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Housing in Chinese Urban Villages: The Dwellers, Conditions and Tenancy Informality

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ABSTRACT

While it is widely acknowledged that Chinese urban villages provide an important source of rental housing for low-income populations, the composition of their dwellers, housing conditions and rental contracts has not been adequately studied. Drawing from surveys of sixty urban villages in Beijing, Shanghai and Guangzhou, this study finds that housing in urban villages is more family oriented; that over half of dwellers work in the tertiary sector; and that although they have relatively stable jobs, few have job security with contracts. In predominantly rental housing, the housing unit is small. Tight control by the city government over housing development has led to quite expensive rentals measured by unit space as well as poorer housing conditions. Tenancy informality in terms of the absence of formal contracts is widespread and most severe in Shanghai. The lack of formal contracts is largely independent of the status of dwellers or their job status but is rather dependent upon the rent value.

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Introduction

Rapid urbanization in China has led to significant demand for housing. The influx of rural migrants has not been accommodated through the formal housing system (Wang *et al.*, 2009; Zhang *et al.*, 2003). Rather, they live in so-called chengzhongcun, or urban villages, which have been converted from rural villages into rental enclaves, encroached upon by urban expansion (Tian, 2008; Wu *et al.*, 2013). The disadvantaged housing conditions of rural migrants in the city are widely acknowledged (Wu, 2006; Zheng *et al.*, 2009). There are now extensive studies on Chinese urban villages (Liu *et al.*, 2010; Tian, 2008; Wu *et al.*, 2013; Zhang *et al.*, 2003; Zhao & Webster, 2011; Zheng *et al.*, 2009). But there is a lack of systematic study of housing in urban villages in terms of social composition, housing conditions and rental practices. Wang *et al.* (2010) suggest that ‘from the development point of view, we may find many positive contributions they [urban villages] have made during the process of rapid industrialization and urbanization’ (p. 173), because ‘this process made rapid economic development possible without the government spending any money on the provision of social welfare to the lowly paid migrant workers’ (p. 174). The development of

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urban villages is more informal than that of other residential areas in the city. On the other hand, migrants who live in informal settlements may have a restricted social network. Those who have better connections with local urban residents may have access to formal housing (Liu *et al.*, 2013). There are significant differences in social groups between a petty rentier class and rural migrants (He *et al.*, 2010). Although there are extensive studies on urban villages in China, existing studies are either drawn from specific case city (e.g. Wang *et al.*, 2010; Zheng *et al.*, 2009) or with specific concern for social inequality (He *et al.*, 2010) or social capital and social relation (Liu *et al.*, 2013) and informal land development (Wu *et al.*, 2013). Previous studies particularly stressed the informality in terms of development and land management (Wang *et al.*, 2009; Wu *et al.*, 2013) but the practices of renting are not studied. It is important to systematically examine housing in Chinese urban villages, and in particular the contract conditions for the rental housing which is a predominant form of housing tenure in urban villages.

The understanding of housing in informal settlements is important because slogans such as ‘cities without slums’ may actually legitimize the demolition of the habitat of the poor (Gilbert, 2007). The literature of urban informality shows that informality is not a unique phenomenon of the Global South but rather an outcome of neoliberalization linked to capitalism (Durst, 2014; Roy & AlSayyad, 2004; Ward & Peter, 2007). Legal entitlement might not be the key issue (Gilbert, 2002). Rather, living conditions should be evaluated (Gulyani & Bassett, 2010). Studies of informality focus on the owner-occupied sector. However, ‘occupancy security’ in rented housing has attracted attention (Hulse & Milligan, 2014).

Against this background, this study focuses on housing in Chinese urban villages. Specifically, the study examines the dwellers of urban village housing, housing conditions and the formality of tenancy. The remainder of the study is organized as follows. In Section 2, the study reviews self-help housing, slum definition, urban informality and security of tenure. In Section 3, the survey methodology is discussed. In Section 4, the profile of dwellers is examined. Section 5 examines housing conditions. This is followed by an analysis of tenancy informality in Section 6. Finally, conclusions are drawn for understanding housing in Chinese urban villages.

2. Literature review: informality and housing in the global south

The Global South is associated with the development of squatter areas and slums. The seminal research of Turner (1968, 1976) reveals the positive role of ‘self-help housing’ in Peru. Because of the lack of formal housing provision, self-help housing provides a popular form of cheaper accommodation. Self-help housing is often developed at an accessible location, while formal owner-occupied housing is built in suburbs, because the urban poor depend upon an informal labour market in the central urban areas. Because of their low affordability, the poor cannot afford to travel long distances from exurbs and have to live near the places where jobs are available. Turner’s study led to a change in international housing policies from supporting slum demolition and resettlement to a policy of *in situ* squatter upgrading in the 1970s and 1980s (Kiddle, 2010; Pugh, 2000). The slum upgrading policy largely addresses the lack of infrastructure in informal settlements.

In the Global South, self-help housing is concentrated in slums. Therefore, extensive studies have been devoted to housing conditions in slums. UN-Habitat (2003, p. 12) defines the slum through the characteristics of housing as:

an area that combines, to varying extents, the following characteristics (restricted to the physical and legal characteristics of the settlement): inadequate access to safe water, inadequate access to sanitation and other infrastructures; poor structural quality of housing, over-crowding and insecure status.

This definition contains several elements: first, it focuses primarily on the dilapidated physical conditions, and secondly on the insecurity of residential tenure. In that sense, the slum lacks basic infrastructure, and slum dwellers do not have recognized legal property rights (e.g. as squatters on public land). The latter reflects the informal nature of slums.

Recently, interest in urban informality has revived. Studies on urban informality pay attention to informal governance and land development. The condition of urban informality is created by deregulation in contemporary capitalism which allows exception to regulation (Roy & AlSayyad, 2004). Informality ranges from middle-class market housing deliberately breaching building codes (Weinstein, 2008) to lower-class self-help housing in slums.

Seen from the perspective of urban informality, housing in slums may have several different sources of informality. Development may breach the formal code of land use, intrude on the ownership of land and operate with irregular practices in selling or renting houses. While there are extensive studies on illegal development and slum housing, the informality of the rental sector has not been fully studied. Related to informal land and housing development is the issue of 'security of tenure'. Self-help housing lacks formal property rights. De Soto (2000) argues that the poor possess valuable assets that cannot be transacted because of unclear property rights or the lack of them. He advocated the legalization of land titles or land titling programmes, which should give formal property rights to residents. His view is supported by international development agencies such as the World Bank (Mooya & Cloete, 2007; van Gelder, 2007). However, criticism doubts the importance of formal titling, as housing sales without formal titles are common in developing countries (Gilbert, 2002). There has been a tradition of social practices recognizing *de facto* property rights (Musembi, 2007; Varley, 2002). The policy of legalization tries to incorporate informal housing into the formal market, which may increase the burden of housing ownership in taxes and paying for services, which in turn can disrupt community life and trigger a process of gentrification during which wealthier residents move into poorer informal settlements, leading to forced relocation. Payne (2004) further argues that it is not legal property rights but rather perceived security of tenure that is beneficial to occupants. This opens up the debate over *de facto* vs. *de jure* titles (Kiddle, 2010). The importance of property rights, however, is context sensitive.

On the issue of security of tenure, both support for and criticism of de Soto's view of property rights separate the perceived and legal aspects of property rights (Irazabal, 2009). But van Gelder (2009) finds that tenure legality and perceived security of tenure are closely related, which can enhance housing improvement. The original research by de Soto reveals the link between legal property rights and access to credit because, according to de Soto, undefined property rights prohibit occupants from gaining critical credit to improve housing. Van Gelder (2009) finds that there is no relation between security of tenure and access to credit.

So far the issue of security of tenure has focused on self-help housing, which is housing built by low-income households for their own consumption. For informal rental housing, attention has recently been paid to 'secure occupancy' (Hulse & Milligan, 2014). The question is whether the current housing system gives sufficient certainty and regulation to

ensure that renting is possible. For example, rental control is a policy measure used by the welfare state in more advanced economies. In the Global South, protection in terms of rental security is fairly minimal. The relationship between private landlords and tenants depends on social and cultural practices, though in general, their relation is amicable (Gilbert, 2002). Informality does not necessarily lead to lower security of tenure. Those who do not have formal property rights to land may be supported by the actual practices of housing subletting, land acquisition and compensation. So far informality has been talked about in terms of land ownership. But the concept can be extended to rental practices. This study uses informality to examine the practice of rental contracts in Chinese urban villages. Informality is not equivalent to insecurity, as suggested by the literature. The insights from the Global South is that we need to pay more attention to the informality and tenure security, not just their legal titles but also the actual occupancy. In the case of Chinese urban villages, the condition of rental housing is generally inadequate with particular vulnerability in terms of the threaten of demolition. Hence, the rental contract should be further investigated. Here, the study on Chinese urban village reveals the particular nature of this kind of 'private rental housing'. The severe tenancy informality reaches such an extent that the term of 'private rentals' might not be appropriate. This extreme informality is a conscious action to exclude tenants from claiming substantial right in the future (Wu, 2015b). Hence, the study of urban village housing may have a potential contribution to the general study of tenure security (Wu, 2015a).

Self-help housing has been widely studied in Latin America, South Asia and Africa. Zhang *et al.* (2003) first examined housing in urban villages from the perspective of self-help housing. However, there are significant differences, because Chinese urban villages provide rented housing market for rural migrants. The farmers in these areas redevelop their houses and lease them out to migrants. Rural migrants are tenants who have no property rights. Consequently, although farmers may suffer from urban redevelopment, they are still entitled to compensation. But as for the tenants, their rights have not been recognized. In this context, it is more appropriate to examine 'secure occupancy' than ownership. In order to understand the situation of occupancy, it is necessary to examine the tenancy contract. As argued in this article, the absence of tenancy contracts can be seen as a form of informality in which tenancy rights are not recognized. The land certificates of farmers do not give them the legal right to develop housing for sale, because the buyer cannot get the certificate transferred or obtain a formal deed from the land authority. Because of this legal constraint, housing in urban villages is predominantly for rent, although some farmer builders exploit loopholes in enforcement in rural areas (Wang *et al.*, 2014). In sum, the informality of urban villages includes a development approach in terms of unregulated or under-regulated housing construction for rental housing and unregulated rental practices which often have only a verbal contract or none. Landlords do not pay income tax from renting, while redevelopment does not recognize the space extended for rental housing. The informality of urban village development and redevelopment has been studied (Wu *et al.*, 2013). But housing rental practices have not been studied so far.

3. Methodology

The data for this study are drawn from a survey in three major Chinese cities, Beijing, Shanghai and Guangzhou, in 2010. According to the recent population census (the sixth

population census in 2010), these three municipalities have respective migrant populations of 7.04, 8.97 and 4.76 million. The provision of housing to migrant populations has thus become a serious problem. For each city, we obtained and developed a list of urban villages, and cross-verified it through fieldwork. Some villages have already been demolished and were thus removed from the list to make sure that all villages currently existed. For Beijing and Guangzhou, such an 'official' list exists because the municipal government has prepared an action plan to redevelop selected villages; while in Shanghai, our survey was in conjunction with an investigation conducted by the municipal planning bureau, which required district planning bureaux to provide detailed information on remaining villages. In Beijing, the list consists of 50 named villages to be redeveloped according to the urban redevelopment plan; in Guangzhou, there were 138 urban villages identified by the municipal government. Some residual villages were too small (a dozen remaining village houses) and were thus removed from the list. From the list for each city, 20 villages were randomly selected from the respective lists regardless of their sizes, which are broadly similar after removing very small villages. For each selected urban village, a quota of 20 copies of the questionnaire was designated. The sample of households in each village was selected based on a random start with a fixed interval. The sample was decided on the basis of main addresses (buildings) because a list of households was not available. To include migrants who are difficult to enumerate in the household registration system, an address-based approach is more appropriate and has been widely used in housing studies in Chinese cities (e.g. Fan, 2008, Li & Li, 2006). Next, face-to-face interviews were carried out by visiting the selected accommodation. Over 95 per cent of households were successfully interviewed, because in low-end residential areas, unlike the gated communities of commodity housing, places are generally accessible. The survey was mainly carried out at weekends when migrants were more likely to be at home. Although in theory some migrants might work at weekends and hence could be under-numerated, the problem is actually the opposite: it is more difficult to approach the local residents who are mainly landlords. The issue of under-numeration of migrants, if exists, would have two effects: the ratio of local to migrant population would be exaggerated. This is not the concern of this study. Second, some particular groups of migrants could be under-numerated (e.g. those who need to work during weekends). As this is a multi-site survey across 60 villages, the effect of under-numeration would not be an issue. The problem has to be rectified by comparing population census when the data become available. From our experience, we do not find some particular occupation of migrants would be under-numerated, because the timing for the survey was not fixed at a particular period during the weekends. The concern of under-numeration only becomes serious when there is a statistical inference between locals and migrants for their weekend working patterns. This is not the focus of this study. As a result, we do not feel that there is a bias towards local residents, as can be seen from the following discussion of the status of urban village residents. In total, 1208 valid questionnaires were generated through the survey. Thus, the database is a sample over a large number of villages in multiple cities and therefore is more representative than other case studies. Because the sample is a random survey of urban villages, the geographical distribution of sample villages is not even across the municipality, because the distribution of urban villages is not even. A majority are outside the 3rd ring road of Beijing and the inner circle road of Shanghai. In Guangzhou, urban villages are seemingly more evenly distributed, but a majority are outside the city proper.

4. The dwellers of urban village housing

Different from the earlier stage of rural to urban migration when migrants were mostly unmarried single workers, recent migration has become family based. A significant number of migrants in the three cities brought their spouses and children with them. This survey finds that over 80 per cent of spouses live at the same address, while the percentage of children is much lower. The lowest figure is in Shanghai where only about 50 per cent of families have their children with them. This is due to tighter living space and the higher cost of bringing up children in Shanghai. Most migrant children staying in Shanghai are of school age, suggesting that whenever possible, migrant families tend to leave their preschool children in their home countryside. In Guangzhou, a higher percentage of migrant families in villages (about 66 per cent) brought their children to their rental accommodation (Table 1). While there is still a large proportion of families that leave their children behind, urban villages are increasingly a place for family life. The availability of informal housing in contrast to the factory dormitory provides such an opportunity, and the urban village can be regarded as a more family-oriented living space.

In terms of the status of the household head, because the sample reflects the general composition of households in urban villages, it is possible to estimate the proportion of local villager families, which is generally low (Table 2). There might be a bias in that it was more difficult to approach villager landlords than migrant tenants. However, such a bias was not felt to be severe during the survey, and the difference would not change the quite low percentage to a much higher one. The conclusion would still be valid. There are two categories of local villagers: one with entitlement to village assets (shareholders), and the other having no access to shares (Po, 2008). Overall, the percentage of the two groups of

Table 1. The family conditions of informal housing dwellers in terms of children locations.

		Shanghai	Beijing	Guangzhou	Total
Living at the same address	No. of cases	166	161	184	511
	Percentage	49.0	56.5	66.4	56.7
Living in other places in the city	No. of cases	38	26	24	88
	Percentage	11.2	9.1	8.7	9.8
Living in other cities	No. of cases	39	24	28	91
	Percentage	11.5	8.4	10.1	10.1
Living in rural areas (including home place)	No. of cases	96	74	41	211
	Percentage	28.3	26.0	14.8	23.4
Total	No. of cases	339	285	277	901
	Percentage	100.0	100.0	100.0	100.0

Table 2. The profile of informal housing dwellers in terms of the status of household heads.

		Shanghai	Beijing	Guangzhou	Total
Local villagers entitled to share of village assets	No. of cases	17	20	42	79
	Percentage	4.2	5.0	10.5	6.6
Local villagers without shareholding status	No. of cases	16	33	19	68
	Percentage	4.0	8.3	4.8	5.7
Local urban residents (not villagers)	No. of cases	20	26	50	96
	Percentage	5.0	6.5	12.5	8.0
Migrants	No. of cases	346	318	288	952
	Percentage	86.5	79.7	72.2	79.5
Others	No. of cases	1	2	0	3
	Percentage	0.2	0.5	0.0	0.3
Total cases		400	400	399	100.0

villagers is around 10–15 per cent. This is partially due to the overwhelming number of migrants moving into urban villages and partially due to the relocation of local villagers who bought better housing in the city. In Guangzhou, it is noteworthy that urban villages are not just for migrants. About 12.5 per cent of households of urban villages are urban residents in Guangzhou who may not be able to afford the property prices in the city and choose to live in villages as a cheaper place. To some extent, this suggests that the villages in Guangzhou are better developed and serviced and are not just for migrants.

In terms of educational attainment, about one-third of adult residents have junior high education, and about 15–20 per cent only have primary school education. Compared with the educational profile in the city, the overall educational profile shows that households in urban villages are skewed towards the lower end of educational attainment. According to the sixth population census (2010), Beijing has over 31.5 per cent of university or above education level, while the figure for Shanghai is 21.9 per cent. But in urban villages, only 15 per cent of adult residents have university education. Among the three cities, the average level of education in Beijing is the highest, because in many Beijing villages, new university graduates who cannot afford housing in Beijing itself may also reside there.

In terms of employment, the sample covers 2718 valid household members (the survey numerated all family members). About 75 per cent of family members including the head of household are employed. The rest include students, retired people, people having non-working capacity, unemployed or self-employed. Among those who actually work, over half are sole workers or small private business owners or employees of private business. In Shanghai, about 35 per cent are self-employed or employees of private business, while the figure is only 16 per cent for Beijing and 19 per cent for Guangzhou. This suggests that more people operate small businesses in Beijing and Guangzhou, while in Shanghai, a higher percentage of people work for others. Very few people in urban villages have formal employers such as state-owned enterprises.

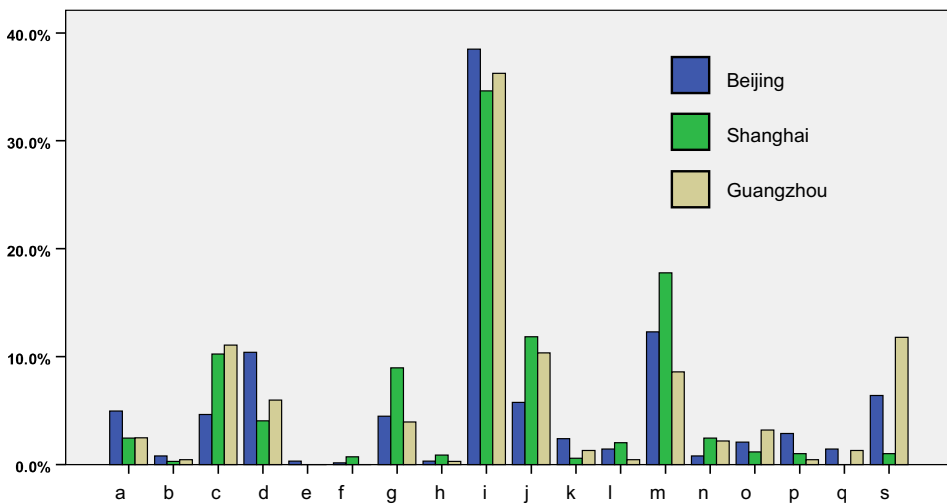


Figure 1. Distribution of occupation sectors in urban villages in Beijing, Shanghai and Guangzhou (for the sector labels, see: (a) agriculture, (b) mining, (c) industry, (d) building, (e) geological exploration, (f) irrigation, (g) transport and telecommunication, (h) warehouse, (i) commerce (retail and wholesale), (j) catering, (k) finance and insurance, (l) real estate, (m) social services, (n) health, (o) education, (p) research, (q) government and organization, (s) others).

In terms of occupational sectors, the sample covers 2006 valid household members. Over 55 per cent are in the sector of retail and social services such as catering (Figure 1). Very few are in the sectors of education, research and technology, and government. While there are about 10 per cent of migrant workers in industries in Shanghai and Guangzhou, the figure is as low as 5 per cent in Beijing. Over 10 per cent of migrants work in the building industry in Beijing, while the figure for Shanghai and Guangzhou is only 4 per cent. The reason for the higher number of industrial workers in Guangzhou is that there are many small workshops inside the villages, because of the practice of retaining land for collective use during land requisition, so that land for non-residential uses survived and was rented out. In Shanghai, many urban villages formed near industrial zones, and workers can travel conveniently to these workplaces.

In terms of job stability, in contrast to the conventional wisdom that migrants change their jobs frequently, over 65 per cent of migrant workers have not changed jobs in the last three years. Less than 18 per cent changed once in three years. Such a rate is remarkable, considering that the average age for migrants is 30 years and they are in the early stages of their working career. However, despite this job stability, very few have job security. Less than 4 per cent of migrant workers have permanent jobs, and the percentage of long-term job contracts is below 10 per cent.

Pulling the above information together, we can create a general picture of the dwellers in urban villages. Local farmers only account for a small percentage of the population living in these places. Rural migrants and their families are the predominant population. Most do not have local or urban household registration status. But they are not lone workers, and nearly all live with their spouses if they are married. In this sense, the housing in urban villages is more family oriented to accommodate the needs of family life. They are not predominantly industrial workers, and over half work in the tertiary sector, while one-third are self-employed or small private business employees. Although their jobs are quite stable (for the same employer for over three years), few have secure jobs and most have no long term or permanent contracts. They present certain features of informal workers in a service sector.

5. Housing conditions in urban villages

The housing conditions in urban villages are generally described as dilapidated and inadequate (Liu *et al.*, 2010; Tian, 2008; Wu, 2006; Zhang *et al.*, 2003; Zheng *et al.*, 2009). The rental housing in urban villages has been developed in response to the demand for low-end housing. In contrast to the upward trajectory of design and building qualities in middle-class commodity housing in the city, informal rental housing in urban villages remains modest. In terms of housing space, housing units in urban villages are much smaller, especially in Shanghai where the constraint on housing development in urban villages is stronger. The average per capita housing space per unit in the three cities is only 16.5 m², but for Shanghai, the figure was as low as 7.9 m², far below the average of the city, which was 17.5 m² in 2010 (Shanghai Statistical Bureau, 2011).

Very few housing units have more than two rooms. In Shanghai, over 80 per cent of rental housing in urban villages has only one room, and over 80 per cent of housing units have no reception room. The percentage of one-room rental housing for Beijing is 75 per cent, and for Guangzhou it is lower, at 59 per cent. In other words, in Guangzhou, there is about 41 per cent of rental housing in urban villages with two or more rooms. About 73

per cent has one reception room. Housing conditions are thus better. Considering that the dwellers are not single persons but married with families, the informal rental housing is very crowded with very tight living space. In Shanghai, about 47 per cent of rental housing has an average per capita space under 5 m^2 , while Guangzhou has more spacious rental housing in villages, with only 6 per cent of rental housing in this category. In these three cities, there are government regulations to specify minimum living space. In Shanghai, the lowest limit is 7 m^2 for urban residents. According to this standard, about 74 per cent of migrant housing breaches this regulation. In 2011, the Shanghai government intends to reduce the minimum space to 5 m^2 , according to new regulations for rental housing. However, there is still 48 per cent of migrant housing that does not reach this minimum standard. Comparing these three cities, this study finds that the housing conditions in Shanghai are the lowest. Such tight space is due to strict control over self-build and extensions of informal housing for private rental. Without demolishing the old housing, because of its poor structure, it is difficult to extend housing to create more space for rental housing.

In terms of monthly rent, the average is 544 Yuan per unit and 36 Yuan per m^2 for the sample of three cities. The distribution of rent is skewed towards the lower end (Figure 2). For example, in Guangzhou, 66.7 per cent of housing units in urban villages have a rent between 251 and 500 Yuan per month per unit. While cheaper rental housing is available in Beijing and Guangzhou, in Shanghai, it is very difficult to find rental housing below 250

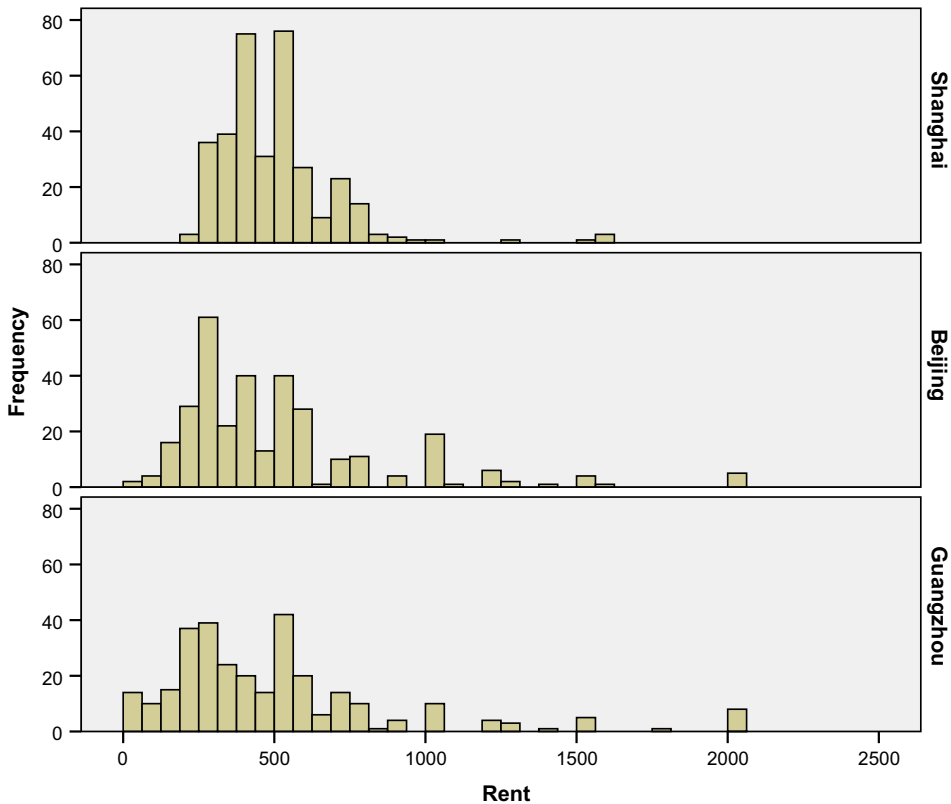


Figure 2. The distribution of rent in three cities (unit: Yuan).

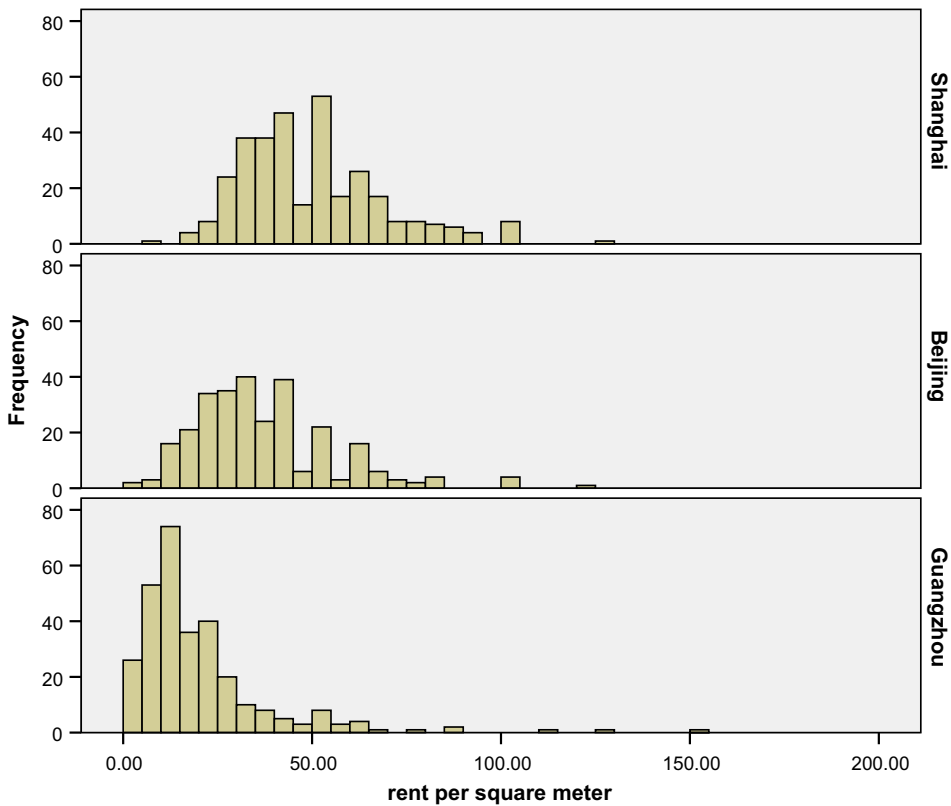


Figure 3. The distribution of rent per square meter in three cities (unit: Yuan).

Yuan per month. This has resulted in a much more expensive profile for rental housing in Shanghai, with an average rent per m^2 as high as 49 Yuan per month.

In terms of rent per m^2 , in Shanghai, only 6 per cent of housing units have rent below 25 Yuan per m^2 per month, while in Guangzhou, 80 per cent of housing units have rent lower than 25 Yuan per m^2 per month, and the figure in Beijing is between these two extremes at 34 per cent. It can be seen from Figure 3 that rent is much cheaper in Guangzhou, because of the abundant urban villages in the city. As a result, the relatively higher rent prevents the lower end of migrants from living in Shanghai.

Because the average unit floor space of commodity housing in the city is larger, migrants generally cannot afford to rent commodity housing units. It is generally difficult to subdivide and co-live in these commodity housing units because they are designed as single-family apartments and relatively stringent regulation prohibits 'sharing the rental house' (known as *qun zu*). On the other hand, rental housing in the village market is more flexible and can be divided into bedsits. The attraction of informal housing is its flexibility in response to market demand for smaller units. Commodity housing tends to be larger, and the unit size tends to increase. To control size and inflation in property prices, the government has announced that the majority (about 70 per cent) of newly built commodity housing should be built with less than $90 m^2$. From this regulation, it can be seen that commodity housing is generally larger than small private rental housing in urban villages. For a unit of $90 m^2$, the monthly rent would be up to 4381 Yuan, if the rent per m^2 for urban village housing were

used, while in reality, the average rental housing unit only reaches 493 Yuan per month, because the average size of private rental is only 10 m². It is rather ironic that poor and low-income migrant families live in more expensive rental housing in urban villages. The only way to save costs is to reduce unit size and sacrifice the quality of housing.

In terms of tenure, because the sample was randomly drawn from the urban villages, the tenure structure of the sample should generally reflect the overall tenure composition, although it might be slightly more difficult to approach the landlord. But quality control during the survey did not suggest that the landlord was overly under-sampled. In tenure composition, about 17.4 per cent of families are in the owner-occupied sector, and the rest are in the rental sector. Ownership is very different from how it is in the city, because urban home ownership is composed mainly of privatized public housing and new commodity housing. But in urban villages, the predominant ownership is the self-built or inherited farmer's house. Still, a very small proportion (about 1.2 per cent) claimed that they had bought the house as true commodity housing, which indicates that commodity housing does exist in villages, probably because within the boundaries of villages, some land has been sold for housing development. The major form of tenure is informal rental housing, which accommodates 69 per cent of households. About 6.5 per cent of families rent private urban housing, and 3 per cent rent collectively built village rental housing.

Table 3 shows the level of facilities in urban villages in three Chinese cities. In contrast to almost universal access to water, the rate of possessing a kitchen varies. In Guangzhou, about 77 per cent of households have an independent kitchen. In Shanghai, the figure is as low as 21 per cent, and in Beijing, the rate is slightly higher at 29 per cent. Without a separate kitchen, urban village dwellers have to use a gas or electric cooker in the corridor or outside the house to cook. For many villages where space is extremely cramped and the electric wiring is outdated and overloaded, this can lead to a potential fire hazard.

In almost all indicators, urban villages in Guangzhou have much better conditions than those in Shanghai and Beijing. For heating and heating equipment, Beijing villages have the highest rate, because of the cold weather in the winter. Having heating facilities is deemed a necessity. The rate of having an indoor toilet is generally low in Beijing and Shanghai villages. The dwellers have to use public toilets. In Shanghai, urine containers are still used, despite the claim that these have been abolished in the city since modern toilets became widespread in new housing. Because of the lack of a shower or bathroom inside the house, the dwellers in Beijing and Shanghai go to commercially operated bathrooms in the winter. The charge is normally 5 to 10 Yuan per person. These bathrooms use large boilers to provide hot water. In Shanghai, because of the lack of a kitchen and more expensive fuel for

Table 3. The conditions of facilities of informal housing in urban villages of Beijing, Shanghai and Guangzhou (in percentages).

Facilities	Beijing	Shanghai	Guangzhou	Total
Kitchen	28.9	20.8	77.2	42.2
Toilet	21.4	17.5	88.7	42.5
Shower	17.2	13.6	79.4	36.7
Liquid gas	46.8	77.0	86.0	69.9
Piped gas	5.7	7.3	5.8	6.3
Air conditioning	24.4	23.8	33.8	27.3
Heating	52.9	0.8	3.5	19.1
Internet	42.6	21.5	47.9	37.3

individual families, residents are encouraged to use the central boiler to buy hot water. It is said that the use of a central boiler can reduce fire hazard because the fire can be properly monitored, and individual families thus can avoid using electricity to heat the water, which may otherwise overload the capacity of electric wiring in the summer.

Because of extremely hot weather in the summer, air conditioning is a necessity in many cities in China. The rate of having an air conditioner in the urban villages of the three cities ranges from 34 per cent in Guangzhou to 24 per cent in Beijing and 23 per cent in Shanghai. Because of the constraint in electricity capacity (lower voltage due to overloaded use), it is difficult to install air conditioners in urban villages. In contrast to the shortage of portable water in other developing countries, the indicator to differentiate conditions in Chinese informal housing in urban villages is the availability of air conditioning. Surprisingly, due to the rapid development of Internet use in China, these informal housing units are well connected. About 40 per cent of households have access to the Internet. In Guangzhou, the rate reaches 48 per cent, while in Shanghai, only 22 per cent of households have a connection in the house. However, in all three cities, there are many 'internet cafes' that are specialized for Internet access but mainly for playing networked computer games. The cost is about 2 Yuan per hour. Many younger migrants in these villages tend to use the Internet for recreation, for example playing games and participating in online forums. The widespread availability of the Internet including connection through mobile phones at a relatively cheap cost in Chinese urban villages indicates that they are not necessarily isolated from the rest of the city.

The condition of slum housing varies across developing countries but access to water remains a critical challenge for informal settlements (UNCHS, 2003; UN-Habitat, 2003). In China, among the samples of this study, access to water does not seem to be a problem. Most villages are connected to the water supply. Chinese urban village housing lacks inside toilets and separate kitchens, but at the same time has some high-level facilities such as air conditioning and Internet connections. Living conditions, although crowded, are convenient because they are generally located in more accessible areas inside the city; they were built and extended from existing rural villages rather than on steep slopes as in Brazilian *favela* (Perlman, 2010) or on deserted land alongside railways or water pipes as in India (Roy & AlSayyad, 2004). The housing in urban villages has also been upgraded along with the arrival of migrants working in better-paid jobs. The lack of a toilet inside the house is not a universal problem. The rate of having a toilet is as high as 89 per cent in Guangzhou. This is because, compared with Shanghai and Beijing, Guangzhou has seen a wide spread of housing development in urban villages (Zhang *et al.*, 2003) Landlords built toilets inside apartments to suit the needs of tenants leading to the more developed housing market in Guangzhou, whereas in Shanghai and Beijing, the rental market in urban villages is more constrained by external development controls. As a result, in these two cities, especially Shanghai, landlords only incrementally extended housing space or more often subdivided it into smaller rental rooms. As a result, it is impossible to install a toilet inside the apartment.

6. Tenancy informality: the absence of a written contract

In the original questionnaire, tenancy contracts are classified into three categories: written contract, verbal agreement and without any contract. While it is difficult to distinguish between verbal agreement and those without any contract, the latter shows a more temporary

Table 4. The status of tenancy contract of informal housing in the villages of Beijing, Shanghai and Guangzhou.

Tenancy contract	Beijing	Shanghai	Guangzhou	Total
Written contract (%)	27.8	15.8	56.3	32.4
Verbal agreement (%)	47.8	82.5	25.2	53.1
None (%)	24.4	1.7	18.5	14.5

arrangement, i.e. the landlord and tenant have not even discussed the length of residence and the conditions upon which the length depends. While the verbal agreement has no legal effect, it still has an effect on both parties in the setting of traditional society. However, because the distinction between these two types is ambiguous, there are potential errors in the survey. These two categories are combined into an informal rental category in this study. Table 4 shows the distribution of contract situations. The table shows quite a high percentage for written agreements in Guangzhou. A very large percentage (about 85 per cent) in rental housing in Shanghai have only verbal agreements. This may be due to the fact that informal housing in Shanghai has a much lower quality, mainly through self-extension rather than new build as in Guangzhou. In that sense, Guangzhou has a customized rental market.

For analyses, the dependent variable, showing whether there is a written agreement or not, is regressed over a set of explanatory variables, including residents' socio-economic and demographic status (marriage status, age of the household head), 'investment' in the neighbourhood (the length of residence, which is measured in terms of the number of years, taking the current year as 1, then taking a natural log), and residential status as rural migrants, residents from the city or local villagers. Table 5 presents the models of tenancy informality. The first model is a regression without considering the effect of cities, and the second model is controlled for city variation. Compared with those who do not have jobs or are in a situation other than working, people with permanent or long-term job contracts as well as medium- or short-term job contracts do not have a significantly higher chance of signing a tenancy contract. Neither do private business people nor the self-employed. Only temporary workers without a job contract are less likely to have a tenancy contract, given their extreme level of job mobility and hence the need to maintain some flexibility in housing. However, residents in urban villages generally have a quite stable job history, in contrast to the common perception that most migrants are very mobile. More than 65 per cent of the migrant population had not changed jobs in the last three years. Very few had changed more than three times. The effect of job stability on tenancy contract is only present for those who have changed job more than five times. However, job mobility, when the nature of the contract is controlled, does not reduce the chance of signing a tenancy contract. On the contrary, frequent job changes perhaps give movers more experience in protecting themselves through a tenancy contract. The analysis of job contracts and job stability shows that for the majority, these two factors do not have a significant effect on tenancy contracts. The chance of having a written rental contract in an urban village is not reduced by job instability as long as residents have a job contract. For informal jobs without a contract, however, it is unlikely that there will be a written tenancy contract.

Compared with other non-local residents (who come from the city), rural migrants are less likely to sign a tenancy contract. The local villagers, however, show no difference in this respect. Other demographic factors do not have a significant effect: marriage, the presence of children, the age of the household head or even educational levels, does not affect the

Table 5. Logistic regression model for contract formality (the dependent variable = 1, if there is a written contract).

	Model 1		Model 2 (with city variation)	
	B	S.E.	B	S.E.
<i>Household socio-economic attributes</i>				
Age	-0.018	0.010*	-0.019	0.011*
With children	0.257	0.181	0.156	0.197
Female-headed household	0.369	0.227	0.205	0.249
Married (=1, otherwise = 0)	-0.277	0.234	0.080	0.253
Education (reference: university and above)				
Primary and below	0.253	0.314	0.219	0.336
High school	0.320	0.229	0.277	0.245
<i>Residential status</i>				
Resident status (reference: non-local urban)				
Migrants	-0.900	0.422**	-0.596	0.454
Villagers	-0.049	0.934	-0.083	0.975
Length of living (Ln, starting with current year = 1)	-0.204	0.098**	-0.330	0.107***
Rent	0.001	0.000***	0.001	0.000***
<i>Job formality and stability</i>				
Job contract (reference: permanent and long term)				
Medium and short term	-0.176	0.284	0.133	0.309
Temporary	-0.613	0.324*	-0.810	0.348**
Self-employed or businessperson	0.636	0.287**	0.450	0.309
Others	0.062	0.397	-0.460	0.421
Job stability (reference: no change over last 3 years)				
Changed once	0.175	0.221	-0.008	0.243
Changed 2 times	-0.156	0.240	-0.160	0.259
Changed 3 to 5 times	0.253	0.397	0.119	0.429
Changed over 5 times	1.047	0.559**	1.051	0.633*
<i>City variation (reference: Guangzhou)</i>				
Shanghai			-2.226	0.243***
Beijing			-1.511	0.201***
Constant	0.352	0.593	1.198	0.660*
-2 log likelihood	975.204		861.340	
Sample size	828		828	
ρ^2 (Nagelkerke)	0.143		0.303	

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

situation of tenancy contract. Only having a female head of household may increase the chance of tenancy formality.

The two significant factors for a written contract are rent value and length of residence. Rent value contributes positively to formal tenancy. The more expensive the rental, the more likely it is that there will be a tenancy contract. This is understandable because both landlord and tenant wish to protect their investment in the upper rental market. However, the longer a resident lives in a village, the lower the likelihood of signing a contract. This may suggest that over a certain period, the tenant develops a degree of trust, which replaces a formal contract with the landlord. Our data do not allow us to find out whether this is due to the effect of dropping a contract or simply because of rental stability in the same place. It could be the other way around. That is, those who have an intention to stay and were introduced by close friends or tenants who are already in the property do not sign a contract because there is sufficient trust and certainty on both sides.

Overall, the analysis of tenancy suggests that for the majority of urban village tenants, their demographic and socio-economic status is irrelevant to tenancy formality. Informality

of tenancy is the norm rather than the exception, and along with the increasing length of living in the same village, as well as the increasing age of tenants, the need for a formal contract disappears. Only more frequent job changers (but with a job contract) enter into a formal contract. Also, the upper rental market increases the chance of a contract. The informality of the rental market is present for migrants without a contract. For the cheaper rental and the informal job market, the presence of rental housing without a written contract is a way of life. This study verifies the link between informal job and housing, while for the lower end of rental housing, the presence of tenancy informality is apparent.

The above analysis has not taken variation between cities into account. As discussed earlier, the situations in Beijing, Shanghai and Guangzhou varied significantly. While there were only 15.7 per cent of tenants with a formal contract in Shanghai, the figure is higher at 27.7 per cent in Beijing, and as high as 56.3 per cent in Guangzhou. The much higher proportion of formal rental contracts in Guangzhou reflects the fact that rental housing in urban villages is quite normal, and even attracts low-income residents from the city. As discussed earlier, the conditions of rental housing in Guangzhou are much better than in the other two cities. Informal rental housing in Guangzhou is becoming mainstream housing for new migrants, including those from other cities or new graduates who cannot afford the price of commodity housing. Taking variation into account, the model of tenancy informality shows similar results with some differences.

The model shows that private business people or the self-employed (but not those who have no job contract) have a higher chance of signing a tenancy contract. Changing jobs more frequently than five times in the last three years also increases the chance of having a written contract. This sounds counterintuitive but frequent job change with a contract may signify the capacity rather than the instability of the resident in a dynamic job market. When the city factor is controlled, the status of the migrant does not affect the formality of tenancy (that is, the likely migrant effect is actually an effect of city difference). Neither do other socio-economic and demographic variables. The value of rent and the length of stay operate in opposite directions. The higher the rent, the more likely there is to be a formal contract, but the length of residence reduces the chance. This is quite interesting, suggesting that a tenancy contract is not a precondition of residential stability. That is, a stable life in the city might not depend upon the signing of a rental contract, which reflects the limits to seeing the formal contract as offering security of tenancy. Compared with Guangzhou, Shanghai is less likely to see a formal contract, even when other factors are controlled (i.e. this is not due to the fact that there might be more self-employed migrants in Guangzhou or a higher proportion of job contracts in Shanghai). The chance of having a tenancy contract is lower in Beijing compared with Guangzhou but higher than that in Shanghai.

In sum, household attributes do not matter much in the formality of tenancy contracts. When the significant differences between the three cities are considered (hence providing a more accurate account), even the status of migrants is irrelevant. Tenancy informality is essentially a feature of the cheaper rental market in urban villages. The rental market of the urban village is an informal one providing cheap and flexible accommodation for migrants.

7. Conclusion

This study draws upon a survey of 60 villages in Beijing, Shanghai and Guangzhou to understand the dwellers, housing conditions and tenancy contracts in urban villages. The results

show that housing conditions in urban villages vary across the cities. In general, housing in urban villages is smaller than housing developed by the formal market. In particular, Shanghai has the lowest per capita living space, far below the city average. The housing is in an overcrowded condition. In terms of facilities, all informal housing units have a portable water supply but lack the facilities of indoor toilets and kitchens. Again, Guangzhou sees much improved housing conditions, with the indoor toilet rate as high as 89 per cent. Its housing market in urban villages is more mature and developed than in the other two cities. In Guangzhou, private landlords tended to completely demolish the original houses and build new apartment buildings on the land plots assigned to them. They also provided certain facilities in response to market demand. In Shanghai, because of stricter control over rebuilding, residents in urban villages can only carry out housing extensions. In all three cities, there are even more advanced facilities such as air conditioning and Internet connection. If the operational definition of slums proposed by UN-Habitat (2003) is applied to evaluation, the urban villages cannot be classified as 'slums' in terms of housing conditions and facilities, but rather as informal housing areas.

This study finds that urban informality is more or less a feature of the low-end market: cheaper rental housing appears to have a lower chance of having a written contract. In one way, the lack of a written contract could be interpreted as it not being worth having a contract for cheap housing, because except for the physical structure, there is literally nothing to be written into the contract. Another practical reason for this is avoidance of tax on rental income. Most rental housing is rented out as an addition to village household income. In Guangzhou, as the rental market became more developed, more formal practices began to be developed, while in Shanghai, rental housing in urban villages is more or less drawn from extended housing space. For higher-end and more purpose-built rental apartments, it is the landlords who wish to protect their rights to avoid litigation and hence they require a contract from the tenants.

The rate of written tenancy contracts varies across cities. It is as high as 56 per cent in Guangzhou, whereas the rate in Shanghai is only 16 per cent and in Beijing it is 28 per cent. Despite the government requiring the landlord to prepare a rental contract for tenants, many landlords do not follow the instruction. What is the source of this informality? This study finds that informality in the Chinese rental market is associated with the lower segment of housing rather than the attributes of migrant families themselves. In other words, it is not because rural migrants are not able to secure a formal contract or because they have high job mobility. In fact, most migrants have a quite stable job experience, in contrast to the common perception that they float from place to place. Frequent job changes do not lead to the absence of rental contracts. On the contrary, for those who have changed job quite frequently, a formal contract is deemed more likely to be an approach to protecting their rights. Furthermore, a self-employed or small private sector businessperson might be more likely to sign a written contract with the landlord.

The informal housing market in urban villages has developed in response to demand for cheaper rentals. Along with the increase in wages, migrants have begun to demand better living conditions. As a result, some rental apartments have begun to install air conditioning and provide Internet connections, especially for those new university graduates who cannot afford commodity housing. In other words, current housing options are choices made by migrant families themselves. They prefer smaller housing units (around 15–20 m², including one room and a small cooking area) to save costs. Commodity housing, on the other hand, targets urban households and generally has a larger unit size (over 90 m² per

unit) and is too big for migrant families in terms of costs. Urban informality is the most cost-effective way to negotiate a shelter in this case. The formal rental housing market in the city is expensive. Through comparing the informal housing markets in Beijing, Shanghai and Guangzhou, we find that when the municipal government is more tolerant and flexible towards informal development, the quality of rental housing improves, and tenancy formality begins to develop.

In China, the informal tenancy arrangement does not prohibit landlords from developing informal rental housing, because landlords do not have difficulty removing tenants if the latter fail to pay the rent. In contrast, many formal commodity housing units are left vacant because the owners have invested in properties for value appreciation. They are more reluctant to rent the property out because of the fear of legal complications and taxation. The current land law does not give full property rights to informal housing landlords (Wang *et al.*, 2014). They cannot sell their properties on the open urban housing market because no deeds can be obtained from the land register. But the formal legal restriction does not prevent the development of a buoyant market of informal rental housing in urban villages. Informal tenancy with verbal agreement or without agreement at all is widespread. When informal housing is redeveloped, tenants are simply displaced without compensation, regardless of whether there is a tenancy contract. In this sense, a rental contract does not guarantee 'security of tenure' for the tenants, which is a major source of disadvantage for migrant workers in the city. Legalization and titling programmes have been a major development in the regulation of information housing in developing countries (de Soto, 2000). Moreover, it is suggested that perceived tenure security is more important than *de jure* property rights (van Gelder, 2009; Varley, 2002). The landlords of informal housing in Chinese urban villages have perceived security of tenure and thus are willing to invest in the extension and redevelopment of houses in urban villages. While the importance of security of tenure is emphasized (UN-Habitat, 2007), Chinese urban villages show that informal housing is a practical way to provide accommodation to low-income migrant tenants, but does not ensure their security of tenure.

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References

- Durst, N. J. (2014) Landlords and tenants in informal 'Colonia' settlements in Texas, *Housing Studies*, 29(2), pp. 198–214.
- Fan, C. C. (2008) *China on the Move: Migration, the State, and the Household* (Abingdon, OX: Routledge).
- Van Gelder, J.-L. (2007) Feeling and thinking: Quantifying the relationship between perceived tenure security and housing improvement in an informal neighbourhood in Buenos Aires, *Habitat International*, 31, pp. 219–231.
- Van Gelder, J.-L. (2009) Legal tenure security, perceived tenure security and housing improvement in Buenos Aires: An attempt towards integration, *International Journal of Urban and Regional Research*, 33(1), pp. 126–146.
- Gilbert, A. (2002) On the mystery of capital and the myths of Hernando de Soto: What difference does legal title make?, *International Development Planning Review*, 24(1), pp. 1–19.
- Gilbert, A. (2007) The return of the slum: Does language matter?, *International Journal of Urban and Regional Research*, 31(4), pp. 697–713.
- Gulyani, S. & Bassett, E. M. (2010) The living conditions diamond: An analytical and theoretical framework for understanding slums, *Environment and Planning A*, 42(9), pp. 2201–2219.
- He, S., Liu, Y., Wu, F. & Webster, C. (2010) Social groups and housing differentiation in China's urban villages: An institutional interpretation, *Housing Studies*, 25(5), pp. 671–691.
- Hulse, K. & Milligan, V. (2014) Secure occupancy: A new framework for analysing security in rental housing, *Housing Studies*, 29(5), pp. 638–656.
- Irazabal, C. (2009) One size does not fit all: Land markets and property rights for the construction of the just city, *International Journal of Urban and Regional Research*, 33(2), pp. 558–563.
- Kiddle, G. L. (2010) Key theory and evolving debates in international housing policy: From legalisation to perceived security of tenure approaches, *Geography Compass*, 4(7), pp. 881–892.
- Li, S.-M. & Li, L. (2006) Life course and housing tenure change in urban China: A study of Guangzhou, *Housing Studies*, 21(5), pp. 655–672.
- Liu, Y. T., He, S. J., Wu, F. L. & Webster, C. (2010) Urban villages under China's rapid urbanization: Unregulated assets and transitional neighbourhoods, *Habitat International*, 34(2), pp. 135–144.
- Liu, Z. L., Wang, Y. J. & Tao, R. (2013) Social capital and migrant housing experiences in urban China: A structural equation modeling analysis, *Housing Studies*, 28(8), pp. 1155–1174.
- Mooya, M. M. & Cloete, C. E. (2007) Informal urban property markets and poverty alleviation: A conceptual framework, *Urban Studies*, 44(1), pp. 147–165.
- Musembi, C. N. (2007) De Soto and land relations in rural Africa: Breathing life into dead theories about property rights, *Third World Quarterly*, 28(8), pp. 1457–1478.
- Payne, G. (2004) Land tenure and property rights: An introduction, *Habitat International*, 28, pp. 167–179.
- Perlman, J. (2010) *Favela: Four Decades of Living on the Edge in Rio de Janeiro* (Oxford: Oxford University Press).
- Po, L. (2008) Redefining rural collectives in China: Land conversion and the emergence of rural shareholding co-operatives, *Urban Studies*, 45(8), pp. 1603–1623.
- Pugh, C. (2000) Squatter settlements: Their sustainability, architectural contributions, and socio-economic roles, *Cities*, 17(5), pp. 325–337.
- Roy, A. & Al Sayyad, N. (Eds) (2004) *Urban Informality: Transnational Perspectives from the Middle East, Latin America, and South Asia* (Oxford: Lexington Books).
- Shanghai Statistical Bureau (2011) *Shanghai Statistical Yearbook 2010* (Shanghai: Shanghai Statistical Press).
- De Soto, H. (2000) *The Mystery of Capital: Why Capitalism Triumphs in The West and Fails Everywhere Else* (New York: Basic Books).
- Tian, L. (2008) The chengzhongcun land market in China: Boon or bane? – A perspective on property rights, *International Journal of Urban and Regional Research*, 32(2), pp. 282–304.
- Turner, J. (1968) Housing priorities, settlement patterns, and urban development in modernizing countries, *American Institute of Planners Journal*, 10(10), pp. 354–363.

- Turner, J. (1976) *Housing by People: Towards Autonomy in Building Environments* (London: Boyars).
- UNCHS (2003) *Rental Housing: An Essential Option for the Urban Poor in Developing Countries* (Nairobi: United Nations Centre for Human Settlements (HABITAT)).
- UN-Habitat (2003) *The Challenge of Slums: Global Report on Human Settlements* (London: Earthscan Publications Limited).
- UN-Habitat (2007) *Global Report on Human Settlements 2007: Enhancing Urban Safety and Security* (London: Earthscan Publications Limited).
- Varley, A. (2002) Private or public: Debating the meaning of tenure legalization, *International Journal of Urban and Regional Research*, 26(3), pp. 449–461.
- Wang, Y. P., Wang, Y. & Wu, J. (2009) Urbanization and informal development in China: Urban villages in Shenzhen, *International Journal of Urban and Regional Research*, 33(4), pp. 957–973.
- Wang, Y. P., Wang, Y. & Wu, J. (2010) Private rental housing in ‘urban villages’ in Shenzhen: problems or solutions?, in: Wu, F. & Webster, C. (Eds) *Marginalization in Urban China: Comparative Perspectives*, pp. 153–174 (Basingstoke: Palgrave Macmillan).
- Wang, L., Sun, T. & Li, S. (2014) Legal title, tenure security, and investment – An empirical study in Beijing, *Housing Studies*, 29(8), pp. 1117–1138.
- Ward, P. M. & Peters, P. A. (2007) Self-help housing and informal homesteading in peri-urban America: Settlement identification using digital imagery and GIS, *Habitat International*, 31, pp. 205–218.
- Weinstein, L. (2008) Mumbai’s development mafias: Globalization, organized crime and land development, *International Journal of Urban and Regional Research*, 32(1), pp. 22–39.
- Wu, W. (2006) Migrant intra-urban residential mobility in urban China, *Housing Studies*, 21(5), pp. 745–765.
- Wu, F. L. (2015a) Emerging Chinese cities: Implications for global urban studies, *The Professional Geographer*. doi: <http://dx.doi.org/10.1080/00330124.2015.1099189>.
- Wu, F. L. (2015b) State dominance in urban redevelopment: Beyond gentrification in urban China, *Urban Affairs Review*. doi: <http://dx.doi.org/10.1177/1078087415612930>.
- Wu, F. L., Zhang, F. Z. & Webster, C. (2013) Informality and the development and demolition of urban villages in the Chinese Peri-urban Area, *Urban Studies*, 50(10), pp. 1919–1934.
- Zhang, L., Zhao, S. X. B. & Tian, J. P. (2003) Self-help in housing and chengzhongcun in China’s urbanization, *International Journal of Urban and Regional Research*, 27(4), pp. 912–937.
- Zhao, Y. & Webster, C. (2011) Land dispossession and enrichment in China’s suburban villages, *Urban Studies*, 48(3), pp. 529–551.
- Zheng, S. Q., Long, F. J., Fan, C. C. & Gu, Y. Z. (2009) Urban villages in China: A 2008 survey of migrant settlements in Beijing, *Eurasian Geography and Economics*, 50(4), pp. 425–446.