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Promoting the private rented sector in metropolitan China: key challenges and solutions

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ABSTRACT

The private rented sector (PRS) plays an increasingly important role in accommodating young people and migrants in China's metropolitan cities. However, the PRS in China is still underdeveloped, as evidenced by, e.g. a low degree of professionalisation, lack of basic rental laws and regulations, and poor housing experiences of tenants. The purpose of the current article is to identify the main challenges towards a well-functioning PRS, as perceived by Chinese local governments, landlords, and tenants, and to propose possible solutions to cope with these challenges. After reviewing both academic and grey literature and exploring the results of our previous research, we found that these challenges result from three main root causes, i.e. power imbalance between landlords and tenants, inadequate institutional arrangements, and path dependence on the past productivism model. Based on the analysis, a number of recommendations were proposed, including formalising the PRS, introducing regulations, setting minimum housing standards, and increasing public school availability to enhance equal citizenship rights between renters and homeowners.

KEYWORDS: Private rented sector; challenges; solutions; rent regulation; housing inequality

Introduction

The private rented sector (PRS) in many nations has recently witnessed rapid growth due to a variety of reasons, such as sky-rocketing housing prices which prevent people from buying a house, increasing workforce mobility, a shortage of social rental housing, and a lack of alternative investment possibilities (Chan & Thompson, 2019; Hulse et al., 2019; Li et al., 2021). For example, in England, the proportion of the PRS among all housing tenures increased from 10% to almost 20% between 2000 and

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2020 (DLHC, 2021). In the US, the number of renters increased two times faster than the number of homeowners during the past decade, and renters make up 60% or more of the population in more than 20 American cities (Lupa, 2019). There is a trend that renting is gradually overtaking homeownership in the country's largest cities.

This phenomenon is even more remarkable in China's metropolitan cities[1]. For example, the share of the PRS in Beijing and Shanghai increased from 6% in 2000 to around 30% in 2020 according to the fifth and seventh censuses. The share even reached 53% and 77% in Guangzhou and Shenzhen respectively in 2021 (Sina News, 2022). The demand for private rental housing is significantly higher in metropolitan cities in China than in smaller cities. This is due to two main factors: firstly, housing prices in metropolitan cities have risen to very high levels, making it difficult for many to afford to buy a home. For example, the average housing prices in Beijing increased by 13 times between 2003 and 2018, far outpacing the growth of average wages (see Figure 1). Secondly, metropolitan cities are more attractive to young people and migrants, who mainly rely on private renting as they seek affordable and flexible housing options (Jin et al., 2022, 2023).

However, despite significant growth and its importance in the housing system, the PRS continues to face significant problems, some of which may have worsened over time. Many tenants have to live in substandard housing and are confronted with fast-rising rents and weak tenure security (Pun et al., 2018). According to an online survey into young tenants in 2015, less than 20% of the respondents were satisfied with their rentals (China News, 2015). Furthermore, tenants are excluded from several social benefits, such as access to quality public schools and community healthcare (Huang et al.,

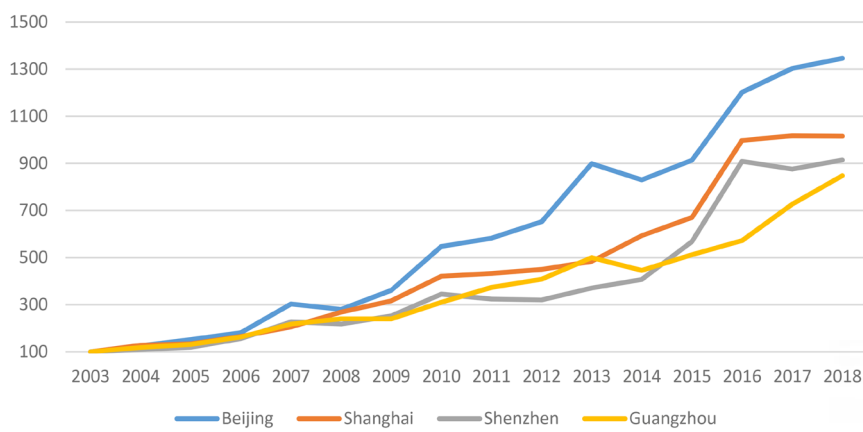

Figure 1. Housing price index in four Chinese first-tier cities from 2003–2018 (2003 = 100). *Source:* Data before 2010 are collected from municipal reports or online news. Data of and after 2010 come from an online real estate agency Anjuke, available at www.anjuke.com/fangjia

2017; Wu & Wang, 2014). On the supply side, the professionalisation of the PRS remains at a low level, as evidenced by the small number of company-managed rental units. In China, rentals managed by companies are termed Long-term Rented Apartments (LTRAs), featuring tenancy periods longer than one year, setting them apart from the prevalent short-term rentals offered by individual private landlords in the Chinese rental housing market (Chen et al., 2022). Depending on the ownership of the rental housing, there are two business models for LTRA companies. See Section 'Subsectors of the PRS' for detailed information about LTRA companies. Table 1 shows the proportion of housing units managed by LTRA companies in three first-tier cities. It can be seen that less than three percent of the private rentals are managed by specialised rental companies. Furthermore, triggered by the COVID-19 pandemic, the past two years have witnessed a notable increase in bankruptcies among rental companies, posing potential financial risks to the economy and contributing to significant social unrest (Chen et al., 2022). On the government side, although the central government attaches great attention to the development of the PRS, many local governments have inadequate motivation to provide land for the construction of rental housing because they heavily rely on land grants for fiscal revenue (Sohu News, 2021). Local governments also lack basic information on the rental market for regulation because less than 1% of rental contracts are filed with the government in most cities (Liu, 2017; Yi et al., 2021).

The description above suggests that the PRS in China is still in its nascent stage, with significant room for improvement. To achieve a developed PRS, the first question is what precisely defines a well-functioning PRS. To date, only a few researchers have come up with explicit criteria for a 'well-functioning PRS'. Based on analysis of literature and Chinese housing policies, Li (2023a) maintains that a well-functioning PRS should embody at least three dimensions. On the demand side, the PRS should be an attractive tenure for citizens. Tenants living in the PRS should have high levels of residential satisfaction in general and have the same citizenship rights as homeowners. Furthermore, on the supply side, landlords should remain interested to invest in the PRS. More importantly, landlords should provide decent housing and standard services for their tenants. On the governance side, there should be a comprehensive Tenancy Act to clarify the rights and obligations of different parties, a landlord registration scheme to monitor

Table 1. Market share of LTRA in Beijing, Shanghai, and Shenzhen in 2020.

	No. of total households	% of private renting households	No. of private renting households	No. of LTRA units	Share of LTRA in the PRS[a]
Beijing	8,230,792	30%	2,432,199	21,000	0.86%
Shanghai	9,644,628	32%	3,077,601	71,000	2.31%
Shenzhen	6,424,556	77%	4,946,908	133,000	2.69%

[a]Calculated through dividing No. of LTRA units by No. of private renting households.
Source: Authors' own calculations based on the seventh population census in 2020, JLL (2021), and Li et al. (2021).

the PRS and regulate illegal behaviour, and a sound housing tribunal or mediation institution to adjudicate disputes between tenants and landlords.

Now that we have outlined the attributes of a well-functioning PRS, the question arises: how can we attain a developed PRS? In other words, what factors have impeded the development of the PRS in metropolitan China? To date, a systematic analysis of the challenges and an overview of potential solutions are lacking. This paper introduces an innovative approach by employing a tenant-landlord-government stakeholder framework to examine challenges within the PRS. Rather than examining the PRS as a whole, this framework delves into the unique perceptions of key stakeholders—tenants, landlords, and governments—whose divergent self-interests influence their understanding of PRS challenges. By adopting the tenant-landlord-government stakeholder perspective, this study unveils conflicts of interest among these key players, providing a nuanced understanding of PRS problems and their underlying root causes. Against this background, this paper addresses the following two questions.

1. What are the key challenges faced in the development of a well-functioning PRS in metropolitan China as perceived by the local governments, landlords, and tenants?
2. What possible solutions can be proposed to cope with the identified challenges?

The article has been organised in the following way. We first give a brief overview of the development of the PRS and changing policies and housing systems in metropolitan China. Next, the data sources and methods employed in the paper, i.e. literature review and self-collected data, will be introduced. In the results part of the paper, we present the identified challenges and discussed the reasons for their emergence, followed by a proposition of possible solutions to cope with current challenges. The paper ends with the main conclusions and reflection.

The development of the PRS

The housing system in China has undergone significant changes in the past few decades. Based on Doling's (1999) analytical framework of housing provision, Zhu and Sun (2022) conclude that China's housing system has gone through three phases, namely Communism (1949–1978), Productivism (1978–2016), and Developmentalism (2016-present).

Communism period

At the time of the establishment of the People's Republic of China in 1949, the issue of housing had reached a disastrous state due to the country's prolonged engagement in wars (Zhang, 1997). To alleviate severe

housing inequality and class exploitation, the government launched a series of socialist transformations in the 1950s. This involved converting privately-owned urban housing into public ownership, and assigning the responsibility for housing provision, allocation, maintenance, and management to local municipalities or work units (danwei in Chinese) (Zhang, 1997). This form of housing was referred to as work unit housing or welfare housing because it was seen as a form of state welfare rather than a commodity. Workers paid a minimal rent to their work units for housing, with allocation based on their rank within the unit. During this period, the policy objective was to boost industrialisation and productivity by limiting housing consumption, which was viewed as a type of labour reproduction (Wang & Murie, 1996). As a result, 72% of urban households lived in work unit housing while only three percent lived in the PRS in 1978 (see Figure 2).

Productivism period

However, the socialist housing system failed to achieve its intended goal of egalitarianism. In contrast, it faced extensive criticism due to various problems including shortages, inadequate facilities, insufficient investment, unjust distribution, and poor management (Li, 2023a; Wang & Murie, 1996). To overcome the crisis, the central government decided to implement housing reform nationwide in 1988 to privatise welfare housing. Since

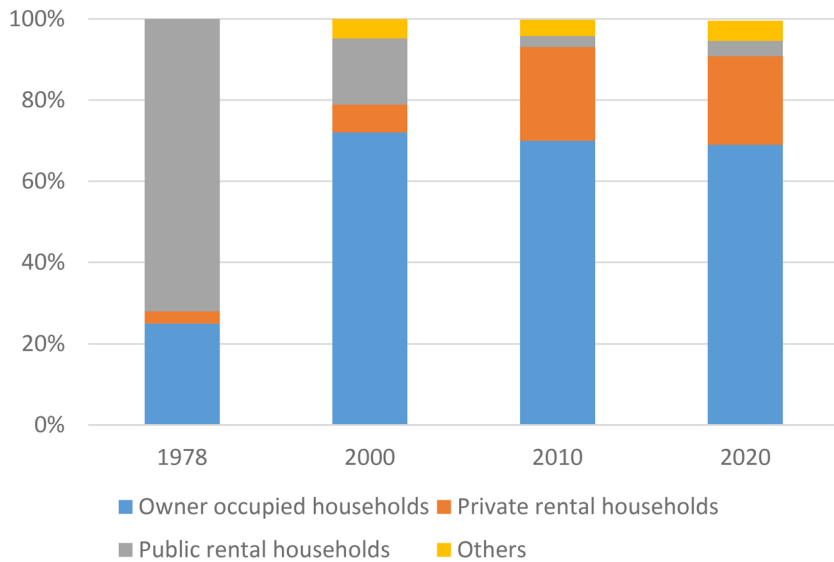

Figure 2. Tenure distribution in urban China, 1978–2020. *Source:* Data in 1978 come from Deng et al. (2017). Data in 2000, 2010, and 2020 are calculated by the author based on the fifth, sixth, and seventh national population census respectively.

then, the role of housing construction and provision has gradually been taken over by the market while housing privatisation and commercialisation have been promoted (Yan et al., 2022a). During this period, the government promoted homeownership as a crucial tool for economic development, leading to the marginalisation of rental housing. This phenomenon is not unique to China and is also common in other East Asian countries (Doling & Ronald, 2014). However, the productivism model has resulted in issues such as overheated housing markets, housing speculation, declining affordability, and extreme wealth inequality among the people. Housing has been increasingly seen as an investment rather than a place to live, posing significant concerns for economic and social development. As housing prices in metropolitan cities rise to an unprecedented level, more and more people, especially the youth and migrants, cannot afford to buy a home and have to turn to the PRS.

Developmental period

In 2015, the Ministry of Housing and Urban-Rural Development (MOHURD) for the first time proposed the idea of 'accelerating the development of the rental housing market'. In the document titled 'Guidance on Accelerating the Cultivation and Development of the Housing Rental Market' it was stated:

> The proportion of urban households solving housing problems through renting has been increasing year by year, especially for migrant workers. However, the development of the housing rental market cannot fully meet the needs of economic and social development. There are problems such as unbalanced total supply, unreasonable provision structure, lack of rules and regulations, especially the overly homogeneous suppliers. (MOHURD, 2015)

In 2016, the central government first proposed that 'housing is for living, not for speculation', marking the developmentalism stage of China's housing policy. According to Zou (2022b), the driving forces behind the policy shift can be categorised into three levels. At the political level, the productivism model conflicted with the two national strategies, which are 'harmonious society' proclaimed in 2007 and 'high quality development' proposed in 2015. At the economic level, the government faced mounting pressure to rein in housing speculation, which was causing an influx of capital into the housing sector and damaging the overall health of the economy (Zou, 2022a). In addition, widespread housing speculation drove local governments to excessively focus on generating revenue from land sale. Since urban land is controlled by city governments, they can implement manipulative measures to increase land prices, resulting in even higher housing prices (Zou, 2022b). At the societal level, the combination of exorbitant housing prices and unregulated PRS resulted in increasing

discontent among the public, which posed potential financial and social risks.

Since then, the central government has introduced a series of initiatives including policies and pilot projects to develop the PRS. These initiatives include providing tax benefits to professional rental companies, encouraging people to rent (instead of buying), allowing Collective Construction Land[2] to be used for building rental housing, combating illegal practices in the rental market, and promoting Real Estate Investment Trusts (REITs) and asset securitisation to help rental companies to finance, etc[3]. Among the initiatives or policies, encouraging local governments to provide land for the construction of rental housing deserves special attention because it is the first time that purpose-built formal private rented dwellings are introduced. Since the housing reform in the 1990s, residential land plots in urban China have been basically used to build commodity housing for homeowners. Therefore, a considerable portion of private rental housing is actually commercial housing let by homeowners. Since the State Council in June 2016 encouraged local governments to provide land for building rental housing, more and more cities have started to explore the 'build-to-rent' model.

In 2017, Shanghai became the first city in China to provide 'for-rental-only' land plots[4] in 2017 (Jiemian, 2021). By the end of 2020, Shanghai had provided 152 land plots for building rental housing, with a planned floor area of over 10 million square metres, allowing for the construction of at least 220,000 new rental housing units (Xinhua News, 2021b). In February 2021, an 'internal document' referred to as 'double centralised' (liangjizhong in Chinese) policy[5] from the central government required 22 major cities to disclose the area of land for rental housing in their annual plans, generally accounting for no less than 10% of the total land supply (NIFD, 2021). At the end of 2022, the State Council (2022) wrote 'progressively make tenants and homeowners have equal rights in terms of access to public services' into its Strategic Plan for 2022–2035, signifying a significant policy advancement.

There is a consensus in academia that housing policies in the developmental period no longer prioritise economic goals (Shi et al., 2016; Zou, 2022b). Rather, policy objectives are now more focused on people's needs, with an emphasis on market-based instruments that enable greater state intervention in market correction, which is referred to as 'state entrepreneurialism' by Wu et al. (2022).

The current section has given a brief overview of the development of the PRS in China, highlighting its alignment with shifts in ideology and political/economic objectives. Furthermore, we have outlined key policies and initiatives implemented since 2015 to develop the PRS. This information plays a crucial role in comprehending the challenges faced by the PRS in China because housing issues tend to be path dependent. This means that decisions made at a certain point in history can lead to the closure of alternative paths that were previously feasible, or at the very

least, make them more difficult to achieve later on (Bengtsson & Ruonavaara, 2010). Next, we will provide a comprehensive description of the various sub-sectors within the PRS in metropolitan China.

Sub-sectors of the PRS

The PRS in China is - as in many other countries - highly heterogeneous and made up of different sub-sectors. Based on the thesis of the Structure of Housing Provision developed by Ball (1986a, 1986b), Li et al., (2021) identified three important sub-sectors of the PRS in urban China, i.e. urban village housing, commercial rented housing, and Long-term Rented Apartments (LTRAs).

An 'urban village' in the Chinese context is a type of village that has been geographically surrounded by urban development but maintains an institutionally recognised rural status because of the collective ownership of land (Guo et al., 2018). Urban villages emerge amidst the rapid urbanisation and expansion process, wherein the once-rural villages and agricultural lands were converted into urban settlements, often without adequate urban planning and regulation. Urban village housing is built by villagers themselves on collective land in urban villages. However, the villagers are not legally entitled to capitalise on their properties through land or housing sales, so they redevelop their housing at high densities to maximise their profits by leasing out the units (Liu et al., 2010). As a result, most urban villages are densely populated, accompanied by inadequate lighting and poor infrastructure. Landlords of urban villages housing typically possess one or several buildings, each consisting of dozens of units which are often overcrowded and lacking basic facilities (Wu, 2016). Urban village landlords may either manage the housing themselves, delegate the business to their offspring, or hire a tenant within the building to manage the housing while receiving a rent discount (Li, 2023b). In addition, our previous research shows that urban village tenants have significantly lower levels of residential satisfaction and life satisfaction than tenants in other sub-sectors (Li et al., 2021, 2023).

In comparison, commercial housing (or commodity housing, shangpin fang in Chinese) typically refers to high-rise, multi-family buildings located in gated communities (Xiaoqu in Chinese) that provide a host of social, commercial, and recreational services (Hendrikx & Wissink, 2017; Wu, 2005; 2012). The primary distinction between urban village housing and commercial housing stems from the ownership of the land. According to the 1998 Land Administration Law, urban land is owned by the state, whereas rural and suburban land is owned by collectives (Li et al., 2021). Unlike urban village housing, which is constructed by the villagers themselves, commercial housing is developed by real estate companies on urban land obtained from the local government through competitive tenders. The term 'commodity housing' is used to differentiate it from welfare housing

previously provided by employers/work units. It is worth noting that commercial housing is constructed for sale purposes only and can be freely traded on the market. In metropolitan cities such as Shenzhen, the prices of commercial housing have skyrocketed to exorbitant levels over the past two decades. As a result, the rent for commercial housing is considerably higher than that of urban village housing. Commercial housing landlords often entrust the management of their properties to letting agents or property management companies as they lack the time to manage them themselves (Li, 2023b).

LTRAs are typically fully furnished and equipped with basic amenities, managed by specialised rental housing companies. Stimulated by incentive policies as well as the influx of domestic and foreign capital, the number of LTRA companies has experienced rapid growth. Between 2015 and 2019, about 750 enterprises were established as LTRA-type companies or their subsidiaries, aiming at providing high-quality rental housing for young professionals (Chen et al., 2022; Li et al., 2021). In 2019, about 500 thousand in-operation rentals we managed by LTRA companies (CRIC, 2020). LTRAs also distinguish themselves from privately rented commercial housing and condominiums managed by individual landlords or letting agencies in various aspects, ranging from property rights, building design, decoration, and facilities to services and rental rates (Li et al., 2021). LTRA companies have two business models, i.e. 'asset-heavy' or 'asset-light'. The asset-heavy model is to rent out properties that are built or owned by the companies while the asset-light model is to obtain the leasing rights of properties from individual homeowners, refurbish them, and then sublet the properties on behalf of homeowners (Chen et al., 2022). While the asset-light model has been the dominant approach for many housing rental companies, an increasing number of companies are now considering the asset-heavy model (Li, 2023b). This is because owning and controlling physical properties provides greater control over rental rates and maintenance costs, and can also help to establish a strong brand reputation and increase tenant loyalty.

Data and method

This paper seeks to identify the challenges towards a well-functioning PRS in metropolitan China and proposes possible solutions, based on a literature review and self-collected micro-level data. As with many other countries, official data on the PRS in China is quite limited (Pareja-Eastaway & Sánchez-Martínez, 2022), mainly because less than 1% of rental contracts are filed with the government in most cities (Liu, 2017). As a result, many local governments have no information on the number of dwellings being rented out, the rent rates, and the conditions of the rentals. For this reason, the current paper relies on some existing academic literature, supplemented with extensive grey literature including online news, industrial

reports, government documents and white papers. To enhance the reliability of grey literature, we prioritise sourcing news from reputable official media channels, such as the Xinhua News and the Beijing News, which are China's official news agencies. Additionally, for industry reports and white papers, our primary reference is Jones Lang LaSalle (JLL), an authoritative real estate consulting agency. In the absence of authoritative sources, civic journalism becomes a valuable supplement, featuring interviews with stakeholders like tenants, landlords, and homeowners, thereby offering diverse perspectives. Additionally, news reports have advantages over academic literature due to their timeliness and provision of real-time data on current events, contributing to a comprehensive understanding of the challenges within the PRS.

However, the literature review can only give a general picture of the PRS. To obtain a deeper understanding of the current status and problems of the PRS, micro-level data is needed. Therefore, we also used self-collected data from both tenants and landlords. In August 2020, we conducted a questionnaire survey in Shenzhen among over 600 tenants living in different types of private rental dwellings (Li et al., 2021; 2022). The questionnaire asked about the respondents' demographic characteristics, their residential environment, their residential satisfaction levels, and their motivations for choosing private renting, etc. We have adopted a non-probability sampling method due to the lack of a complete list of private rental units along with contact information. However, a series of measures have been taken to reduce bias such as handing out questionnaires in different locations and on both weekdays and weekends. In the end, a total of 619 valid questionnaires were collected with a valid rate of 93%, including 285 (46%), 206 (33%), and 128 (21%) respondents living in the urban village housing, commercial housing, and LTRAs respectively. Based on the data, we evaluated the residential satisfaction levels of tenants in each sub-sector and examined the determinants of residential satisfaction using regression analysis. We also examined the determinants of people's tenure choice towards private renting using path analysis. More detailed information on the fieldwork is provided in Li et al. (2022) and Li et al. (2021).

To better understand how different types of landlords manage their properties and how their management practices influence tenants' renting experience, we conducted in-depth interviews with 13 landlords and 17 tenants in Shenzhen, between December 2021 and March 2022. Snowball sampling was adopted to recruit respondents, and the interviews were carried out online through WeChat. Different groups of interviewees were asked with customised questions. For example, for landlords, we focused on their daily management practices, business strategies, and how they interact with their tenants, letting agents, and LTRA companies. For tenants, we asked them to share their experiences in terms of affordability, residential conditions, and tenure security. We also asked how they were getting along with their landlords. Each interview lasted approximately one hour and was audio-recorded after having obtained the interviewee's

consent. The recordings were transcribed into documents manually and analysed through ATLAS.ti 9. The research was approved by the Human Research Ethics Committee (HREC) of the Delft University of Technology. Readers may refer to Li (2023b) for a detailed description of the data collection process and results.

Challenges towards a well-functioning PRS

This section aims to identify the challenges faced by landlords, tenants, and government entities, drawing on data obtained from document reviews, surveys, and interviews, as previously described. Moreover, we will conduct an analysis of the root causes of each challenge, as comprehending these factors can inform policymaking and help to overcome the identified challenges. The research methodology follows a systematic and iterative inquiry process aimed at uncovering the root causes of challenges in the PRS. Employing a continuous 'Why does this happen?' questioning approach, insights are derived from a diverse range of sources, including academic and grey literature, interviews, and quantitative data. The comprehensive analysis and synthesis of these multifaceted inputs contribute to a robust exploration of underlying factors, establishing a scientific foundation for a nuanced understanding of the root causes of the challenges.

Challenges as perceived by the local governments

The informality of the PRS

The first challenge recognised by local governments is the informality of the PRS. Different from most past literature that regards urban village housing as informal while commercial housing as formal (Wang et al., 2009; Wu et al., 2013; Zhang, 2021), informality here means that tenancies are 'hidden from the purview of the State', thus making 'regulation and recourse difficult to enforce' (Parkinson et al., 2022). Informality is ubiquitous in the urban village sub-sector and commercial housing sub-sector, which are managed by individual landlords. Although individual landlords are encouraged to upload information about their rentals, few are willing to do so because they worry about being taxed if their business is known to the tax authorities (Sohu News, 2019). It is noteworthy that the Chinese Individual Income Tax Law prescribes the taxation of rental income as a personal responsibility. However, in practice, a substantial number of individual landlords refrain from tax compliance, with rent transactions frequently transpiring through unofficial, private channels (Li, 2023b). In this regard, LTRA companies exhibit a greater degree of formality, given their status as registered corporate entities and their transparency with tax authorities. As articulated by two executives representing distinct LTRA firms:

> Individual landlords don't pay taxes at all. Transactions among property owners, sub-landlords, and tenants are conducted through bank transfers. They don't even have to pay taxes, and they can't issue receipts. So, there are still many regulatory gaps. But it is gradually coming under regulation now. Previously, it was a completely unregulated industry. (Executive of LTRA company A)

Another long-term apartment manager, when asked whether they have to pay taxes, responded,

> Definitely, we have to pay taxes. Every transaction is for better financing, and the better the financing, the more taxes you'll certainly have to pay. Some tenants also require receipts, so this is unavoidable. (Executive of LTRA company B)

The informality of the PRS could complicate the management of the PRS in at least two aspects. First, due to an extremely low registration rate, many local governments do not have critical information about the PRS, such as the number of existing rentals, rent levels, and housing conditions, which makes it difficult to improve market transparency and formulate policies accordingly. Second, without knowing who is leasing out their properties, it is impossible to implement rent regulations and enhance tenancy security.

Reliance on land finance

The second challenge is the so-called 'land finance' of local governments. 'Land finance' refers to the situation that local governments depend largely on land grant premiums and land tax revenues as these two are their two primary sources of fiscal revenue for the past two decades. Thus, although the supply of purpose-built rentals is acknowledged to be an effective avenue to promote the PRS (NIFD, 2021), many local governments are not motivated to provide rental land as they prefer to lease land to build commercial housing for sale.

Significantly, local governments primarily generate revenue through the construction of commercial housing. Consequently, commercial housing dominates as the predominant sub-sector in numerous Chinese cities, with purpose-built rental properties such as LTRAs being relatively scarce. CRIC (2022) shows that only 5% of the total floor area of granted land is for the construction of rental housing in 22 major cities in 2021. Qun et al. (2015) showed that the Chinese-style fiscal decentralisation system and competition between local governments to promote economic growth are two major causes of land finance. The Tax Sharing System reform in 1994 made local governments fiscally squeezed by the central government (Cai et al., 2021; Wong, 2009). To afford the growing public expenditure on infrastructure, education, and medical care, local governments have chosen land finance as a new source of extra-budgetary revenue (Qun et al., 2015). In 2021, land grant premiums accounted for up to 41% of fiscal

revenue for local governments in China (Shen, 2022). Being overly dependent on land finance, many local governments are reluctant or not able to provide land plots for the construction of rental housing. It is because land plots in cities are limited. The increase in land for rental housing will inevitably lead to a decrease in land for owner-occupied housing, which is an important source of revenue[6]. Besides, the increase in rental supply would probably reduce people's demand for owner-occupied housing, thus leading to decreasing housing prices and subsequent land prices fall.

Opposition from homeowners

The third challenge for the local governments is that promoting the PRS might undermine the interests of homeowners and thus receive massive opposition. In 2017, Guangzhou became the first city to propose to 'give eligible tenants' children the right to enjoy public services such as attending a nearby school, to ensure the equal citizenship right between renters and homebuyers'. Three years later, the Central Economic Work Conference in 2020 made 'gradually realising equal rights between homeowners and tenants' an important goal of developing the PRS (Xinhua News, 2020a). However, there has been no substantial progress so far on this issue (Chen, 2021).

As mentioned above, homeowners of commercial housing are privileged compared to renters in accessing certain public services such as quality public schools. It is well acknowledged that children's access to quality education is capitalised in housing prices in China (Feng & Lu, 2013). Homebuyers have paid far more than the value of the dwelling itself. This premium has become the local government's revenue through land finance, which is further used for city construction. Therefore, it is understandable that homeowners believe they should have priority access to the scarce public schools over tenants (Tencent News, 2021). Conceivably, the implementation of 'equal rights between homeowners and tenants will have two consequences. First, due to the enrolment of tenants' children, the number of school seats offered to homeowners' children will inevitably decrease if the total number of school seats remains constant. Second, housing prices would likely fall since part of the homeownership demand is shifted to rental housing, which would inevitably provoke an outcry from homebuyers. In recent years, protests against falling housing prices have become commonplace in different parts of China (Financial Times, 2018; Sina News, 2021).

Challenges as perceived by landlords

Landlords can be categorised into individual landlords and LTRA companies, depending on who actually manages the housing. This section exclusively focuses on investigating the challenges confronting LTRA companies while deliberately omitting an examination of the challenges experienced by

individual landlords. This decision is motivated by several compelling rationales. Firstly, LTRA companies typically engage in large-scale operations, overseeing a substantial number of properties and tenants, often requiring substantial capital investment. Consequently, the challenges they encounter are deeply rooted in the foundational aspects of their businesses, encompassing property management, tenant relations, and financial management. An analysis of these challenges can illuminate systemic issues inherent to the rental sector. In contrast, many concerns of individual landlords, such as property value appreciation and rental pricing (Li, 2023b), are markedly susceptible to market dynamics. These concerns are predominantly shaped by external factors, over which both individual landlords and government authorities possess limited influence. Lastly, the challenges faced by LTRA companies may intersect with government policies and regulations, exerting a significant impact on their operations. An examination of these challenges can provide policymakers with insights into fostering a regulatory environment conducive to the rental sector's functioning. In contrast, the challenges faced by individual landlords are often not a primary concern for local governments, as these challenges may be incongruent with the government's broader objective of promoting housing affordability.

In 2021, JLL invited more than 30 different types of investment institutions (including developers, real estate funds, and insurance funds) to participate in a questionnaire on the current situation of the LTRA market in China (JLL, 2021). Figure 3 summarises the major challenges restricting the development of the LTRA market from the perspective of these investors. Our previous interviews with LTRA managers (Li, 2023b) further corroborate these challenges.

Over-valued properties

It can be seen that the biggest challenge is 'over-valued properties', which means that the housing prices are perceived to be too high. Over-valued properties represent a common deterrent that may dissuade institutional landlords from entering a particular market, particularly when there is a suspicion of a real estate bubble, prompting a stance of caution, as illustrated by the case in London (Beswick et al., 2016). For investors, to transfer existing housing stock into LTRAs has become the mainstream avenue to enter the rental market. However, the prices of existing commercial housing, especially the ones in the core areas of big cities in China are too high. Taking the cost of housing renovation into consideration, the return on investment is often lower than the expectations of investors. As a result, investors would lose the motivation to invest in the LTRA companies. As put by one of the LTRA executive,

> The return on investment for our projects is limited. In particular, the market has been sluggish in the last two years due to the COVID-19 pandemic, and demand for rental housing has been declining sharply, so many of our projects are not yielding the expected return on investment…The current

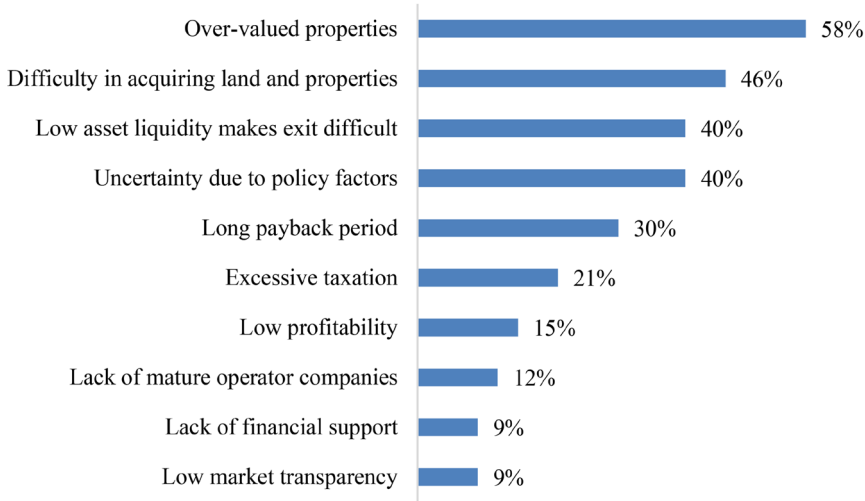

Figure 3. Major challenges for the development of China's LTRA market. *Sources:* JLL (2021)

> housing prices are so high that we can hardly make any profit if we sublet. (Executive of LTRA company A)

It is thus not hard to imagine that some other challenges such as 'difficulty in acquiring land and properties', 'long payback period', and 'low profitability' also become landlords' concerns, which was also demonstrated in our previous research (Li, 2023b). According to HouseChina (2020), the price-to-rent ratio (housing price/annual rent) in 50 major Chinese cities reached 51 in 2020. Taking into account the current house prices and rental earnings, it would take 51 years of renting to earn back the house price. This number is much lower in some western countries, for example, 31 years in Germany, 28 years in the UK, and 10 years in the US (NUMBEO, 2020). The exorbitant housing price-to-rent ratio can be attributed to multiple factors such as the expectation of substantial appreciation in housing prices (Wu et al., 2012), widespread speculation (Dreger & Zhang, 2013), and the capitalisation of education resources in housing prices (Song, 2022).

Difficulty in acquiring land and properties

Besides over-valued properties, difficulty in acquiring land and properties is another major challenge for LTRA companies, according to JLL (2021). This might be due to the fact that many local governments do not provide enough land lots for building rental housing (Li, 2023b). As mentioned previously, the 'double centralised' policy issued in February 2021 required 22 major cities to provide at least 10% of the total land supply for the construction of rental housing (NIFD, 2021). However, only 1 out of the 22 major cities accomplished

the task while 14 cities failed to achieve even 30% of the planned amount of rental land provision (MeadinAcademy, 2022). The major reason is that many local governments are not fiscally motivated to provide their scarce land for the construction of rental housing (Yan et al., 2022b).

As for the difficulty in property acquisition, fierce competition between LTRA companies is another reason in addition to high housing prices. Between 2015 and 2019, LTRA companies rushed to expand their business scale at all costs, because they believed that the capital market would only invest in the one with the largest potential to be the winner-take-all player, who will have the pricing power and gradually raise the price later to achieve a turnaround (Chen et al., 2022; Jia & Winseck, 2018). Therefore, on the one hand, LTRA companies bid against each other to obtain properties from individual homeowners, and on the other hand, they have to lower the rents to secure customers (Sina News, 2020). This expansion pattern apparently intensifies the competition among companies to acquire properties and poses a high risk to both the company and the tenants, which will be discussed in the section 'Distrust of LTRA companies'.

Another problem in acquiring properties is that a sizable portion of existing private rental housing is of poor quality in some cities (Li et al., 2021). Renovation of these rentals is quite expensive while the profit is low. Meanwhile, our interview with an LTRA executive showed that they were very hesitant about acquiring these substandard rentals because they might have potential safety hazards (Li, 2023a).

> Our company does not want to take urban village housing at the moment as many of them are unauthorised and do not meet our company's requirements in terms of safety. It would be too costly to renovate them. (Executive of LTRA company C)

Low asset liquidity makes exit difficult

Investing in purpose-built rentals is a risky decision for investors as they need to hold the rentals for a long period. Due to the strict financial regulations and underdeveloped securitisation[7] in China, there are very limited ways for investors to cash out. In 2021, most investors still believe that in-kind sale exit will be the main exit means for LTRA investment in the short term (JLL, 2021). Furthermore, as the LTRA industry in China is still in its nascent stage, there is a lack of reference cases in terms of exit means and asset pricing, which have become one of the most concerning problems for investors (JLL, 2021). Although four rental housing Real Estate Investment Trusts (REITs) were successfully listed in China in 2022, their underlying assets are limited to affordable rental housing. As of now, there has been no issuance of REITs for private rental housing.

Challenges as perceived by tenants

The well-being of tenants is of vital importance and can be even considered the criterion for a well-functioning PRS (Smith et al., 2017). By this

standard, the PRS in China is still underdeveloped as many tenants living in the PRS have a low satisfaction level (Li et al., 2021).

Preference for homeownership

The first challenge for the PRS concerns the low status of private renting compared to owning a dwelling. Private renting in China has long been a stigmatised and undesired option for several reasons. First of all, Chinese culture and traditions favour homeownership instead of renting. Owning a home is regarded as a sign of wealth, a symbol of well-being and social status, and even a prerequisite for marriage (Huang, 2004; Wrenn et al., 2019; Yao et al., 2013), while renting is considered to be a 'long-term financial loss' and 'unstable' by many Chinese (Nie, 2016). As stated by one of our interviewees,

> A man without a house is at a disadvantage, for example, if he argues with his wife, she may blame the man with this point. (male tenant, 25 years old)

Furthermore, homeownership in China is linked to different social welfare such as access to quality public schools and Community Healthcare Service (Huang et al., 2017). Only the children of homeowners with local hukou (household registration) can attend nearby public schools (Feng & Lu, 2013). These policies can be regarded as aiming to promote homeownership with the goal of increasing the fiscal revenue of the local government and boosting the economy. Therefore, renting is to some extent only the last resort for people who cannot afford to buy a home.

Poor housing experiences living in private rented housing

A second challenge for the PRS from the viewpoint of the tenants is the low housing quality of the rental dwellings. An online survey of young people living in first-tier cities shows that only 16% of young tenants were satisfied with their housing in 2015 (Sohu News, 2015). Our questionnaire survey performed in 2020 in Shenzhen showed that only 31% of the respondents were satisfied with their housing (Li et al., 2021). Tenants living in urban village housing were significantly less satisfied with their residential environment than those living in commercial rented housing and LTRAs. By analysing our qualitative interviews with tenants in Shenzhen, we also found that many tenants have poor living experiences such as frequent rent increases, substandard housing conditions, and insecure tenancy, especially for those living in the urban villages. One of our interviewees gave a vivid description of her experience of living in urban village housing:

> Every time I go home, I have to pass through a dark, dirty, and smelly road with garbage on both sides. When I get home, I have to close the window right away because the fumes from the restaurant downstairs drift into my room. At the same time, I would hear people yelling on the road and neighbours arguing and spanking their children.

Furthermore, we found that many tenants had experienced displacement, for various reasons such as the landlord deciding to renovate or sell the dwelling, or the landlord raising the rent to an overly high level (Li, 2023a). The poor housing experiences of tenants can be largely attributed to the informality of the PRS, the between landlords and tenants, the absence of basic laws and regulations, as well as discrimination from the society and institutions (Li, 2023b; Li et al., 2021, Li et al., 2022; 2023).

Distrust of LTRA companies

The third challenge is the tenants' distrust of LTRA companies because a large number of LTRA companies have gone bankrupt due to capital chain rupture since 2018 (FinanceChina, 2022; Sohu News, 2020; Xinhua News, 2020b). According to Heimao Complaint (2021), in 2020, the platform received about 55,000 complaints about LTRA companies of which 76% were related to the bankruptcy of LTRA companies.

As described above, some LTRA companies acquire properties at high prices but let them out at low prices to capture market share. However, this expansion model relies heavily on constant capital infusion. Once the rate of liquidity inflow lags behind cost growth, the company quickly runs out of cash to pay for its existing landlords and faces the risk of bankruptcy, which is referred to as financialisation of rental housing (Chen et al., 2022). To maintain cash flow, many LTRA companies induce tenants to pay a large amount of rent for six months or one year. If the tenants cannot afford such a large sum of money, some LTRA companies would introduce a 'rent loan', which means the tenant borrows a lump sum of money from a financial institution to pay the LTRA company, and then the tenant makes monthly repayments to the financial institution (Chen et al., 2022). Although more than 100 LTRA companies have gone bankrupt due to the cash chain rupture (Beijing News, 2020), COVID-19 in 2020 sparked a storm of bankruptcies around the country. In 2020, 27 LTRA companies closed down in Chengdu alone, involving about 120,000 landlords and tenants (Xinhua News, 2021a). Furthermore, in some cases, tenants do not even know that the LTRA company has used their credit to take out a loan (Shanghai Observer, 2019). These tenants had to continue paying back the loan to the bank, even though they had been evicted from their home by the original landlords. These scandals have further exacerbated tenants' distrust of LTRA company.

In this section, we have identified three challenges perceived by the three stakeholders based on the literature review and our previous research (see Table 2). Furthermore, by adopting a systematic and iterative process with a continuous 'Why does this happen?' questioning approach, we have delved deeply into the root causes of the challenges. Our analysis has shown that the challenges identified can be attributed to three main root causes: power imbalance between landlords and tenants, inadequate institutional arrangements, and path dependence on the past productivism

Table 2. Challenges of promoting the PRS and possible solutions on the local government, landlord, and tenant sides.

Stakeholder	Challenges	Root causes	Solutions	Action by
Local governments	The informality of the PRS	Inadequate institutional arrangements (landlord registration scheme)	Cooperate with LTRA companies and letting agents; Develop a tiered tax system for rental income and exempt the landlords from past unpaid taxes; Implement Affordable Rental Housing Programme	Government
	Reliance on land finance	Path dependence on the past productivism model (fiscal/tax system, conditions of promotion for officials)	The central government provides financial support to local governments to provide rental land; Levy property tax; Establish a human-centered appraisal system for officials	Central government
	Opposition from homeowners	Path dependence on the past productivism model (capitalisation of education resources in housing prices)	Increase the number of public schools; Publicise the risk of falling house prices and the acceptance of 'equal rights between homeowners and tenants'	Government
Landlords	Over-valued properties	Path dependence on the past productivism model (promoting homeownership to finance urban development)	Acquire properties in non-core districts and areas near industrial parks	LTRA companies
	Difficulty in acquiring land and properties	Same as above	Increase rental land provision to private LTRA companies and prevent destructive competitions	Government
	Low asset liquidity makes exit difficult	Inadequate institutional arrangements (financial channels)	Introduce REITs into rental housing projects	Government
Tenants	Preference for homeownership	Path dependence on the past productivism model (capitalisation of education resources in housing prices); Social norm	Promote equal citizenship rights between tenants and homeowners; Increase the supply of public resources	Government
	Poor housing experiences living in private rented housing	Imbalanced power relationship between tenants and landlords; Inadequate institutional arrangements to regulate the landlords	Set minimum living conditions and moderate rent regulation through legislation; Implement Affordable Rental Housing Programme; Establish a tenant association or official mediation department	Government
	Distrust of LTRA companies	Inadequate institutional arrangements to regulate the landlords	Strengthen the regulations on LTRA companies and issuers of rent loans	Government

model. Next, we are going to explore what solutions can be proposed to cope with these problems.

Proposition of possible solutions based on literature and own research

In this section, we seek to provide some policy recommendations to the government and landlords to deal with the aforementioned challenges of the PRS. The majority of our policy recommendations draw from our earlier research findings (Li, 2023b; Li et al., 2021, 2023; 2022) while some recommendations are formulated through a comprehensive review of both academic and grey literature sources.

On the local government side

For the government, the first step is perhaps to formalise the PRS by having the tenancies registered at the municipality. This can be explained from the perspective of class-monopoly rent theory, which posits that landlords can earn excess profits or income due to their control over scarce resources, market power, or legal privileges (Harvey, 1974; Harvey & Chatterjee, 1974). Monopoly rents are typically higher than what would be earned in a competitive market (Harvey, 1974; Harvey & Chatterjee, 1974). Therefore, formalising the PRS could mitigate power inequalities between tenants and landlords. Based on the class-monopoly rent theory, our prior research has identified that advocating for formality within the PRS can yield a number of advantages, including the mitigation of landlord alliances, augmentation of tenant bargaining power, and heightened transparency (Li, 2023b). This enables local governments to better understand the status of the PRS such as the number of rentals, distribution of location, rent levels, and physical conditions of the rentals. The formalisation of the PRS should aim primarily at rentals let out by individual landlords such as urban village housing and commercial rented housing because LTRAs have been formalised (Li, 2023b). We propose three avenues to formalise the PRS. First, local governments could cooperate with letting agents who have extensive information about the PRS as most individual landlords rely on letting agents to seek tenants (Li, 2023b). Second, we suggest local governments should develop a tiered tax system for rental income and exempt the landlords from past unpaid taxes to encourage individual landlords to have their rental contracts registered. Third, the ongoing conversion of individually owned housing into affordable rental housing can be promoted, given that affordable rental housing is managed and allocated by the local government.

The second challenge concerns the heavy reliance on land finance, which has become a significant obstacle for local governments in their efforts to develop the PRS. The root cause of land finance is the path

dependence on the past productivism model. Therefore, to reduce local governments' dependence on land finance, local governments have to adopt a more sustainable development model. In specific, to address the two causes of land finance (fiscal decentralisation system and pressure on governmental officials to boost GDP growth) identified by Qun et al. (2015), three avenues can be considered. To start with, the central government could allocate grants to local governments which provide land for the construction of rental housing. Furthermore, local governments could explore other sources of extra-budgetary revenue such as property tax and corporate tax. More importantly, the central government should cease using GDP growth as the main indicator for judging the promotion of officials. Other people-oriented indicators such as citizens' satisfaction, social equality, and newly provided rental land can be considered to measure the performance of government officials.

Finally, the third challenge concerns the opposition from homebuyers, which focuses on two main aspects, namely, tenants crowding out educational resources and potential housing price declines. The underlying cause for the emergence of this challenge lies in the practice of local governments capitalising education resources into housing prices to promote homeownership. Therefore, we call on local governments to increase the number of public schools to cover the children of tenants. Meanwhile, the government should make it clear in the legal terms and housing purchase contracts that the risk of falling housing prices is taken by the homebuyers themselves. In addition, decrees should be enacted by the central government as soon as possible to provide a legal basis for tenants to have rights to public services. Local governments could increase publicity efforts to promote the acceptance of 'equal rights between homeowners and tenants' among their citizens.

On the landlord side

To cope with the challenge of over-valued properties, LTRA companies are advised by JLL (2021) to acquire housing located in 'non-central' districts and industrial parks. Since LTRA companies target mainly young professionals whose work location is more flexible, many of them tend to value housing quality, design, and accessibility over the central location of the housing (JLL, 2021). In addition, areas near industrial parks are also a good choice to acquire properties because these areas have attracted a large number of enterprises, and subsequently, many young professionals, due to the economies of scale brought about by industrial clustering. Through precise positioning and sound operation, these LTRA projects can often achieve an ideal occupancy rate and rental income (JLL, 2021).

The main reason for the difficulty in acquiring land for LTRA companies is insufficient rental land supply by the local government. Therefore, we recommend that local governments increase the supply of rental land, especially for private LTRA companies. At present, most rental land plots

have been acquired by state-owned or municipality-owned companies (JLL, 2021). In addition, measures should be taken to prevent destructive competition between LTRA companies for properties.

With regard to low asset liquidity, REITs might be a good solution. REITs are holding companies or mutual funds that invest in income-producing real estate assets and enable private and institutional investors to hold commercial and residential real estate indirectly (Lizieri, 2009; Wijburg, 2019). The liquidity of REITs is better than that of real estate because investors do not need to hold the in-kind real estate and can trade REITs in the stock market. Rental housing is one of the highly favoured assets in the REITs market due to its large investment scale, long payback period, and stable cash flow. On the other hand, REITs can provide a high-quality exit channel for rental housing projects to quickly recoup funds and effectively enhance the liquidity of the rental housing market (JLL, 2021). Nevertheless, it should be noted that some scholars consider REITs as an important category of 'financialised landlords' that may prioritise profitability over the welfare of tenants, potentially undermining rental housing affordability, quality, and security (Aalbers et al., 2023; August, 2020).

On the tenant side

The first challenge facing tenants pertains to the prevalent inclination towards homeownership, a preference deeply entrenched in long-standing traditions and social norms, as highlighted by Williamson (2000). Nonetheless, in the course of our interviews, some tenants articulated a willingness to engage in long-term renting, contingent upon the assurance of stable tenure and equitable educational opportunities for their children, indicating that the aversion to private renting is not solely rooted in tradition but also associated with perceived limitations on their citizenship rights, a factor that holds potential for change. Hence, the enhancement of parity in citizenship rights between tenants and homeowners is imperative to render private renting a more appealing housing option; however, it is important to recognise that achieving such equity is a gradual process due to the anticipated resistance from homeowners and the limited availability of public resources, particularly in urban areas, which would necessitate an expansion of public resource provisions—a task extending beyond the scope of housing policies and intricately connected to broader issues of social welfare and citizenship rights, though further elaboration on these aspects is beyond the scope of this paper. Furthermore, a prior study grounded in the theory of planned behaviour revealed that individuals also hold positive attitudes and beliefs concerning private renting, including factors such as job flexibility and reduced financial pressure (Li et al., 2022), suggesting that governments could promote the merits of renting as a means to gradually shift people's homeownership preferences.

The second issue revolves around the quality of rental accommodations, with the prevailing legal framework in China offering limited safeguards for tenants, leading to a pronounced imbalance in the tenant-landlord relationship and, consequently, frequently resulting in inadequate tenure security and substandard living conditions for private tenants. Against this background, legislation and a certain degree of regulation should be in place. For instance, it is advisable for local governments to enact laws that explicitly outline the circumstances under which a tenant can be evicted. Moreover, we recommend the establishment of minimum housing standards and the introduction of moderate rent regulations through legislation, akin to the model observed in Germany, where rent increases are capped at a threshold, such as less than 20% or 15% within a three-year period (Deschermeier et al., 2016). Given the challenges associated with large-scale implementation, it is prudent to initiate pilot programmes for affordable rental housing to accumulate valuable experience. Furthermore, it is of paramount importance to ensure strict adherence to the legislation and the imposition of penalties for violations. To facilitate this, the consideration of setting up a tenant association or an official mediation department can be explored as a means of overseeing and enforcing the new regulations effectively.

Finally, measures should be taken to restore consumers' trust in LTRA companies. Over the past decade, the government has adopted a laissez-faire approach towards LTRA companies in order to foster the professionalisation of the PRS. However, this approach has inadvertently contributed to the problem of excessive financialisation within LTRA companies, subsequently resulting in the bankruptcy of these companies, as well as the displacement and financial losses incurred by tenants, as noted by Chen et al. (2022). To address these challenges, we recommend that the government implement more stringent regulations on LTRA companies and entities providing rent loans. This could include measures such as prohibiting LTRA companies from accessing their customers' credit information without their explicit consent and establishing a cap on advance rent payments, such as a limit of three months' rent in advance.

Table 2 summarises the possible solutions to address the challenges on the local government, landlord, and tenant sides.

Conclusion

In recent years, the Chinese government has embarked on the promotion of the PRS to accommodate young people and migrants who cannot afford to buy a home in megacities. However, this initiative faces many challenges that make implementation difficult. The current paper aims to identify the key challenges of promoting the PRS in metropolitan China and to provide policy recommendations to cope with these challenges.

Our analysis has demonstrated that the challenges facing the PRS can be attributed to three main root causes: power imbalance between landlords

and tenants, inadequate institutional arrangements, and path dependence on the past productivism model. Therefore, it is crucial to develop policies that address these issues. One of the most pressing tasks is the establishment of a landlord registration scheme. This scheme would enable the government to gather information about the PRS and effectively regulate it. Simultaneously, the government should prioritise the enactment of a Tenancy Act to establish minimum housing standards and regulate the landlords' illegal behaviour. This step is necessary to alleviate the imbalanced power relationship between landlords and tenants. Furthermore, we recommend that the government increase public spending on education and increase the number of public schools. It is essential to ensure that tenants have the same rights as homeowners. Lastly, the tax and fiscal systems should undergo reform to reduce local governments' reliance on land sales. Only through this reform will they have the incentive to develop the rental market. As has been demonstrated above, the PRS in China is not an isolated island but a system related to many other institutions such as the hukou system, social benefits system, and decentralised fiscal system. Reforming the PRS requires institutional change at the same time. Otherwise, the butterfly effects of the reform should be considered. In addition, the challenges facing the PRS are unlikely to be removed by a single policy or in a short period. Instead, it requires long-term efforts and systemic reform.

This paper presents several noteworthy limitations that merit careful consideration. Firstly, the primary data utilised in this study is predominantly derived from Shenzhen. Consequently, the research findings and policy recommendations can be theoretically applied primarily to Shenzhen. However, it is important to note that numerous Chinese cities face similar challenges to Shenzhen, such as high housing prices, limited land supply, and heavy reliance on land finance, especially among first-tier cities. Therefore, policymakers in these cities can potentially draw insights from the findings of this paper. Nonetheless, caution is warranted when attempting to extrapolate our results to cities with differing contextual factors from Shenzhen. Furthermore, it is crucial to acknowledge that the use of non-probability sampling and the snowball interview method introduces the possibility of sample selectivity bias. This potential bias should be taken into account when evaluating the generalisability of our findings. Additionally, while we have conducted a comprehensive exploration of the perspectives of tenants and landlords through questionnaires and interviews, our understanding of local government perspectives primarily relies on policy documents, reports, academic literature, and public statements made by governmental officials. It is important to highlight that interviews with officials and policymakers were not conducted due to the inherent challenges associated with accessing them and their reluctance to engage in discussions concerning sensitive political matters.

Despite the acknowledged limitations, it is important to highlight that our study represents a pioneering effort, to the best of our knowledge, in systematically analysing the PRS, even within a specific case city. Up to this point, the PRS in China has remained a poorly understood domain.

The absence of official data on vital aspects of the PRS, such as tenant and landlord demographics, due to the lack of a tenancy registration system, presents a significant challenge. Furthermore, comprehensive and large-scale surveys specifically targeting tenants and landlords are notably scarce. Hence, our study holds substantial value, not only for its pioneering and in-depth examination of the PRS in China but also for the broader international relevance of its methodology, which we elaborate on below.

Foremost, the *Tenant-Landlord-Government* stakeholder perspective employed in this study can serve as an analytical framework applicable in various contexts. By adopting this perspective, researchers and policymakers can identify the diverse challenges perceived by different stakeholders, leading to a more comprehensive understanding of the problems within the PRS and the potential solutions. This approach allows for a nuanced examination of the complexities involved in balancing the interests of tenants, landlords, and government entities. Moreover, the identification of three root causes of these challenges provides valuable insights. Although the specific challenges may vary across countries, the underlying causes may remain similar, particularly in countries where the PRS is still developing and lacks robust rules and regulations (Arku et al., 2012). Therefore, the identified root causes can serve as a starting point for further investigation and policy formulation in different national contexts. To expand on this research, future studies could delve deeper into the unique challenges faced by the PRS in various countries and explore how the identified root causes manifest within different contexts. Additionally, comparative studies are encouraged to examine the effectiveness of different policy interventions aimed at addressing these challenges in diverse socio-economic and cultural settings.

Notes

1. In this paper, metropolitan cities are defined as those with an urban population of 5 million or more, which is in line with the definition of 'especially big cities' (teda chengshi in Chinese) by the State Council. As of 2020, there were 21 metropolitan cities in China, seven of which have an urban population of more than 10 million and are known as 'super big cities' (chaoda chengshi). The four most developed cities (Beijing, Shanghai, Guangzhou, and Shenzhen) are termed 'first-tier' cities.
2. The 1998 Land Administration Law stipulates that urban land is owned by the state while rural land is collectively owned by the villagers. In many Chinese cities, there are still collectively-owned land plots surrounded by urban land.
3. Notably, China's political system is a top-down hierarchy where the central government only sets a broad policy guideline while the local governments adapt the guideline to local conditions (Ahlers & Schubert, 2015). Therefore, the policies proposed by the central government usually do not provide specific measures to be taken (e.g. how much tax should be deducted), and local governments implement these policies or initiatives differently.
4. Land plots that are used to build rental housing can be divided into at least three categories based on the procedure the plots are auctioned. The first category is 'for-rental-only' (chunzulin) land, which means only rental housing can be built on the land plots. The for-rental-only land plots are mostly acquired by the local-governance-owned companies because of the long payback period (CRIC, 2022). The second is 'self-retained' (zichi) land, which means a certain portion of the housing units should be held by the developer itself and used for

private rental housing while the rest of the land can be used for commodity housing. The third category is 'ancillary construction' (peijian) land, which means a certain portion of the housing units should be affordable rental housing. Private developers are generally more interested in acquiring the latter two kinds of land plots because owner-occupied housing is more profitable than rental housing.

5. It is named 'double centralized' because the policy stipulates that local governments should centralize the announcements of land provision (less than three times each year) and centralize the organization of land bidding activities.
6. The reason why owner-occupied housing is an important source of revenue for the local government but rental housing is not, is multifaceted. First, as mentioned above, the price-to-rent ratio in Chinese metropolises is extremely high, which means 'build-to-rent' is far less profitable than 'build-to-sale'. As a result, developers are not motivated to acquire land to build rental housing. Second, it is difficult for developers of rental housing to offer a high price for land because rental businesses generate income over a long period of time, rather than just once like house selling.
7. Securitization is 'the process in which certain types of assets are pooled so that they can be repackaged into interest-bearing securities' (Jobst, 2008).

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