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**HOUSING SYSTEM AND
URBANIZATION IN THE
PEOPLE'S REPUBLIC OF CHINA**

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Abstract

This paper examines how transformations in the housing system in the People's Republic of China (PRC) influence the PRC pattern of urbanization. It first discusses how housing policies determine the supply and demand of housing in urban PRC and subsequently analyzes how the changes in the mode of housing provision have affected rural–urban migration, intercity labor mobility, the financing of urban infrastructure, and general urban economic activities in the PRC. The PRC experience of the interaction between the housing system and urbanization is unique, but it clearly indicates that an effective housing system that can responsively provide adequate and affordable housing is crucial to the success of inclusive and equitable urbanization.

JEL Classification: R30, R38

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1. INTRODUCTION

The transformations in the urban housing system of the People's Republic of China (PRC) over the last 3 decades are clearly the result of the PRC economic restructuring and the urbanization process. The changes in the housing system have contributed strongly to reshaping the mode of urbanization.

First, the removal of housing supply responsibility, including housing-related welfare, was a crucial step toward revitalizing the PRC's state-owned enterprises (SOEs) in the 1980s and 1990s (Wang, Wang, and Bramley 2005). Second, the transformation of urban housing from a welfare good to a commodity good greatly helped drive a consumption boom and economic prosperity in urban PRC (Man 2011). Further, an increasingly flexible housing market with responsive supply elasticity is a key force in propelling rural–urban population mobility as well as intercity labor mobility in the PRC. In addition, local state revenue from the sale of residential housing land has played a crucial role in financing the PRC cities' infrastructure investment since the 1998 reforms (Man 2011). As this paper will show, the great housing market boom in the PRC is not only a consequence but also a source of the PRC's great leap forward in urbanization in the new century. In short, the changing functions of state intervention in the PRC housing sector have yielded far-reaching impacts on the mode of urbanization. However, as a result of overemphasis on the economic functions of the housing sector, the PRC post-reform urban housing system has failed to meet general housing needs, especially those of rural-to-urban migrants. The rising housing affordability crisis in the urban areas has constituted a major threat to the future sustainability of urbanization in the PRC (Chen, Hao, and Stephens 2010).

Against this background, in the last few years, the PRC central government has prioritized addressing the housing affordability crisis in the urban areas in its political agenda (Chen, Yang, and Wang 2014). The main policy tool to achieve this goal is to supply low-income households with discounted public housing that is built and allocated by local governments (Shi, Chen, and Wang 2016). For example, the Ministry of Housing and Urban–Rural Development (MOHURD) recently announced that more than 36 million units of public housing had been constructed during the 12th Five-Year Plan period (2011–2015) (MOHURD 2016). Nonetheless, whether the increased emphasis on the public housing programs signals a complete shift of housing policy ideology in the PRC remains uncertain. Particularly, questions have been raised about how much of the giant program has served as a social policy tool to address true affordability problems and how much it has been used as an economic policy tool to offset economic downturn pressures (Shi, Chen, and Wang 2016). Regardless, what is evident is that the PRC has experienced continued drastic shifts of its housing system in both the pre-reform and post-reform eras. How the evolution of the housing system has affected the urbanization mode in the PRC has not yet been sufficiently investigated in the literature.

2. THE INSTITUTIONS OF THE HOUSING SYSTEM IN THE PEOPLE'S REPUBLIC OF CHINA

The PRC urban housing system can be divided into four principal periods (Chen and Han 2014): (i) the development of the socialist state welfare system from the late 1940s until 1978; (ii) the dual-track system until 1998, which included the mass privatization of state-owned and other forms of public housing during the reforms of the

1980s and 1990s; (iii) the market-dominated system between 1999 and 2006, which included the full-fledged development of the housing market and the marginalization of state provision; and finally (iv) the ongoing new dual regime, seeking to rebalance the state's and the market's roles in the provision of urban housing. This stage is mostly evidenced by the mass 36-million-unit public housing program implemented between 2011 and 2015. Although it is clear that the latest changes in the PRC's housing system have been initiated by the slogan of "everyone should be housed" (*zhu you suo ju*) adopted at the Communist Party's 17th National Congress in 2007, it is also widely believed that the new urbanization strategy that formally launched in 2013 is another key factor to drive these changes (World Bank and DRC 2013).

2.1 Housing Provision System: Pre-Reform and Reform Era

The Maoist urban housing system should be understood against of the development strategy of "industrialization without urbanization" in the Maoist era (Zhang 2000). The labor cost of urban workers was expected by the planning leaders to be much lower when the housing was provided under the state provision system than the market provision system (Wu 1996). Under the work-unit-based quasi-clan system, the population mobility across regions was also severely constrained by the integration of work and life. Thus, many important parts of social organization and labor production in Maoist urban PRC were built on the work-unit-based public housing provision system (Wu 1996).

The heavy dependence of housing construction on the state budget and centralized planning led to deteriorating housing conditions in Maoist urban PRC (Man 2011). The average floor space per capita in pre-reform urban PRC shrank between 1952 and 1978, dropping from 4.5 square meters (m²) to 3.6 m² (World Bank 1992). The severe shortage of housing space heavily constrained the expansion of the urban population in Maoist urban PRC. From 1949 to 1978, the urbanization rate achieved only marginal growth, from 10.64% to 17.92%.

Housing reforms in the PRC have three key components: lifting the rent to the maintenance level, selling work-unit-owned public rental housing stock to their sitting tenants, and allowing housing to be freely traded on the market. Essentially, the concept of urban housing has been converted from a "welfare good" to a "market good" (Wu 1996). For many reasons, the reform of the urban housing system did not achieve significant progress until the mid-1990s, but then the State Council, rather unexpectedly, terminated the welfare housing system in July 1998. Many researchers attribute this drastic change to the PRC government's wish to stimulate housing consumption and to use development of the housing industry as a key strategy to offset the economic downturn pressures of the 1997 Asian financial crisis (Man 2011). With employers no longer bound to provide housing to urban workers, the drastic restructuring of the urban housing provision system greatly facilitated rural–urban migration as well as intercity labor mobility.

2.2 The Housing Provision System: Post-Reform Era

Since the 1998 housing reform, the urban housing system in the PRC has evolved in pace with the progress of economic development and the urbanization process. While a market system of housing provision has been gradually evolving in this period, a two-tier public housing system was quickly formed in the first few years of the early 21st century.

The post-reform public housing system consists of two components: one is cheap rental housing, a small scheme that requires local governments to provide low-standard rental housing at a cheap price to meet the basic housing needs of the lowest-income urban households; the other is economic comfortable housing (ECH), a large program that requires local governments to supply housing for sale at heavily discounted price with an aim to boost homeownership among low-income urban households. To make prices affordable, the ECH scheme requires free land supply from local governments and capped profit of developers (Chen, Yang, and Wang 2014). In the landmark document of the 1998 housing reform (SC[1998] No. 23), the central government clearly stated that that ECH would be the major form of providing housing, to accommodate two-thirds of urban residents in the post-reform era. However, as ECH requires free land supply and implies significant land revenue loss for local governments, the construction plan of ECH was resisted by local governments everywhere and never implemented in full force. In 2003, in another landmark document of housing system development (SC[2003]No.18), the State Council formally downgraded ECH to play a residual role in the post-reform housing system. Since then, the proportion of ECH in the housing provision structure of urban PRC has dropped to a marginal share (Shi, Chen, and Wang 2016).

The market-oriented reform of the housing provision system paves the way for more freedom of labor mobility and rural-to-urban migration. It also spurred a housing market boom that has continued until now. However, housing prices have soared in all major cities since 2004, making home purchase affordability an acute issue for the nation's young generation (Chen, Hao, and Stephens 2010). The inflow of migrants has been severely constrained by the shortage of affordable housing in the cities. Meanwhile, the polarizing wealth across different classes due to different chances of accumulating assets through the housing market also posits another serious challenge to social stability.

Under the growing pressures of urban housing affordability, the PRC State Council published *Opinions on Tackling Housing Difficulties of Low-Income Families in Urban Areas* in August 2007 (SC[2007]No.24), which marked a fundamental change of housing policy in the post-reform urban PRC. The construction of public housing has been significantly expanded since then, and addressing the housing affordability crisis in the urban areas has formally become a significant political task. In early 2011, the 36-million-unit public housing construction plan for 2011–2015 was officially announced by the State Council. In the last few years, PRC leaders have repeatedly emphasized that the state provision of housing should be the key solution to meeting the basic housing needs of urban residents (Li 2011; Xi 2013).

2.3 Housing Policy Framework

Currently, the central government's Ministry of Housing and Urban–Rural Development (MOHURD) leads in designing and implementing the housing policy, with responsibilities ranging from housing market regulation to public housing development. Nonetheless, the land policy is under the control of the Ministry of Land and Resources, and the central bank—the People's Bank of [the People's Republic of] China—regulates all policies regarding housing finance. Under the strategic guidelines of relevant departments of the central authority, local housing bureaus provide public housing and regulate the local housing market. This is a hierarchical top-down policy framework that is consistent with the general characteristics of the PRC's centralized bureaucratic system.

The central government plays a pivotal role in the new housing policy framework, not only designing the policy aim and policy guidelines but sometimes even setting exact annual output targets for public housing provision for each province (MOHURD 2011). During the period of the 12th Five-Year Plan (2011–2015), MOHURD routinely checked the progress of public housing provision in cities by sending field investigators, and also regularly published the national progress of new constructions in public housing on its official website (MOHURD 2016). During this period, MOHURD also frequently threatened to punish local leaders who failed to meet the public housing output targets assigned by MOHURD through public censure, reduced funding, or even demotion (SCGO[2010] No. 4; SOGO[2011] No. 45).

3. THE PERFORMANCE OF THE HOUSING SECTOR IN THE PEOPLE'S REPUBLIC OF CHINA

Since the market became the predominant source of urban housing provision in 1998, the PRC has experienced one of the largest construction booms in human history. Housing development has also become more closely bound to economic growth and the urbanization process.

3.1 Housing Market

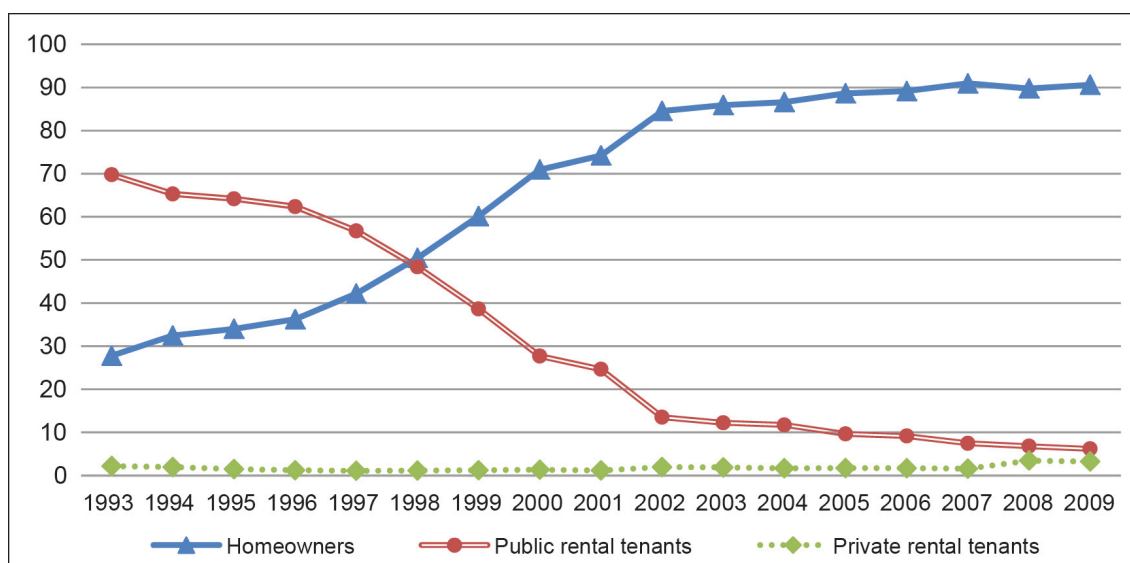
Obviously, economic prosperity and rapid urbanization are major forces to drive the recent housing market boom in the PRC (Chen and Han 2014). The strong upward trend of housing prices in urban PRC has generally been maintained since 1999, with only a few brief interruptions in 2009 and 2014. The national average commodity housing price in urban PRC rose from CNY1,854 per m² in 1998 to CNY6,472 per m² in 2015, roughly 250% growth within 18 years (NBSC 2016). It should be noted that the growth of housing prices was much faster in large cities in the PRC (Yang and Chen 2014).

Despite the fact that the PRC has experienced a continued economic boom over the same period, it has been found that the growth of household income could not fully explain the surge in housing prices in the cities, especially in the big cities (Chen and Han 2014). There are significant variations of housing affordability issues across regions and those areas with faster urbanization and larger inflows of migrants tend to have more acute housing affordability pressures. A recent empirical work finds that every 10% increase in the share of migrants in the local population growth in a city between 2000 and 2005 led to a 16.17% increase in housing prices in the city in 2005 (Lu, Chen, and Wu 2014). However, the study also finds that the contribution of migrants to housing price growth is primarily driven by high-income urban-to-urban migrants rather than low-income rural-to-urban migrants (Lu, Chen, and Wu 2014).

3.2 Housing Stock

The privatization of urban public housing stock was the key theme of the 1998 housing reform in urban PRC. Roughly 70% of total public housing stock, or 2.5 million m², was transferred from the government to their sitting tenants within a few years after the 1998 reform (Adams 2009). The privatization of public housing stock in the 1990s thus made the PRC the country with highest homeownership ratio in the world. Figure 1 depicts the drastic restructuring of housing tenure composition of urban residents in the PRC from 1993 to 2009, and a sharp drop of the public rental share and a rapid growth of homeownership ratio in this period, especially in the few years after 1998 (Figure 1). According to an official national survey, in 2011 about 90% of urban residents in the PRC owned their homes. About 40% of urban homeowners had purchased their homes from the market, 40% got their homes from the privatized public housing stock, and 10% had built their own homes or inherited private homes built before 1949 (NBSC 2011).

Figure 1: Housing Tenure Distribution Trend in Urban PRC (1993–2009)
(%)



PRC = People’s Republic of China.

Source: Author’s own calculation based on the Urban Household Survey compiled by the National Bureau of Statistics of [the People’s Republic of] China. The average housing conditions in urban the PRC have greatly improved since the 1998 housing reform. For example, the sixth national census (2010) data reveal that the total urban housing stock in the PRC increased 100% from 2000 (10.3 billion square meters [m²]) to 2010 (20.3 billion m²). Correspondingly, the average housing space per capita in urban PRC grew considerably, from 22.36 m² in 2000 to 30.33 m² in 2010 (Table 1). Nonetheless, the dividends of housing reform are not evenly spread across the regions and those big cities with large inflows of migrants are still subject to a high ratio of housing overcrowding (Zhang and Chen 2014).

Table 1: Housing Conditions in Urban PRC and Four Major Cities, 2000 and 2010

Region	Families (thousands)	Persons (thousands)	Room Numbers per Family	Housing Space per Person (m ²)	Housing- poor Ratio (%)	Housing- difficult Ratio (%)
2000						
PRC	131,298	408,814	2.39	22.36	11.6	39.0
Beijing	3,231	9,079	2.30	20.01	17.7	41.5
Tianjin	2,211	6,504	1.94	18.32	14.2	46.8
Chongqing	3,156	9,241	2.23	23.37	11.3	36.8
Shanghai	4,671	12,985	1.94	21.52	16.8	44.4
2010						
PRC	207,189	590,124	2.65	30.33	8.4	23.5
Beijing	5,803	13,966	2.09	28.23	14.6	32.0
Tianjin	2,876	7,7426	2.00	26.11	7.0	23.9
Chongqing	5,086	13,646	2.53	32.05	7.8	18.8
Shanghai	7,302	18,343	1.93	25.84	15.6	35.7

PRC = People's Republic of China.

Notes:

1. In the People's Republic of China statistical system, there are two types of households—family households and collective households (*jiti hu*), where many people share one *hukou* (household registration status) collectively. The data here refer only to family households; thus, the number of "persons" in the table is slightly less (ca. 10%) than the number of total persons reported in the census publications.

2. Housing-poor: families with housing space per person of less than 8 square meters; housing-difficult: families with housing space per person of less than 16 square meters.

Source: The fifth national census (2000) and sixth national census (2010) (National Bureau of Statistics of [the People's Republic of] China 2012).

4. INTERACTIONS BETWEEN THE HOUSING SYSTEM AND URBANIZATION

The rapid urbanization growth in the PRC in the last 2 decades has attracted worldwide attention (Lu and Wan 2014). However, few studies have examined the pivotal role of the housing system in the urbanization process in the PRC.

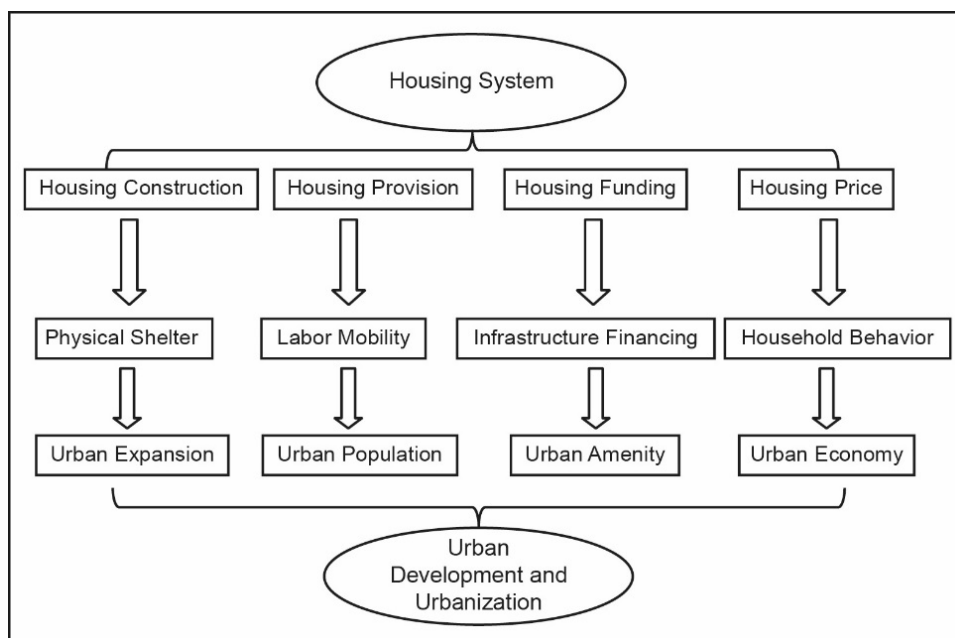
4.1 Housing and Urbanization: An Analytical Framework

The housing system can affect urban development and urbanization through several channels. We now discuss four major channels that link the housing system to urbanization (Figure 2).

First, the housing system affects the scale and structure of housing construction, which provides the most fundamental physical foundation to urban expansion (Mayer and Somerville 2000). Second, the housing system affects how the housing is produced and delivered to the labor force and their families, which directly determines the size and spatial allocation of the urban population. For example, the responsiveness of housing supply plays a crucial role in determining housing prices and then affects urban employment growth (Glaeser, Gyourko, and Saks 2006). There is evidence that, in areas with an inelastic housing supply, labor demand shocks can more easily translate into lower employment growth (Saks 2008). The elasticity of the housing supply can also be severely land constrained by geography and then contribute to reshaping the spatial distribution of the urban population and urban economy (Saiz 2010). Third, the funding of housing investment is highly integrated with the financing of

general urban infrastructure and urban public services, which underpins the formation of urban amenities and eventually affects the relative attractiveness of cities. Fourth, the housing system has a direct impact on the price movements of housing assets. Through household consumption or saving behavior (wealth effects), borrowing or lending behavior, and asset-building or asset-consuming behavior (reverse mortgage), the fluctuations in housing prices deeply affect the trend and business cycles of the urban economy.

Figure 2: Housing and Urbanization: The Connecting Channels



Source: Author.

4.2 Housing Market Developments as Driving Forces of Urbanization

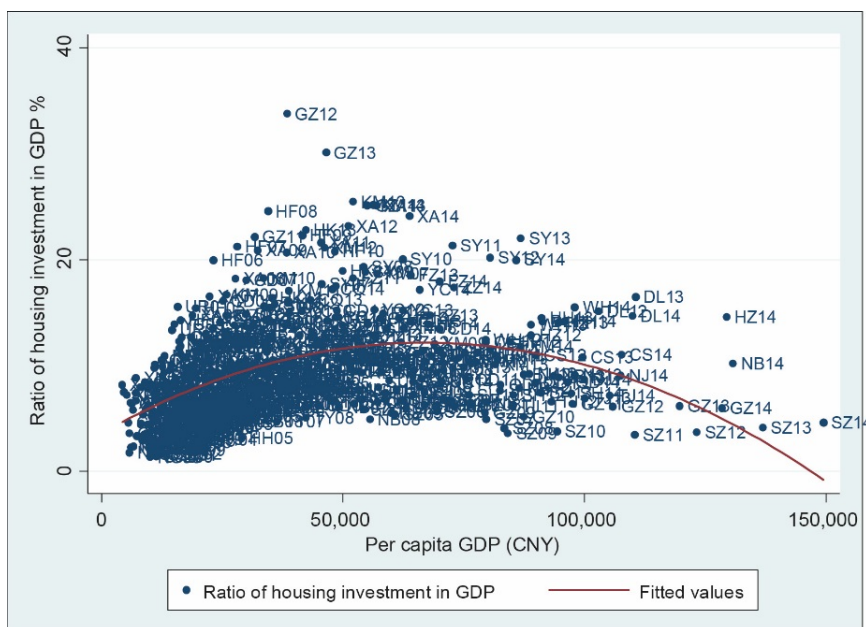
Research points out that the launch of the reforms of the PRC urban housing system in the 1980s–1990s was mainly driven by economic reasons (Wang, Wang, and Bramley 2005; Man 2011). For example, the PRC government has for decades used the development of a commercialized housing sector as a motor to drive the urban economy (Wang and Murie 1999).

4.3 Housing Investment as a Driving Force of the Urban Economy

By any standard, the housing sector has become a leading pillar industry in the PRC urban economy since the market-oriented reforms. Since the late 1990s, real estate investment has consistently accounted for about 10% of the PRC gross domestic product (GDP) (NBSC 2016). Several empirical works confirm that housing investment has played a pivotal role in the PRC economy (Chen, Guo, and Zhu 2011). In addition, some research also demonstrates that housing investment plays an active role in driving the PRC’s economic fluctuations (Chen, Guo, and Zhu 2011). However, the dependence of the local economy on real estate varies greatly across regions (Figure 3). For example, as predicted by previous research (Chen, Guo, and Zhu

2011), there clearly does exist an inverted U-shape in the relationship between the ratio of real estate investment in local GDP with respect to the level of local GDP per capita at the city level in urban PRC (Figure 3). This figure suggests that the importance of real estate investment in driving the PRC urban economy would gradually lose its momentum in the future.

Figure 3: Relationship between GDP per Capita and Ratio of Real Estate Investment in GDP in Urban PRC (City Level, 1999–2014)



GDP = gross domestic product, PRC = People’s Republic of China.

Source: Author’s calculation based on the data from the National Bureau of Statistics of [the People’s Republic of] China.

Data show that the real estate industry alone created 2.73 million jobs in 2012, which was 1.53 million higher than in 2003 (NBSC 2013). The construction industry is perhaps the industry that benefited most from the housing market boom. Most jobs in the PRC construction industry are taken up by rural-to-urban migrants. According to an official national survey (NBSC 2014), 22% of rural migrant workers, or about 59.7 million, had jobs in construction.

4.4 Property-Led Urban Redevelopment

The marketization of housing provision has led to great transformations in urban regeneration and redevelopment in PRC cities. Since the early 1990s, urban redevelopment has been largely privately funded and property-led rather than driven by the government (Shin 2009). In urban PRC, property-led urban redevelopment functions as “a growth machine” as well as a key fiscal revenue generator for city governments (He and Wu 2005).

Driven by diverse motivations of different levels of the entrepreneurial state as well as the profit-seeking motivations of investors, pro-growth coalitions between local governments, developers, and government enterprises are formed and exert powerful influence on urban redevelopment (He and Wu 2005). Property-led urban redevelopment usually involves more than demolition of dilapidated houses in the old urban communities and relocating homeowners of expropriated homes. The central focus of property-led urban redevelopment is to restructure the spatial pattern of land use in the city so that local municipal governments can obtain substantial land revenues to boost the city’s economic prosperity. Thus, it has been argued that urban redevelopment in the PRC is essentially state-sponsored property development as a

means of urban growth promotion (He and Wu 2005). Such urban redevelopment often creates prestigious urban space that expels existing communities.

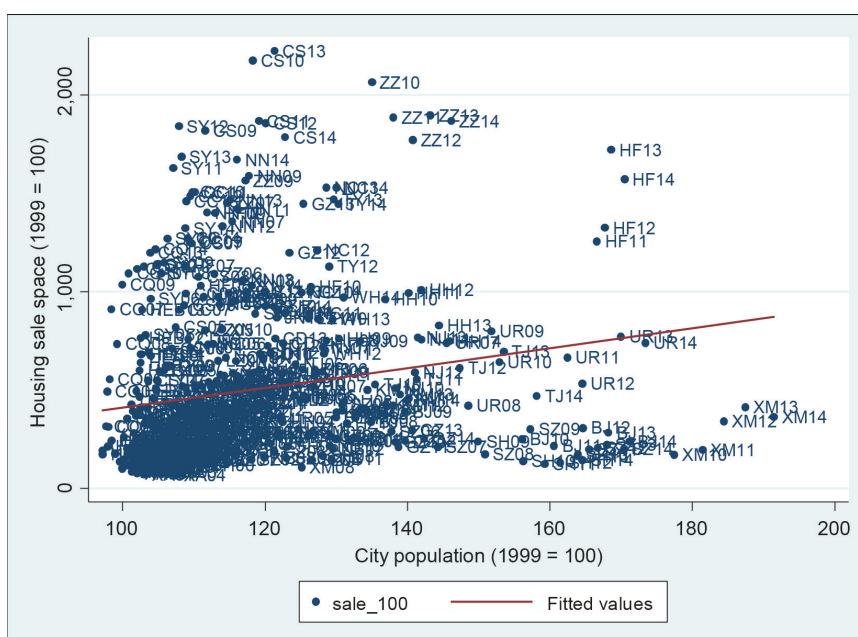
4.5 Housing Supply as a Supporting Apparatus of Urban Expansion

Labor mobility across regions and between rural and urban areas in the PRC has been greatly liberalized since the 1998 housing reform. Empirical research suggests that the availability of sufficient affordable housing in cities is a key factor affecting interprovincial migration in urban PRC (Man 2011). Several recent empirical works also suggest that the expansion of the urban labor force is highly positively correlated with the growth of the local housing supply in the PRC (Chen and Han 2014). Figure 4 also confirms a positive correlation between the local population and housing sale space at the city level in the post-reform urban PRC.

4.6 Housing Capitalization as a Financial Engine of Urban Development

Encouraging private ownership of housing is a key pillar in the PRC economic transition (World Bank 1992). In a fast-growing economy, the commoditization and capitalization of urban housing makes it easy for the housing sector to attract speculative funding. Then, housing inevitably becomes an attractive source of investment (Chen 2011). At the end of 2013, about 21% of banking loans in the PRC were issued to the real estate sector, with 13.6% going to home mortgages and 6.4% going to loans for property and land development. The ratio of the outstanding balance of home mortgages as a percentage of GDP rose from 1.41% in 1999 to 17.23% at the end of 2013 (People’s Bank of [the People’s Republic of] China 2014).

Figure 4: Housing Sale Space and Urban Population (City-Level Observations, 1999–2014)



Source: Author’s calculation based on data from the National Bureau of Statistics of [the People’s Republic of] China.

Under the unique urban land system in the PRC where the local states hold a full monopoly over urban land, the capitalization of urban housing leads to the capitalization of urban land. To be more specific, with a booming housing market, local states can both receive enormous amounts of direct funding through land sale revenue and use high-valued land as collateral to borrow loans from banks (Tao et al. 2010). Statistical data suggest that the land sale revenue in the PRC has grown at a spectacular speed since the early 21st century and currently stands at approximately CNY3 trillion–CNY4 trillion, accounting for roughly one-third of local states' total income. In contrast, through local government-backed investment units, the debt that the PRC local states have a responsibility to repay reached the substantial amount of CNY1 trillion in June 2013, and about 37% of such debts are pledged on future expected land sale revenue (National Audit Office 2013).

Supported by funding from these sources, the entrepreneurial local states fiercely compete for profitable industrial investment on a global scope by either providing subsidies and tax incentives or enhancing urban amenities through large investments in local urban infrastructure (Wang et al. 2011). For example, according to the audit results report published by the National Audit Office, 86.8% of the funds that the local states borrowed through their investment units were invested in urban infrastructure or the improvement of urban amenities (National Audit Office 2013). Thus, land-based financing of urban development has been identified as the most significant feature of the PRC's urbanization.

4.7 Housing Market Development as a Constraint to Urbanization

The housing market boom since the abolishment of the welfare urban housing system in 1998 greatly contributes to boosting labor mobility and economic prosperity in urban PRC. Nonetheless, the soaring price of urban housing is making decent homes in the cities unaffordable to younger adults, especially for young migrant workers (Shi, Chen, and Wang 2016). This growing housing affordability crisis has been widely regarded as a major threat to both social stability and the future potential of urbanization in the PRC (Yang and Chen 2014).

4.8 Housing-Based Social Stratification

It has been noted that the PRC is “the only large country ... to urbanize without the creation of large slum areas or informal settlements” (UN-HABITAT 2003). This achievement should be qualified because it refers to a period before half the population lived in urban areas and is in any case not attributable to the housing system alone.

Since the socialist economic period, there has clearly been an emphatic shift from the state to the market in the provision of housing welfare (Wang et al. 2012). However, the state remains the ultimate source of housing welfare for a large minority of the urban population benefiting from the state legacy welfare implied by discounted privatization. Beneath the tiers of marketized, subsidized, and social housing remains a fourth tier associated with the migrant population.

The post-reform housing system thus exhibits at least three insider–outsider divides. First, there is a clear insider–outsider divide between households protected from the market and those who have to enter it paying market prices or rents (Huang and Jiang 2009). A second divide reflects the combined impact of the growth in income inequality and rising house prices under the marketization process—a growing wealth gap is emerging between those who can afford to purchase multiple properties and those who

cannot afford to purchase at all, so housing perpetuates inequality (Li 2012). The third divide is between the permanent and migrant population, whose housing options are quite different.

Meanwhile, regional inequality in housing is a salient feature of housing development in the post-reform PRC. At the household level, the inequality of housing in urban PRC has continued to rise since the marketization of housing provision. A recent empirical investigation shows that the Gini coefficient of housing space per person in Shanghai was more than 0.5 in 2010, significantly higher than that in 2000 (Zhang and Chen 2014).

4.9 Problems of Migrants in Local Housing Markets

Although the urbanization process in the PRC has grown rapidly in the last 2 decades, the mobility of migrants is still heavily constrained by many institutional barriers. The most-cited institutional barrier to migration is the *hukou* system, which was introduced in 1958 and remains in force (Lu and Wan 2014). The *hukou* system is essentially an integration of the urban registration system and the local welfare system, where only residents who have obtained local *hukou* can access the local welfare system including pension, health care, housing benefits, elementary education, and other public services. As migrants are partly or completely excluded from the local welfare system, under the *hukou* system their mobility is severely constrained. In many situations, young migrants have to work alone in the cities, leaving their family members and particularly school-age children in the hometowns (PFPC 2012). The *hukou* system has also been constantly noted as a major constraint in the housing consumption of migrants. A recent investigation based on 2010 census data reveals substantial disparities in housing conditions across residents with different *hukou* statuses in Shanghai; for example, the mean housing space per person was 29.44 m² among Shanghai natives in 2010, but only 14.68 m² for migrants (Zhang and Chen 2015). The gap is still substantial even after adjusting for differences in human capital (Zhang and Chen 2015). According to an official national survey, in 2010 only 10% of migrants owned homes in the host cities (PFPC 2012). The PRC migrants' housing problem was deepening rather than alleviating in the early 21st century (Zhang and Chen 2014).

Several micro studies show that migrants in major cities are not spatially well integrated with local residents (Chen and Hao 2014). They generally live outside the expensive downtown area and cluster heavily in the cheaper suburban areas, which offer low-skilled job opportunities and informal housing accommodation solutions. For example, in 2010, the dissimilarity index between migrants and local residents in Shanghai was measured to be between 0.3373 and 0.4562, depending on the scale of the community (Chen and Hao 2014). These measurements are much higher than what was found for the same city in 2000 (Li and Wu 2008), indicating a large growth in residential segregation in Shanghai since the market-oriented development of housing provision. The rise of *hukou*-based residential segregation is not only due to a self-sorting market equilibrium but is also a result of discriminating institutional forces because the migrants are constrained in their housing choices under the *hukou* system (Chen and Hao 2014). This is a strong indicator that the PRC mode of urbanization is neither pro-poor nor inclusive.

5. CONCLUDING REMARKS

Over the last 2 decades, the PRC urban housing system has shifted rapidly from a state-dominated system to one in which market-like mechanisms are playing growing roles in the production and consumption of urban housing. The PRC's market-oriented reforms of housing provision also spurred the drastic transformations of the local spatial landscapes in the cities (Man 2011). In particular, with urban residents' increased access to housing from the market rather than from work units, their labor mobility patterns, job–housing links, and transport modes and commuting behavior have all greatly changed (Chen and Han 2014). From this perspective, the transformation of the housing system is key to understanding the urbanization process.

However, although the housing market boom helps to boost economic prosperity in the urban PRC, the soaring urban commodity housing prices are making decent homes in the cities increasingly unaffordable for the new generation, especially for young migrant workers (Shi, Chen, and Wang 2016). The growing housing affordability crisis has become a serious threat to the future prospects for urbanization in the PRC (Yang and Chen 2014). The mobility of rural-to-urban migrants has been heavily constrained by the lack of affordable housing in the cities, thus leading to insufficient agglomeration of big cities in the urban PRC (Lu and Wan 2014). Meanwhile, the rapidly growing middle class is a key driving force of the economic development and socioeconomic transitions in the PRC over the last 2 decades (ADB 2010). A significant portion of the PRC emerging middle class in the urban areas consists of the young educated groups that are flowing into large cities from small cities. This group has been playing active roles in both economic production and social life in the urban PRC. The PRC state has found it politically important to address the pressing need to meet the housing needs of the new middle class (Li 2011; Xi 2013).

Thus, since 2008, by launching a series of massive construction plans for public housing, the PRC state has again reasserted its role in the provision of urban housing and clearly intends to do so in ways that will shape the whole housing system for decades to come. However, there is no evidence that the new massive public housing program represents a reversion to the type of state socialist system that operated before 1998 (Chen, Stephens, and Man 2014). The 2011–2015 mass public housing program should be interpreted as a key component of the new urbanization strategy adopted by the new PRC leadership in 2013 (Li 2011). It should also be noted that the new mode of providing urban public housing is heavily influenced by the political, fiscal, financial, and land ownership structure (Naughton 2010; Wang et al. 2012) in the PRC.

The changing guiding ideology of the PRC political governance is the starting point to a better understanding of the complex market–state relationship in the PRC post-reform urban housing system (Chen, Yang, and Wang 2014). Under the growing dominance of the market in the economic transition, the dilution and erosion of the state's power is unavoidable. Nonetheless, in any market economy, the functioning of market mechanisms in the housing sector is highly sensitive to how the state addresses the strengths and weakness of the market institutions. For example, the performance of the housing market since 2010 has been largely influenced by the central government's policy package to cool the property sector, including the quota restriction for home purchasing and harsh terms for mortgage borrowing (Chen and Han 2014). Some scholars have interpreted the swift responses of the PRC's housing policy to internal and external economic shocks as evidence of a contingent type of neoliberalism (Wang et al. 2012). Nonetheless, it is evident that in the urban housing sector, the PRC state has continued to assume the role of “builder of the market.”

The PRC state's greater reliance on the supply-side approach to address the housing affordability issue should be understood under the specific political and economic institutions of land and housing provision in the PRC. On one hand, since the outbreak of the 2008/2009 global financial crisis, the PRC government has expanded to take more direct control of resource allocation in key economic sectors and social affairs, which the PRC state deems necessary to assure its economic stability and political safety (Naughton 2010). Thus, the PRC state not only frequently intervenes in the functioning of the urban housing market but also prefers to be a dominant player in the provision system of urban housing. Particularly, the PRC state's full monopoly of urban land makes it attractive for local government to deliver low-cost public housing directly (Wang and Murie 2011). Nonetheless, in practice the local governments usually work together with state-owned or private developers in supplying public housing. The central difference between the new public housing in the post-reform era and the old public housing in the pre-reform era is that the former is no longer affiliated with the work unit and thus it is public welfare rather than work-unit-based welfare. However, whether the recent revival of public housing has really helped to correct some negative externalities and inefficiencies embedded in the PRC's post-reform housing system remains an open question for future research.

In summary, the PRC has a unique experience regarding the interaction between the evolution of its housing system and its urbanization mode but there are general lessons that we can draw from this experience. First, it clearly shows that the sufficient supply of affordable housing in the cities is central to the success of urbanization. Further, it is challenging to balance different policy targets resting on the housing policy, and the state must fully understand the trade-offs behind different policy options. Third, to guarantee housing affordability, access to affordable housing should be protected not only by government movements but also by laws. Thus, the UN-honored concept of "housing rights" in which adequate housing is considered a basic human right should be promoted universally (UN-HCHR 2009). Fourth, an effective and efficient housing finance system is the basic foundation of an affordable housing system, especially for young migrants.

Overall, in the last 2 decades, the PRC has achieved some success in adapting its housing system mode to support its economic and social development strategy. However, with growing pressures over housing affordability and housing bubbles in the cities, the PRC government faces the big challenge of further modifying its housing system to assure the sustainability of urbanization and to boost inclusive urbanization. Many future investigations are called for.

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