Zhang, 1999).

Private companies were hardly involved in infrastructure investment in China, so the expenditure pressure on the local state could not be reduced. The gap between revenue and expenditure forced the local state to find more 'extra-budgetary' income out of reach of the central state for infrastructure investment (Wong, 2000). Land transfer provided the most important extra-budgetary income in the 2000s by leasing land use rights to the capital market (Cao et al., 2008).

3 The local state in this article includes provincial-, municipal- and county-level states.

Local government financing platforms—local-state-owned companies for funding infrastructure projects and operating established infrastructure—came to the fore in 2009, marking the start of state-led financialisation (Pan et al., 2017). In late 2008, the State Council initiated a four trillion Yuan economic stimulus package to counter the global financial crisis (Naughton, 2009). The package required the local state to invest more than two trillion Yuan by the end of 2010, mostly in infrastructure projects, and land transfer could not provide enough funds. The local state established the platforms as a solution, which relied heavily on financial innovations to raise money.

Land was injected into these platforms so that the land use rights could be used as collateral and the local state issued guarantees for investors to repay with fiscal revenue if the platforms failed; these were done to help the platforms obtain bank loans, issue *Chengtou* bonds and use other short-term, speculative and risky financial tools such as structured notes, trust products, financial leases, etc. These instruments promoted securitisation (Jiang and Waley, 2022). The investors were mostly state-owned commercial banks. They usually used wealth management products composed of investments from households, individuals and small-to-medium firms to invest in the instruments, promoting the growth of a poorly supervised shadow banking sector (Wu, 2023).

The main reason for this popular use of the platforms was that the local state could easily control it. The financing methods of the platforms did not have complex financial mechanisms, require a high degree of transparency or involve private investors that emphasised financial standards. For example, the use right of a piece of land was collateralised to different deals, and the local state issued guarantees many times even as the amount of the deals far exceeded its fiscal income. This was also why widespread financial tools such as real-estate investment trusts with a more established market-based financing mode supported by diversified investors were rarely used in China (Theurillat, 2022).

The platforms reflect state-led financialisation because they promoted securitisation and, more importantly, the local state revealed the financial logic of the reliance on financial instruments and shareholder value by maximising value extraction from land collateral and government credit. The financial instruments could hardly create direct profits for the local state as the major shareholder, but more infrastructure projects undertaken meant more income elsewhere. Project construction created more jobs, more consumption and more tax income. After project completion, new user fees from the infrastructure, new investment and people attracted to the city, more tax income and other income generated by an improved city image all contributed to local fiscal income.

Jiang and Waley (2022) believe that the platforms did not reveal shareholder value because the executives did not pursue short-term revenue maximisation. This is true. However, when we look beyond the platforms and examine the local state, we find that the platforms undertaking projects contributed to maximising the profits of the local state. Although there are indeed debates on whether newly built infrastructure in China is ever used or creates income for the city, such as ghost cities (Furlong, 2022), it cannot be denied that debt-fuelled investment in infrastructure has been the primary way to maintain economic growth since the 2010s. In most cases, infrastructure creates considerable income for the local state.

The financial logic of the local state is politically motivated. In China, alignment with central policies and performance on driving growth are key to local official promotion (Li and Zhou, 2005; Wu, 2018). Local officials were thus motivated to achieve the stimulus target required by the central state and promoted growth by infrastructure investment. As

promotion opportunities are limited, local officials try to outperform their peers. This explains the inter-jurisdictional competition in establishing the platforms (Pan et al., 2017). Financialisation is more like a tool to pursue development goals than an intended policy objective. Thus, the financial logic could not be separated from the political logic, and it was up to the interactions within the multi-scalar state instead of being imposed on the state by the financial market and private investors (Zhang and Wu, 2022).

## 5. The budgetary process of LGBs

The Ministry of Finance designed LGBs in 2009. Still, they did not gain much attention until 2015, when the revised Budget Law<sup>4</sup> stipulated that ‘the local state can directly borrow from capital markets for infrastructure investment *only* through LGBs’. LGBs have since become the major financing source for infrastructure projects. Figure 1 shows that LGBs reflect financial expansion, as the trading volume of LGBs in 2016 (6.05 trillion Yuan) was close to that of *Chengtou* bonds from 2009 to 2015 (6.38 trillion Yuan).<sup>5</sup>

Unlike land transfer and local state fostered land transfer and local government financing platforms, while LGBs, which have become the major financial tool, are promoted by the central state (Li et al., 2022). Table 1 shows the comparison between LGBs and *Chengtou* bonds. Some aspects are worth special attention.

First, the provincial government is the bond issuer that issues bonds for itself and the lower-level governments in its jurisdiction. It transfers money downwards after bond issuance and collects repayment from the lower-level governments to repay investors. The repayment for general bonds comes from fiscal income, and that for special bonds is mainly from project income. LGB issuance does not need land use rights as collateral but relies solely on the credit of the provincial government.

Second, the underwriters and investors are still mostly state-owned commercial banks, which still buy LGBs mainly through wealth management products. Meanwhile, following central policies, many banks have recently started to sell LGBs they underwrite directly to households, individuals and small-to-medium firms over the counter.<sup>6</sup> The central state almost solely makes the policies of LGBs with little consultation from the local state. It does not need to worry much about resistance as China enforces a centralised political regime which gives little power to the local state to resist central policies.

In 2016, the Ministry of Finance enacted two policy documents named ‘Management on the budget for local government special debt’<sup>7</sup> and ‘Management on the budget for local government general debt’.<sup>8</sup> The documents incorporated LGBs into the budget system, as local government special/general debt is *only* produced by LGB issuance. The implications are as follows.

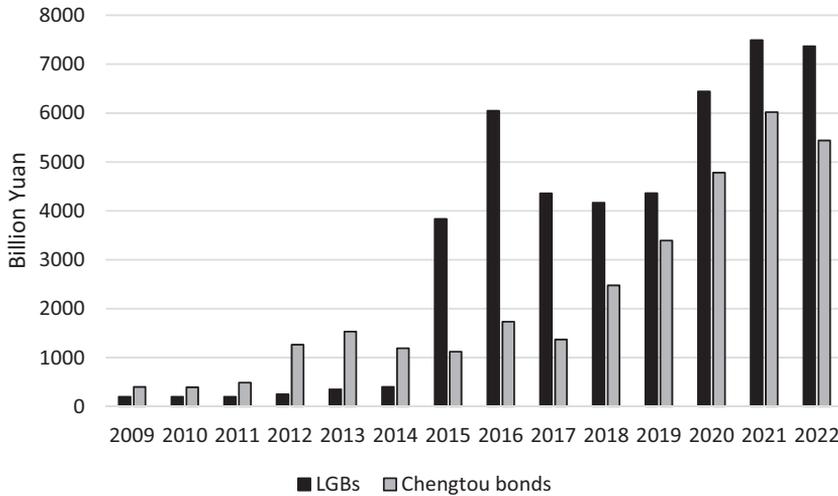
4 The law is at [http://jrs.mof.gov.cn/zhuanti2019/ppp/zcfbPPP/201410/t20141030\\_1155100.htm](http://jrs.mof.gov.cn/zhuanti2019/ppp/zcfbPPP/201410/t20141030_1155100.htm) (accessed June 30, 2023).

5 There is no data on other financial instruments of the platforms disclosed. From 2009 to 2014, LGBs experienced a period of policy experiment with small-amount national quotas less than 400 billion Yuan. We do not discuss the period here as the amount was small and LGBs were not incorporated into the budget and thus were less related to our argument. For details, see Li et al. (2022).

6 The policy is at [http://www.mof.gov.cn/gkml/caizhengwengao/wg2021/wg202101/202106/t20210604\\_3714686.htm](http://www.mof.gov.cn/gkml/caizhengwengao/wg2021/wg202101/202106/t20210604_3714686.htm) (accessed June 30, 2023).

7 The policy is at [http://kjhx.mof.gov.cn/zcfgx/201902/t20190227\\_3179454.htm](http://kjhx.mof.gov.cn/zcfgx/201902/t20190227_3179454.htm) (accessed June 30, 2023).

8 The policy is at [http://www.gov.cn/gongbao/content/2017/content\\_5208218.htm](http://www.gov.cn/gongbao/content/2017/content_5208218.htm) (accessed June 30, 2023).



**Figure 1.** The issuance of LGBs and *Chengtou* bonds from 2009 to 2022.

Source: The CELMA platform and the WIND database.

First, LGBs reflect much more direct intervention by the central state than in the earlier period. The budget proposes a bond quota system based on an application procedure. County-level government departments using LGB capital in the next year need to prepare application materials based on two main aspects. One is project information, including the contribution to growth, environment, society and other aspects; construction plans; yields and repayment schedules and profiles of the developers. The other is local financial situations such as government debt, GDP, investment and consumption.

The finance department collects the applications and submits them to the municipal counterpart, which hands in the municipal applications and those from the counties to the provincial counterpart. The province submits applications to the Ministry of Finance. The ministry further evaluates applications by ‘debt risks, fiscal capacity, national policy discourses, demand from projects and other conditions’, according to the budget policy documents, and then issues a quota for every province with the consent of the National People’s Congress.<sup>9</sup> In 2015, the State Council sets the alarm threshold of the ratio of the local government debt balance to local fiscal income as 100%.<sup>10</sup> The local state that has a higher ratio would have a smaller quota approved or even be prohibited from financing projects by LGBs. With the quota, the provincial finance department issues LGBs and transfers money to provincial projects and municipal governments after the approval of the provincial People’s Congress. The cities and counties follow a similar procedure. In the previous situations, the central state hardly intervened directly in local infrastructure investment. With LGBs, the central state is closely involved and holds the final say on the amount of bonds for the local state.

9 The People’s Congress is the authority that executes state power on behalf of the people. Governments implement decisions made by the People’s Congress and are supervised by it.

10 The news is at [http://www.xinhuanet.com/politics/2015-08/29/c\\_1116414320.htm?from=message&isappin\\_stalled=0](http://www.xinhuanet.com/politics/2015-08/29/c_1116414320.htm?from=message&isappin_stalled=0) (accessed June 30, 2023).

**Table 1.** LGBs versus *Chengtou* bonds<sup>a</sup>

	LGBs	<i>Chengtou</i> bonds
Type of bonds	Government bonds	Corporate bonds
Categories of bonds	General bonds for non-profit projects. Special bonds for projects with yields.	/
Issuer	Provincial governments and five appointed municipal governments. <sup>b</sup>	Local government financing platforms.
Issuing requirements	Every level of the local state must apply for the bond quota from the Ministry of Finance in advance.	/
Credit enhancements	The credit of provincial governments.	Payment guarantees from the local state (in secret) and land as physical collateral.
Interest rate	Low and close to treasury bonds.	High and similar to private corporate bonds.
Maturity period	Long and usually more than seven years. Up to 30 years.	Short and usually less than five years. Down to a few months.
Investors	Mostly state-owned commercial banks.	The same.
Issuing form	Mostly public bidding.	The same.
Issuing frequency	Several times a year. Every issue of LGBs consists of the bonds for hundreds of projects in cities and counties.	Anytime necessary.
Type of bond income	Budgetary income of the local state.	The income of local government financing platforms and the extra-budgetary income of the local state.
Repayment	General bonds are paid by fiscal income of the local state. Special bonds are paid mostly by project revenue in the future.	Local fiscal income and the income of local government financing platforms.

<sup>a</sup>The characteristics of *Chengtou* bonds are before 2015. The specific interest rates, issuing form, issuing frequency and amount of every issue are decided by the bond issuer under central policies.

<sup>b</sup>Shenzhen, Ningbo, Qingdao, Xiamen and Dalian.

Source: Disclosed reports, policy documents and the WIND database.

Second, incorporating LGBs into the budget reflects that the central state uses the bonds to restrict local government debt and the local state's financial logic of maximising value extraction to manage financial risk. In late 2014, the State Council prohibited the local state from issuing payment guarantees on behalf of local government financing platforms. The platforms' debt is no longer related to the local state (Feng et al., 2022). As is shown in Table 1, the lower interest rate and the longer maturity period of LGBs compared with *Chengtou* bonds reduce the financing cost for the local state and slow the growth of local government debt.

More importantly, counting the bonds as budgetary income matches bond issuance to local fiscal income. The government budgeting designed by the central state requires that the departments using money report the budget plan for the next year to the finance department, which feeds back with an upper limit based on the financing requirements and available fiscal funds. Next, the departments spending money amend the plan accordingly

and submit it again to the finance department to produce the draft budget. The draft budget is examined, modified (if necessary) and approved by the People's Congress at this level to become the final budget assigned to different departments. The budget brings LGBs into horizontal supervision from the same-level finance department that requires the capital leverage to match the fiscal circumstance, together with vertical intervention from the Ministry of Finance, which limits the local state's attempt to borrow relentlessly as it did through local government financing platforms.

## 6. The landscape of bond issuance under budgetary constraints

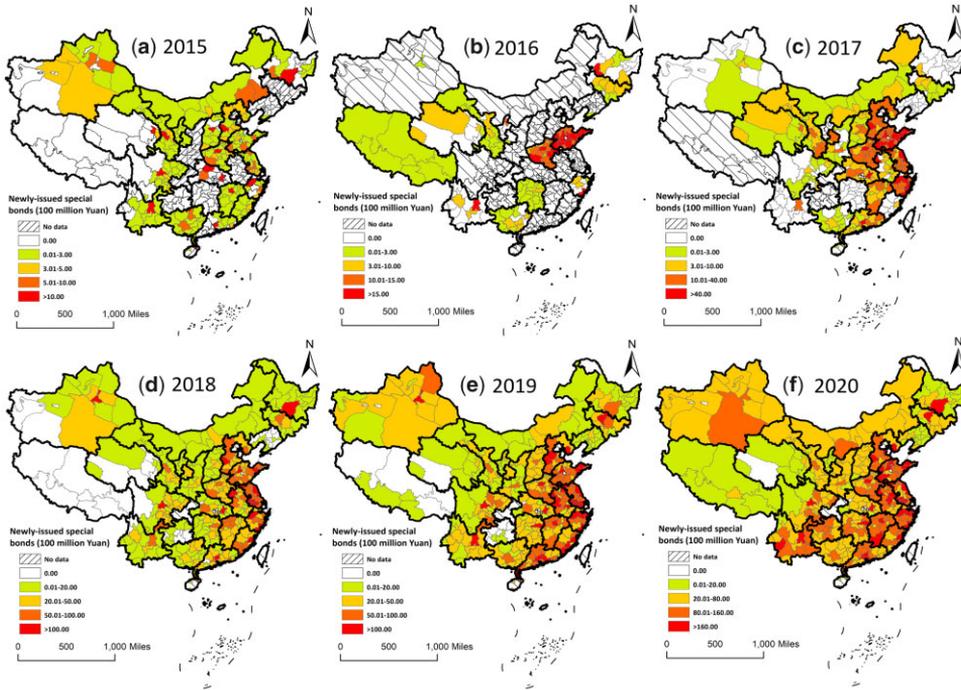
Policy documents help us know the intention of the central state. Nevertheless, have the policy objectives been realised in local implementation? Describing the city-level distribution of LGB issuance and identifying the factors that form it answer the question and show the actual effects of budgetary control over bond issuance. The distribution also generates new meso-level findings and knowledge about state-led (de-)financialisation in China. The following describes the spatial pattern and then identifies the factors that form the pattern.

This article uses the data on city-level issuance of newly issued special bonds to study the spatial distribution of LGBs between 2015 and 2020. Newly issued special bonds are a subcategory of LGBs and are specially for new financing requirements from new or ongoing projects with yields. For example, if the local state intends to finance the construction of a new toll road in the next 10 years, it can apply for these bonds several times within the construction period, based on progress. Newly issued special bonds are crucial for the local state under the ever-growing demand for rapid development. Meanwhile, only the data for this subcategory of LGBs are available at the city level, as disclosed reports provide the city location of every project funded by these bonds. The spatial pattern is shown in [Figure 2](#).

China is divided into four economic regions based on the economy and geographical location: the east, the middle, the west and the northeast. The east is the most developed region on average, followed by the middle. Then comes the northeast, while the west is the least developed. Cities issuing more bonds agglomerated in the east from 2015 to 2018. Cities in the middle caught up in 2019. Some western cities, particularly those in the southwest, showed large amounts of issuance in 2020. At the end of 2020, cities with large issuing amounts of bonds were scattered across the country. It seems that regions with better economic development issued more bonds. Nonetheless, the positive relationship between the economy and bond issuance may not exist at the city level and needs to be verified by an econometric model.

The issuance of cities within the same province did not differ notably. Still, the capital city and cities at the deputy-provincial level between the provincial and municipal levels outperformed the rest. This was more obvious in the middle and west, while many eastern cities had similarly high issuing amounts.

An econometric model was built to identify the factors that shape the distribution. The dependent variable is measured as the amount of bonds city  $i$  issued in year  $t$  ( $issuance_{i,t}$ ). The independent variables are shown in [Table 2](#). To clarify, the independent variables do not include any features of LGBs such as bond price, interest rates, maturity periods or others. Though they differ across cities, they do not affect the amount of bonds a city can issue. When deciding the quotas, the central state considers mostly debt risks and project quality instead of such features. These features are likely to affect investors. According to



**Figure 2.** The spatial distribution of LGB issuance from 2015 to 2020. *Source:* Disclosed reports. Map prepared by the authors.

**Table 2.** The independent variables

Expression	Definition
$h\_indebted_{i,t}$	The variable is 1 if the ratio of newly issued special bond issuance to GDP of city $i$ in year $t$ is in the top 10% of all the ratios calculated in year $t$ , otherwise 0.
$m\_indebted_{i,t}$	The variable is 1 if the ratio above is between the top 10% and 30%, otherwise 0.
$l\_indebted_{i,t}$	The variable is 1 if the ratio above falls in the last 70%, otherwise 0.
$pro\_h\_risk_{i,t}$	The variable is 1 if the ratio of government debt balance to fiscal income of province $i'$ in year $t$ is greater than 1.5, otherwise 0.
$pro\_m\_risk_{i,t}$	The variable is 1 if the ratio above is between 0.9 and 1.5, otherwise 0.
$pro\_l\_risk_{i,t}$	The variable is 1 if the ratio above is smaller than 0.9, otherwise 0.
$perGDP_{i,t}$	GDP per capita of city $i$ in year $t$ .
$GDP_{i,t}$	GDP of city $i$ in year $t$ .
$pro\_perGDP_{i',t}$	GDP per capita of province $i'$ in year $t$ .
$pro\_GDP_{i',t}$	GDP of province $i'$ in year $t$ .
$Chengtou_{i,t}$	The amount of <i>Chengtou</i> bonds issued by city $i$ in year $t$ .
$issuance\_rest_{i,t}$	The amount of newly issued special bonds issued by the other cities in the same province with city $i$ in year $t$ .
$deputy\_pro_i$	The variable is 1 if city $i$ is of the deputy-provincial level, otherwise 0.
$capital_i$	The variable is 1 if city $i$ is the provincial capital city, otherwise 0.
$popdensity_{i,t}$	The population density of city $i$ in year $t$ .

the disclosed reports, there was no case from 2015 to 2020 in which LGBs failed to be sold for the amount planned by the province, though the rate of oversubscription indeed differed across the country. Investors were willing to buy the bonds regardless of the differences in these features among provinces and cities. Therefore, the regression results in the following will not be interpreted from the perspective of investors who do not reveal their preferences and thus do not affect the trading volumes.

As the Ministry of Finance considers provincial- and city-level fiscal situations, independent variables are calculated by city  $i$  or province  $i'$  in year  $t$ . The core independent variables are the risk indicators for the city and province to reflect the policy objectives of managing financial risk. The International Monetary Fund<sup>11</sup> publishes a 'vulnerability indicator'. It suggests that a place is of low, moderate or high financial risk if the debt balance to fiscal income ratio is less than 90%, between 90% and 150% or greater than 150%, respectively. The variables of provincial financial risk are calculated accordingly. Although the State Council set 100% as the alarm threshold of the debt ratio, some provinces in the west and the northeast have exceeded the threshold since the late 2010s. LGBs are also the most important tool to maintain economic growth through infrastructure investment. Sometimes, the central state has to approve a larger quota for some provinces that have fewer ways of maintaining growth.

Because newly issued special bonds are only a part of the debt, city-level financial risk cannot be calculated by such thresholds. Some research institutes in China examine city-level debt ratios using different calculation methods and conclude that 10%, 20% and 70% of the cities were of high, moderate and low indebtedness, respectively, in the late 2010s.<sup>12</sup> While the fiscal income data of most cities are missing from the yearbooks, variables of city-level indebtedness are measured by the ratio of newly issued special bond issuance to GDP. The cities with a ratio in the top 10%, between the top 10% and 30% and the last 70% of the total are categorised as high-, moderate- and low-indebted, respectively.

The control variables are as follows. The economy reflected by GDP and GDP per capita of the city and province is used to verify the relationship between the economy and bond issuance. The inter-jurisdictional competition in LGB issuance is next. This variable is used to examine if the competition emphasised by Pan et al. (2017) still exerted influences. A variable is designed as the volume of newly issued special bonds issued by the other cities within a province, as the competition is believed to be more intense between cities within the same province. Li et al. (2022) suggest that local government financing platforms are still financing infrastructure projects as independent firms after the introduction of LGBs. The local state also relies on public-private partnerships and government-guided investment funds (Pan et al., 2021). These financing methods are the main areas for competition. Due to data availability and the importance of every financing channel, the amount of city-level *Chengtou* bond issuance is calculated as the other competition variable. The variables of administrative levels are used to verify the results shown in Figure 2, namely that cities with higher levels issue more bonds. A city's population density is the last variable, controlling location-specific effects.

LGB issuance is likely affected by the amount issued in the last year due to the accumulated debt risks considered by the Ministry of Finance. Therefore, there may be time-series

11 The report is at [https://www.intosaicommunity.net/wgpd/content/issais/DebtInd\\_i.pdf](https://www.intosaicommunity.net/wgpd/content/issais/DebtInd_i.pdf) (accessed June 30, 2023).

12 For example, a report conducted by China Guangfa Bank at <https://baijiahao.baidu.com/s?id=1688738237091447124&wfr=spider&for=pc> (accessed June 30, 2023).

autocorrelation of the dependent variable. We use the model of ‘system generalised method of moments (system GMM)’ which introduces the one-year lagged dependent variable as the instrumental variable to ameliorate the problem. All the independent variables except those of *Chengtou* bonds and administrative levels are lagged for one year to take effect. The natural logarithms of the dependent variable and the independent variables of the economy, inter-jurisdictional competition and population density are used in the regression.

The model is run for the nationwide samples and then for the groups of economic regions: the west and northeast, the middle and the east. The west and northeast are categorised into one group because they are similar in economic development and there are only three provinces in the northeast.  $pro\_l\_risk_{i,t-1}$  and  $l\_indebted_{i,t-1}$  are the base group for variables of provincial financial risk and city-level indebtedness, respectively. The model reports a robust standard error. The Arellano–Bond test is conducted and the system GMM is proven to be properly used. The model is as follows. The study period of the model is from 2015 to 2020; the results are in Table 3.

$$\begin{aligned}
 issuance_{i,t} = & \beta_1 l\_indebted_{i,t-1} + \beta_2 m\_indebted_{i,t-1} + \beta_3 h\_indebted_{i,t-1} + \beta_4 pro\_l\_risk_{i,t-1} \\
 & + \beta_5 pro\_m\_risk_{i,t-1} + \beta_6 pro\_h\_risk_{i,t-1} + \beta_7 perGDP_{i,t-1} + \beta_8 GDP_{i,t-1} \\
 & + \beta_9 pro\_perGDP_{i,t-1} + \beta_{10} pro\_GDP_{i,t-1} + \beta_{11} Chengtou_{i,t} \\
 & + \beta_{12} issuance\_rest_{i,t-1} + \beta_{13} deputy\_pro_i + \beta_{14} capital_i + \beta_{15} popdensity_{i,t-1} \\
 & + \varepsilon_{i,t}.
 \end{aligned}
 \tag{1}$$

Several findings are summarised.  $h\_indebted_{i,t-1}$  is negatively significant in every group, while  $m\_indebted_{i,t-1}$  exerts a negative effect only in the nationwide and the west

**Table 3.** Estimation results for city-level bond issuance

Variables	Nationwide	West and northeast	Middle	East
L.issuance <sub>i,t</sub>	1.42***	1.15***	0.93***	1.03*
m_indebted <sub>i,t-1</sub>	-23.29***	-11.11***	-8.57	-25.64
h_indebted <sub>i,t-1</sub>	-81.15***	-39.36***	-131.1***	-62.27**
pro_m_risk <sub>i,t-1</sub>	-6.36	-10.45***	90.51	1.12
pro_h_risk <sub>i,t-1</sub>	-12.11	-15.91*		
perGDP <sub>i,t-1</sub>	-0.61	20.91	21.27	2.56
GDP <sub>i,t-1</sub>	-0.31	-60.96*	-59.97	17.53
pro_perGDP <sub>i,t-1</sub>	-18.13	87.82***	101	-90.35*
pro_GDP <sub>i,t-1</sub>	187.4***	69.56**	114.1*	241.8***
Chengtou <sub>i,t</sub>	0.32	-0.81	2.63	3.47
issuance_rest <sub>i,t-1</sub>	-0.04***	-0.003	-0.02	-0.02
deputy_pro <sub>i</sub>	-492.1*	123.8	567.5**	-421.2***
capital <sub>i</sub>	-321.8	335.3**	116.3	-1478.3
popdensity <sub>i,t-1</sub>	-4.83**	-3.87	-0.22	-9.11**
Constant <sub>i,t</sub>	-1566.0***	-1401.0***	-2053.6***	-1485.4***
Number of observations	1559	711	299	549

\*Significant at the 10% level,  
 \*\*significant at the 5% level,  
 \*\*\*significant at the 1% level.

and northeast groups.  $\text{pro\_m\_risk}_{i,t-1}$  and  $\text{pro\_h\_risk}_{i,t-1}$  are insignificant in most groups except that they are negatively related in the west and northeast group.

These findings suggest that, in general, the higher the level of indebtedness and associated financial risk a city possessed, the less the amount of bonds it could issue. But in the middle and the east, cities categorised as moderately indebted did not necessarily issue less than those with low indebtedness. The possible explanation is that cities in these two regions were relatively developed and the central state believed that even if they were on a moderate debt level, they could pay the investors on time. In comparison, the central state was more cautious about the cities in the west and northeast.

Although the provincial government issues and repays LGBs, the lower-level governments need to prepare the money for repayment. A low-indebted city could issue more bonds even as the province had a higher level of debt. However, the province's high debt level hampered its cities' bond issuance in the west and northeast. Cities in these regions were more vulnerable. They might have less debt but they also lacked economic capacity and resilience. There was a higher possibility in these cities that difficulties in other aspects might lead to a bond default, and the province, as the bond issuer, needed to figure out how to pay the investors on time. In this case, the central state also considered the indebtedness of the province to lower the risks.

$\text{perGDP}_{i,t-1}$  and  $\text{GDP}_{i,t-1}$  are insignificant in almost every group;  $\text{pro\_pergdp}_{i,t-1}$  does not exert influence, but  $\text{pro\_gdp}_{i,t-1}$  is positively related in all groups. The economic capacity of the city hardly affected bond issuance. Together with the significance of the city-level risk indicators, these findings suggest that restricting financial risk was more important for bond issuance than economic potential. A higher degree of fiscal deficits deterred a city from obtaining and issuing bonds even if it had a strong economy. This did not mean that the city's economy was unimportant. As mentioned above, cities in the middle and the east region with a moderate debt level but with a strong economy did not have to issue less than those with low indebtedness. In contrast, a better provincial economy contributed to more city-level bond issuance. The provincial government is the official bond issuer and payer and is regarded as the last resort in case a city cannot afford repayment. A strong province, reflected by a higher GDP that highlighted the scale of the economy, boosted the confidence of the central state in allocating more bonds to the cities.

The variables for inter-jurisdictional competition are insignificant in most groups. The amount a city can issue is decided by the Ministry of Finance and the provincial government, while the city's intention of competing in infrastructure investment was not among the priorities considered. It should be noted that the city- and county-level governments are still enthusiastic about competition in economic growth through infrastructure investment (Su, 2022); only their new financial tool, i.e., LGBs, restricted the space for competition.  $\text{deputy\_pro}_i$  is negatively significant in the nationwide and the east group, positively significant in the middle and insignificant in the west and northeast.  $\text{capital}_i$  is positively related in the west and northeast but is insignificant in other groups. There are 15 deputy-provincial cities in China. Eight of them are in the east, six are in the west and northeast and one is in the middle. Ten of them are also provincial capital cities. On average, cities in the middle and the west and northeast are less developed. Many provinces adopted the strategy that prioritised the development of capital or deputy-provincial cities or a metropolitan area with these cities as the centre.<sup>13</sup> Examples include Chengdu (capital and

13 The news is at <https://www.chyxx.com/difang/201702/493330.html> (accessed June 30, 2023).

deputy-provincial) in the west, Wuhan (capital and deputy-provincial) in the middle and Dalian (deputy-provincial) in the northeast. Though the provinces intended to use these cities to drive the growth of the rest, there was a widening inter-city disparity. These cities were likely to obtain significantly larger quotas due to their prior position in provincial development strategies. However, the situation was different in the east. A province usually had strong cities with varying models of development that enjoyed similar positions in provincial development plans. The capital and deputy-provincial cities did not have a substantial advantage on a policy-making level and thus did not acquire much larger quotas.

Population density negatively affected bond issuance. This might be because the local state had invested heavily in infrastructure projects for more than three decades before 2015, and the densely populated cities were already equipped with infrastructure that did not yet need renewal. Bonds were used mainly to build new infrastructure in cities with lower population densities.

## 7. Discussion and conclusion: towards state de-financialisation

Using LGBs as the empirical focus, this article examines the transition from state-led financialisation to state de-financialisation in China. We deem that LGBs mark the turn to state de-financialisation in the following aspects. First, LGB issuance does not require land-use rights as collateral and thus deleverages the land. This lowers financial risk caused by the fact that the use right of a piece of land was repetitively collateralised. Second, the central state encourages small investors to buy LGBs directly from bank counters, which may lower the overall scale of securitisation. The shadow banking system with securitised products involving LGBs is less risky than that with products involving the financial instruments of the indebted local government financing platforms. Third, the interest rates of LGBs are lower than those of *Chengtou* bonds, meaning that the state reduces the priority of the interests of investors.

Finally, and more importantly, the budgetary process of LGBs restricts the local state's financial logic of maximising value extraction. There was no upper limit on how much the local state could borrow through local government financing platforms. Local officials did not care much about the debt but only about how to keep borrowing to undertake more projects. The state-owned commercial banks were always willing to lend, and if the officials performed well in implementing central policies and driving growth and got promoted, it would not be their concern to repay. The vertical and horizontal supervision in the budgetary process makes sure that bond issuance matches fiscal income.

The central state designed and imposed the budgetary process on the local state. The geographical analysis shows that local indebtedness actually affects bond issuance, and the central state's policy objective of managing financial risk is fulfilled locally. The local state's financial logic was politically motivated because more value extracted means better economic development of the city and thus a better chance of getting promoted. However, the local state's financial logic is subject to the political logic of the central state and can be reduced and made to concede to the management of financial risk. Thus, state de-financialisation results from the interactions between the central and local states. The central state coerces the local state to align with its policy objective of managing financial risk. This suggests an expanded fiscal perspective of (de-)financialisation where fiscal resources are used by the central state to de-financialise the local state by restricting its financial logic.

This finding that financial logic is subject to political logic across the multi-scalar state and may be restricted when necessary contrasts with the Anglo-Saxon context (Schwan et al., 2021; August et al., 2022; Dagdeviren and Karwowski, 2022), in which there is often a ‘reversal of ends and means’ when the state pursues policy goals by financial instruments (Lake, 2016, 54). Due to pressure from private finance, the state has to prioritise financial performance over the intended objectives. Such reversal ‘appears irreversible’ (Lake, 2016, 59). Our case shows that, with the pressure from the central state rather than private finance, the financial logic of the local state is reduced, highlighting the state’s dominance in the financialisation of the city and the significance of a multi-scalar perspective of the state.

This article emphasises a geographical approach to (de-)financialisation studies which examine the city-level distribution of LGB issuance to verify whether the central policy of budgetary control is actually implemented locally and whether the local state is de facto de-financialised to a certain degree. Compared with verification by interviews based on one or several cities, the distribution in this article is less affected by local specificities through showing the same finding in different regional contexts, and moreover, it generates meso-level findings, which can hardly be found by case studies. For example, the central state modifies its strategy for calculating quotas for cities in different economic regions to fit the regional context better. The inter-jurisdictional competition is insignificant and the administrative levels affect the bond issuance of a city. This geographical approach is a better way to generalise the arguments to the national scale when there is salient regional disparity.

As mentioned, the local state still relies on local government financing platforms with their financial instruments represented by *Chengtou* bonds after 2015 (Li et al., 2022). The trading volumes of these instruments far exceed the earlier period and keep increasing, not much lower than LGBs. We deem that such financial expansion also reflects the state de-financialisation defined in this article, as the local state’s financial logic of value extraction by these instruments is restricted compared with the earlier period. The local state has been prohibited from issuing payment guarantees on behalf of the platforms since 2014, which means that the platforms have to borrow based on their own capacity (Feng et al., 2022). Without such guarantees, investors are increasingly cautious in investing in these instruments. More and more platforms across the country have been having more difficulties in selling *Chengtou* bonds, and many have been shut down or restructured to form stronger group companies to pay their debt and keep financing infrastructure investment (Feng et al., 2023). In this situation, though with increasing trading volumes, the local state cannot use the platforms in the old way of relentless borrowing by repetitively issuing payment guarantees. Therefore, LGBs mark a turn to state de-financialisation which is a broader process not only through the bonds. More regulations on the platforms go hand in hand with the promotion of LGBs to restrict the financial logic of the local state.

However, we do not intend to split state-led financialisation in China into two distinct stages, in which there was pure financialisation of the local state before 2015 while since then there has been state de-financialisation. The central state promotes new financial engineering after 2015 that receives less intervention from the central state than LGBs, such as real-estate investment trusts based on infrastructure. This instrument turns established infrastructure with stable revenue streams into financial assets traded in stock exchanges. The central state promotes it as an alternative financing source for infrastructure investment. By May 2023, it had attracted investment worth more than 90 billion Yuan,

contributing to new infrastructure projects worth more than 450 billion Yuan.<sup>14</sup> The local state's financial logic is restricted in LGBs and local government financing platforms. Nonetheless, new financial engineering means new opportunities for the local state to perform financial logic. The overall trend may be state de-financialisation after 2015, as LGBs and the platforms support the lion's share of infrastructure investment. The infrastructure-based real-estate investment trust and other new instruments like the government-guided investment fund (Pan et al., 2021), however, may provide new space for state-led financialisation. Moreover, LGBs do not eliminate state-led financialisation in China, as the bonds still reflect the importance of financial instruments for infrastructure investment and enable securitisation through being invested by wealth management products.

The local state's financial logic is affected by the political logic across the multi-scalar state rather than private finance because the bonds are mostly invested by state-owned commercial banks. According to the Ministry of Finance, commercial banks held more than 82% of LGBs issued by the end of 2022, most of which were state-owned commercial banks.<sup>15</sup> These banks always provide funds to the government to achieve policy objectives (Firth et al., 2008). They can do that because they are the most accepted financial institutions by the public and have a vast amount of deposits and investments from small investors who deem these banks safe and responsible. They invest in LGBs also because they think the bonds are a financially good choice. The bonds are called silver-edged bonds next to treasury bonds (gilt-edged bonds) because they are of low risk and thus optimise the banks' asset allocation when other investment options are usually short-term and risky. More importantly, according to the news, they may get more resources from the government by underwriting or purchasing LGBs, such as providing financial services for more government projects.<sup>16</sup> Examining these banks is also a useful research agenda in the future.

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## Conflict of interest statement

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14 The news is at [http://k.sina.com.cn/article\\_2274567792\\_87932670027014c4b.html](http://k.sina.com.cn/article_2274567792_87932670027014c4b.html) (accessed June 30, 2023).

15 The report is at [http://kjhx.mof.gov.cn/yjbg/202302/t20230209\\_3865794.htm](http://kjhx.mof.gov.cn/yjbg/202302/t20230209_3865794.htm) (accessed June 30, 2023).

16 The news is at [https://finance.sina.com.cn/money/bank/bank\\_hydt/20150420/073121995246.shtml](https://finance.sina.com.cn/money/bank/bank_hydt/20150420/073121995246.shtml) (accessed June 30, 2023).

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