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Housing wealth inequality in urban China: the transition from welfare allocation to market differentiation

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Abstract

The differentiation of housing assets is an important embodiment of wealth inequality and is also an important dimension of social stratification. The housing distribution in China has experienced a transition from welfare allocation to market distribution over the decades. This process has led to a change in the housing stratification mechanism and widened housing wealth inequality, which has evoked theoretical disputes about “market transition,” “power persistence,” and “power derivation.” Based on the 2017 Chinese Social Survey (CSS), this article examines the housing wealth inequality in urban China and probes the major drivers of housing stratification. The results suggest that with the progress of housing marketization, market mechanisms have replaced the original socialist redistribution mechanisms and have become the major drivers of housing wealth inequality. However, some of the original socialist institutional arrangements continue to have strong effects on housing wealth inequality. The persisting institutional effect may provide a new perspective for exploring housing wealth inequality in contemporary urban China.

Keywords: Housing wealth inequality, Market transition, Institutional effect

Introduction

In recent years, wealth inequality has attracted increasing attention in the study of social stratification. Since housing wealth is one of the most important forms of wealth, housing wealth inequality has also become a dimension of social stratification. Due to the market-oriented housing reform, land finance policies, and fanatical investment, the urban real estate market in China is booming, and the housing prices in big cities are continuously surging upward. The high price of housing has impacted the economic life of urban residents in various aspects. First, housing assets play an increasingly important role in family wealth. According to the China Household Wealth Survey Report 2019, housing property accounts for 71.35% of the family wealth in urban areas.¹ The increase in the importance of housing wealth draws our attention to the effect of housing on social stratification. Second, the rise in house prices has

¹Source: “China Household Wealth Survey Report 2019” by the China Economic Trends Research Institute, Economic Daily.

intensified the appreciation of housing wealth. For the group owning houses, their wealth increases as house prices and rents rise, while the group owning no houses can only rent houses to address the residential needs, and high rent further consumes their wealth. As a result, the original difference in the housing resources between the two groups is widening, the wealth gap between the households with more and less real estate investments is exponentially widening, and the wealth inequality is becoming further aggravated. Therefore, it is of great significance for the study of wealth inequality to discuss the factors triggering the current urban housing stratification and the internal mechanism.

The marketization of housing resource allocation

In the past few decades, the housing distribution mechanism in China has undergone fundamental changes. The distribution of housing resources has gone through a transition from planned welfare allocation to widespread market distribution. China's urban housing supply system was mainly government-planned welfare allocation based on the work-unit system gradually established since the 1950s. Under this housing allocation system, the work units or the bureau of housing management in the government allocated housing to employees as welfare according to their cadre ranking, occupation grade, seniority, marital status, and household size (Huang and Clark 2002; Wang and Murie 2000; Bian et al. 1996). Workers only had the right to live in the houses while the ownership of the houses belonged to the work unit or the state. Although this system of housing allocation was based on welfare to a certain extent and was somewhat egalitarian, it inevitably led to housing stratification and inequality. First, party membership, job position, technical title, and seniority affected the housing standards to which employees could apply (Bian et al. 1996; Logan et al. 1999; Logan et al. 2009); second, there was also inequality in the housing supply between different sizes and administrative levels of work units, and some small units could not provide housing for their employees (Lee 1988; Wu 1996). During this period, the housing supply for urban residents was mainly based on the hierarchical structure of the employees inside the work units and between work units, which shaped the housing stratification in urban China at that time.

At the end of the 1970s, China started market-oriented reform of the housing system (hereinafter referred to as housing reform), gradually shifting the main housing supply from the state to the market (Zhu 2007:16–17) and accomplishing the commodification of housing and the monetization of housing distribution (Wang and Murie 1996; Huang and Clark 2002). China adopted a gradualistic approach to the housing reform, i.e., “new method for new houses and old methods for old houses.” “New method for new houses” meant allowing for private houses to be built independently from or with preferential loans granted by the government, including encouraging foreign businesses and real estate enterprises to develop houses as commodities and for new houses to be traded according to market rules (Zhang et al. 1998: 47); “old methods for old houses” referred to selling the original work-unit-owned or state-owned welfare housing to the residents living in the houses at affordable prices (General Office of the State Council 1988). This reform was a long, gradual, and controversial process with a large amount of pilot work (Gu and Li 1998; Wei 2014). It was not until 1998 that a radical approach was adopted nationwide, terminating all kinds of welfare housing allocation (Cheng

1999:12). In 2000, the sale of the original work-unit-owned and state-owned housing was halted (these houses were called public houses, most of which have already been sold to residents at affordable prices). The marketization of the housing distribution was fully implemented (Wu 2017).

This housing reform strategy resulted in the parallel development of the public housing market and the commercial housing market (Gu and Li 1998; Huang 2001; Wei 2014). Workers who formerly enjoyed housing welfare were able to obtain public housing at a low price while those who did not initially enjoy housing welfare could only purchase houses at a much higher price on the commercial housing market. After the housing reform was completed, those who obtained public housing took an advantageous position in the housing wealth distribution, especially those administrative elites in the state sector who usually obtained larger or more public houses than ordinary employees. Therefore, the sale of public houses at the early stage of the housing reform is considered as the starting point for the housing wealth inequality and stratification among urban residents during the market-oriented housing reform in China (Wang 2003).

Since 2000, with the termination of the welfare housing allocation policy, the commercial housing market has developed rapidly. Meanwhile, the rapid economic growth, the soaring urbanization, and the booming financial industry not only promoted the rapid development of the real estate market but also led to soaring commercial housing prices and the doubling of the real estate value. Investment in real estate has become the most important means for Chinese households to increase their wealth and has also become the core indicator of wealth differentiation and economic stratification.

It should be noted that despite the rapid development of the urban real estate market, there was no real estate market in the vast rural areas. The government did not open up the rural real estate market for transactions, and rural houses could not be sold or purchased with lawful property rights. Except for the rural houses in the suburban areas that may be demolished due to urban expansion, thus bringing about compensation, the vast majority of rural houses had no market value. Recently, even when the rural housing market begins to form because a large number of rural people have moved to cities and towns, housing prices are too low and even reach zero in some places. Therefore, housing stratification and its significance for wealth differentiation are mainly manifested in urban areas, and so this study focuses on housing wealth inequality in urban areas.

Theoretical debate on Chinese housing reform

What housing stratification mechanisms have taken place during the transition from welfare housing allocation to marketization? Does the housing distribution mechanism under the work-unit system remain in the market-oriented reform? Conversely, has the market mechanism completely replaced the original distribution mechanism? Do the administrative elites in the state sector (the group in the commanding position in the dominant work units) still enjoy advantages in the housing distribution? The existing literature on these issues developed three theoretical hypotheses: the “market transition theory,” “power persistence effect,” and “power derivation effect.”

The market transition theory was initially proposed by Szelenyi (Szelenyi 1978, 1987) in his discussion on the relationship between “market” and “redistribution” systems. Szelenyi believed that the “market” and “redistribution” as two kinds of economic integration systems will generate different interactions due to the different social and economic institutions they are in, thus causing different impacts on social stratification and inequality. In capitalist welfare countries, the market, as the dominant economic integration system, is the primary root cause of social stratification and class differentiation. On this basis, the introduction of a national redistribution mechanism can reduce the inequality caused by market factors. In the socialist planned economic system, redistribution, as the dominant social distribution system, is the root cause of social stratification and inequality. The social stratification mechanism in the redistribution system is that resources are distributed according to people’s positions in the work units and the location of the work unit in the administrative hierarchy of the state system, which leads to housing inequality between groups in and out of the state sector and at different positions of the administrative hierarchy. If market mechanisms are introduced into this redistribution system, resources can be opened to groups outside the state sector and at low positions in the administrative hierarchy through market channels, and the inequality caused by the redistribution can be alleviated to some extent (Szelenyi 1978). In this case, the market-oriented housing reform will eliminate the existing housing inequality caused by the original welfare housing allocation.

Hegedus’ research challenged Szelenyi’s theory. In his research on the housing problem in Hungary in the 1980s, Hegedus found that even after the market-oriented housing reform, the elites still enjoy housing resources with a welfare nature in the redistribution. Rather than weakening the original inequality, on the contrary, market intervention manifests and even worsens the inequality with monetization (Hegedus 1987). In response to Hegedus, Szelenyi further explained his theory: the market itself is not more equal than the redistribution mechanism, and the market under the socialist system is only the secondary mechanism. With the expansion of the market itself, the market will no longer play a role in weakening inequality (Szelenyi 1989).

Cai and Huang (2013) summarized the relationship between the market and redistribution as proposed by Szelenyi as “parallel, without penetration;” that is, assuming that the market and redistribution are two parallel mechanisms, they, with a distinct boundary between them, function independently in their respective fields (Liu 2004). Along the line of thought, the discussion of the changes in the stratification mechanism in China’s market transition gradually focuses on the debate between “market transition theory” and “power persistence theory.” “Market transition theory” holds that market transition has shifted the distribution power from the state to the market, increasing the returns on human capital and entrepreneurial ability while decreasing the returns on political power. Through the market-centered hierarchical mechanism, the distribution of social resources will gradually shift to the technical elites and the economic elites (Nee 1989).

However, the “power persistence theory” points out that market-oriented reform in China cannot eliminate the legacy of the redistribution mechanism. The market and redistribution play a joint role in social stratification. While the return on human capital increases, the original political elites are still in a dominant position in the resource distribution (Bian and Logan 1996; Parish and Michelson 1996; Walder 1996; Gerber and

Hout 1998; Zhou 2000; Bian and Zhang 2002). The “power persistence theory” holds that even when houses are commodified, some work units in the state sector can still use power and policy opportunities to provide housing benefits to employees. The principle of the “differential benefit pattern” still works; the higher the administrative level is, the closer it is to the core of the state sector, and the more housing benefits one can obtain (Cai and Huang 2013; Wu 2017).

Some scholars also put forward a “power derivation theory.” Under the particular social and economic conditions in China, the market is embedded in the bureaucratic authority structure, and administrative power will derive a rent-seeking ability under the catalysis of the market mechanism. In terms of the housing market, administrative elites exploit policy loopholes through administrative privileges and obtain housing resources in the market, such as raising funds to build houses against regulations and occupying affordable housing (Hu 2012; Cai and Huang 2013; Fang 2014). In addition, thanks to the policy on sales based on the housing reform, the administrative elites “inherently” enjoy the most advantageous housing resources at the beginning of the housing reform. With the rise of housing prices, this house value has multiplied, thus enabling the administrative elites to have stronger market abilities to purchase and invest in housing. Of course, this scenario is only applicable to political elites who took advantage of the house sales in the early reform.

The theoretical debate on the relationship between the market and the redistribution mechanism in the process of market-oriented reform in China has been the theoretical starting point for studying housing stratification in China. Many studies have explored the evolution of the housing stratification mechanism in the context of the market transition from those theoretical perspectives. This study uses data from the 2017 Chinese Social Survey to explore the current situation and mechanism of urban housing inequality in China and to address the above theoretical debate.

Data, methods, and variables

The data of this study are drawn from the 2017 Chinese Social Survey (CSS). CSS is a nationwide, comprehensive survey project conducted by the Institute of Sociology at the Chinese Academy of Social Sciences. The 2017 CSS survey covers 31 provinces/autonomous regions/centrally administered municipalities, 151 counties (districts), and 604 residential (village) communities. The respondents of the survey are Chinese citizens aged 18–70, and the sample size is 10,091. In this study, 5165 urban residents aged 25–69 were selected for the analysis.

The survey asked the respondents about the market value of all house property owned by their families. In this study, the market value of a family’s house property (housing wealth) is taken as the dependent variable, and a series of nested regression models are used to estimate the market mechanism effect, the power persistence effect, and the power derivation effect on housing wealth. The independent variables include three groups. The first is the demographic variables: gender, age, family size, and marital status. The second is the socioeconomic status variables: annual household income, years of schooling, and occupational status (managerial, professional, and technical, clerk, self-employed, and blue-collar

workers). The third is the institutional arrangement variables: city administrative level (direct-administered municipalities,² provincial capital, other cities, and towns), *Hukou* status³ (urban *hukou* and rural *hukou*), and the state sector. Table 1 lists the descriptive statistics of these variables.

The demographic variables are the control variables in the models. In addition to gender and age, family size and marital status should also be considered as control variables because these factors may affect the housing investment. The three variables of socioeconomic status (household income, years of schooling, and occupational status) represent economic capital, human capital, and class status, which are central in the market mechanism leading to housing stratification. Institutional arrangement variables—city administrative level, *hukou* status, and state sector—were the critical factors in the original socialist redistribution mechanism which affected housing stratification. The effects of socioeconomic status variables on housing stratification are used to test the market transaction theory. The effects of institutional arrangement variables are used to test the power persistence theory, and an interactive variable—the administrative elite (managerial personnel in the state sector)—is included to test the power derivation theory.

Results and the data analysis

Growth of family housing wealth and inequality

According to the CSS data in 2017, 92.9% of urban residents aged 25–69 owned house property (including rural houses⁴) in 2017, of which 39.6% purchased it from the market (35.9% commercial houses and 3.7% limited property houses), 8.3% purchased affordable housing (5.9% purchased original public housing, and 2.4% purchased affordable housing), and 45% had self-built houses. However, in 1988, only 13.7% of urban residents aged 25–69 owned house property, and the average family housing wealth was tiny. Most urban families (84.5%) lived in public housing at that time. In 1995, when the housing reform was advanced rapidly, and the real estate market was in its infancy, the housing property ownership rate of urban residents aged 25–69 increased dramatically to 42% with the privatization of public housing, but more than half of urban families (56.6%) still lived in public buildings. Among the urban families having housing property, the vast majority purchased public housing (28.8%), a few purchased commercial housing (2.3%), and a few had self-built (6.6%) or inherited houses (4.3%). Since 2000, with the end of the welfare housing allocation and the rapid development of the housing market, the homeownership rate and family housing wealth have grown dramatically. The housing wealth of urban residents in China has been multiplied by tens of times. In 1995, the average family housing wealth was only 17,000 yuan; in 2017, it had increased by 37 times to 635,600 yuan. The homeownership rate also doubled from 42% in 1995 to 92.9% in 2017. In the period, the composition of the

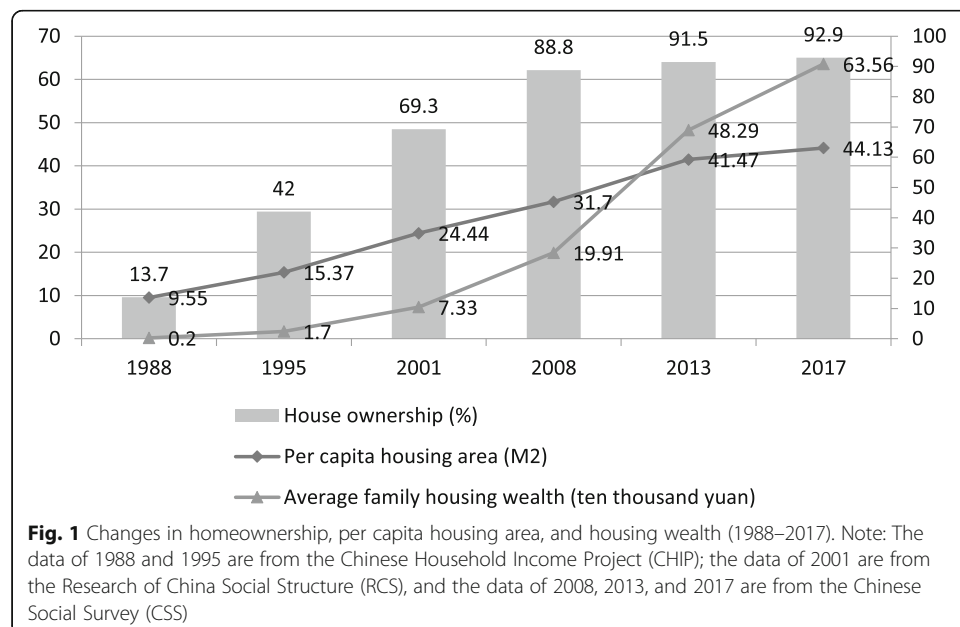
²The centrally administered municipalities (Beijing, Shanghai, Tianjin, and Chongqing) are directly under the jurisdiction of the Central Government and usually have an advantageous place in the resource distribution of the state. In the administrative hierarchy of Chinese cities, the centrally administered municipalities occupy the highest administrative level, and provincial capitals take the second place.

³*Hukou* is a kind of household registration system, which classifies Chinese citizens into two groups, urban *hukou* and rural *hukou*. Urban *hukou* is associated with more welfare, benefits, and public service from the state than rural *hukou*.

⁴Most of the migrant population from rural areas to cities and towns has self-built houses in their hometown villages.

Table 1 Descriptive statistics of variables (2017, urban residents, *N* = 5,165)

Variables		Type	Percentage	Mean	Standard deviation
Dependent variables	Household wealth (10,000 yuan)	Continuous	–	63.53	113.39
Demographic variables	Gender (male)	Nominal	50.6	–	–
	Age (years)	Continuous	–	44	12.28
	Family size (number of people in a family)	Continuous	–	4	1.68
Socioeconomic status variables	Marital status (married)	Nominal	85.2	–	–
	Annual household income (1000 yuan)	Continuous	–	80.29	96.56
	Years of schooling	Continuous	–	9.74	4.08
	Managerial personnel	Nominal	4.2	–	–
	Professionals and technicians	Nominal	12.0	–	–
	Clerks	Nominal	12.2	–	–
	Self-employed	Nominal	17.1	–	–
Institutional arrangement variables	Blue-collar workers and farmers	Nominal	54.5	–	–
	Centrally administered municipalities	Nominal	4.3	–	–
	Provincial capitals	Nominal	6.1	–	–
	Other cities	Nominal	15.9	–	–
	County, town, and rural areas	Nominal	73.7	–	–
	<i>Hukou</i> status (urban)	Nominal	46.6	–	–
	State sector	Nominal	16.4	–	–



housing property rights of urban households has undergone a fundamental change. In addition, the residential condition of urban families improved substantially, and the per capita housing area nearly tripled from 1995 to 2017 (Fig. 1).

The growth of family housing wealth has also brought about a rising housing wealth inequality. In 1988 and 1995, most urban families did not have any housing wealth, and the private houses were worthless because of the meager prices for both commercial and public houses. The housing wealth inequality was not prominent during the period. However, in 2017, the family-based housing wealth inequality became salient. Figure 2 lists the average family housing wealth of the housing wealth quintiles as well as the top 10%, the top 5%, and the top 1%. The average family housing wealth of the top 20% group is 63 times as large as that of the bottom 20% group, and the average family housing wealth of the top 10%, the top 5%, and the top 1% is respectively 99, 133, and 253 times as large as that of the bottom 20%. The top 20% holds 65.2% of the total housing wealth, while the bottom 20% only shares 1%. The housing wealth shares of the top 10%, the top 5%, and the top 1% are respectively 51%, 34%, and 13%. Actually, most families in the bottom 20% and the lower 20% cannot afford to buy a house or apartment in the cities in which they live and work. They usually only have very cheap houses in their hometown villages, while more than half of the top 20% have two or more houses in cities.

Besides, Fig. 2 also shows the correlation between housing wealth and income. The top 20% of the housing wealth has much higher family per capita income than the bottom 20% and the lower 20% by nearly three times. The family per capita income of the top 1% is six times as much as the bottom 20% and the lower 20%.

Housing wealth inequality between groups

Various factors are driving the rising housing wealth inequality, which made different groups benefit differently from the housing marketization process. In Table 2, the housing wealth of different groups is compared. The data show that housing wealth varies greatly according to income, education, occupation, the administrative level of cities,

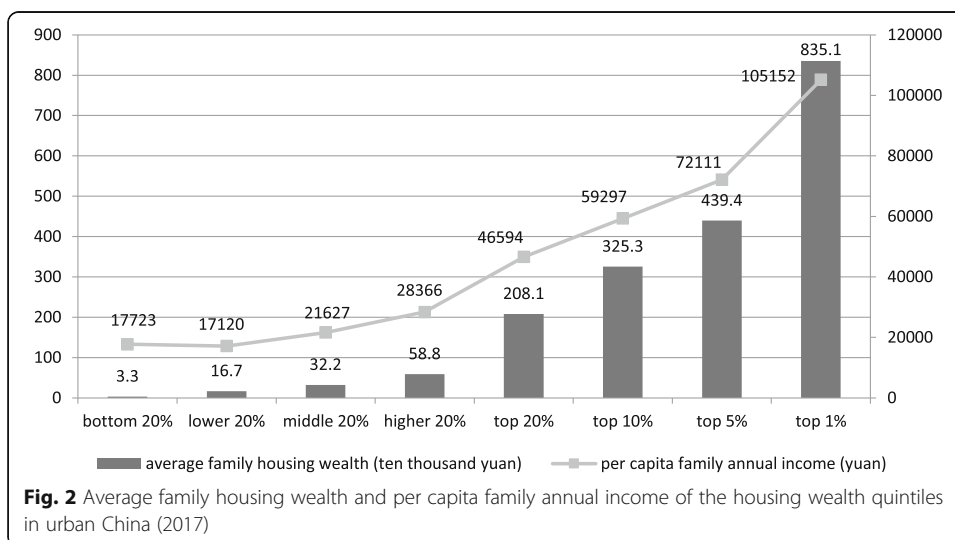


Table 2 Analysis on the difference of average housing wealth owned by different groups (2017, urban areas, $N = 5165$)

	Group classification	Average housing wealth (10,000 yuan)
Household income	Low-income group	27.92
	Middle-income group	48.87
	High-income group	123.92
Education	Untaught	35.23
	Primary school	36.42
	Junior high school	45.66
	Senior high school	66.56
	College and university	118.48
Occupation	Managerial personnel	153.93
	<i>Managerial personnel in the state sector</i>	132.66
	Professionals and technicians	97.49
	<i>Professionals and technicians in the state sector</i>	95.78
	Clerks	102.65
	<i>Clerks in the state sector</i>	98.51
	Small proprietors and self-employed	62.81
	Blue-collar workers	50.64
	<i>Blue-collar workers in the state sector</i>	59.63
The administrative level of cities	Centrally administered municipalities	263.99
	Provincial capital cities	125.08
	Other cities and towns	71.37
<i>Hukou</i> status	Urban	90.19
	Rural	40.25
State sector	Insiders	88.95
	Outsiders	58.36
Total		63.56

hukou status, and whether individuals are working inside or outside the state sector. High-income households have much more housing wealth than middle-income and low-income households. Households with higher education have much more housing wealth than those who have not received higher education. Household income, as economic capital, and education, as human capital, are typical market distribution mechanisms. Both of them lead to housing wealth differentiation, showing the prominent role of the market mechanism in housing stratification. The housing wealth of groups with different occupations also varies greatly. The higher the occupational status is, the more housing wealth the group possesses. The housing wealth of managerial personnel is much higher than that of other classes. However, it is quite surprising that the average housing wealth owned by professionals and technicians is lower than that of clerks.

Institutional arrangements have also led to differences in housing wealth among different groups. The administrative level of cities is highly correlated with housing wealth. The average housing wealth of urban residents in centrally administered municipalities is more than twice that of residents in provincial capitals, while the housing wealth of residents in provincial capitals is nearly twice that of residents in other cities. The housing wealth of residents with different *hukou* statuses also varies greatly, and

the average housing wealth of urban *hukou* residents is more than double that of rural *hukou* residents. One of the critical variables in the debate between the “market transition theory” and the “power persistence theory” is inside or outside the state sector. The power persistence theory holds that the advantages of the group in the state sector remain in the housing stratification after marketization. It can be seen from the data in Table 2 that the average housing wealth of the state sector employees is significantly higher than that of those outside the state sector. However, by occupation, the average housing wealth of managerial personnel, professionals and technicians, and clerks in the state sector is lower than that of similar occupations outside the state sector. Only for blue-collar workers, the housing wealth of state sector employees is higher than that of those outside the state sector. It is hard to judge whether the advantages of the state sector remain only by assessing the average housing wealth. The average housing wealth of the state sector insiders is higher than that of the outsiders probably because the state sector insiders have higher education, are more frequently managers and professionals, and more frequently live in higher administrative level cities than outsiders. Therefore, we need to do further analysis using regression models to test the effects of the market transition and power persistence, as well as the effect of power derivation, which is the advantage of administrative elites in the state sector.

The influencing factors of housing wealth inequality

In Table 3, eight nested regression models are used to examine the influence of socioeconomic status and institutional arrangements on housing wealth inequality. Model 1, as the baseline model, includes four demographical variables, and the independent variables of socioeconomic status and institutional arrangement are added consecutively in the following seven models.

Household income is the most decisive factor determining housing wealth

The effect of income on housing wealth is a key issue in the theoretical debate about the market transition of housing stratification. Before the market-oriented housing reform, housing stratification was based mainly on the administrative power and position of the state system, and income did not matter much. However, the market-oriented housing reform has raised the effect of income on the housing wealth distribution (Wu 2019; Yi et al. 2020). The results of the models in Table 3 show that household income is the key factor determining housing wealth. The regression coefficients of annual household income are significant in all seven models. Moreover, compared with Model 1, Model 2, with the “annual household income” variable added, has an R^2 that increased from 0 to 0.19, i.e., the explanatory power of the model increased by 19%. Because the increase in R^2 is not as large as 0.19 when adding other independent variables based on Model 1, it indicates that annual household income plays a decisive role in the amount of family housing wealth. In Model 8, which includes all independent variables, the regression coefficient of annual household income is .446; that is, for every 1000 yuan increase in annual household income, the amount of family housing wealth increases by an average of 4460 yuan.

Table 3 Regression analysis of housing wealth (2017, urban areas, N = 5165)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Constant	75.303***	16.370*	- 67.148***	- 48.054***	- 27.617*	- 21.972	- 24.901*	- 26.165*
Male	1.232	-2.226	- 6.222*	- 2.278	- .990	- .331	312	.667
Age	- .219	.461***	1.209***	.891***	.595**	.461*	.505*	.521**
Family size	- .275	- 2.716**	- .602	- .621	.166	.761	.631	.694
Married with spouse	- 1.666	- 4.424	- 5.351	- 7.720	- 7.867	- 7.989	- 7.416	-8.053
Annual household income	-	.528***	.476***	.485***	.450***	.448***	.447***	.446***
Years of schooling	-	-	4.979***	3.662***	2.292***	1.530*	1.749**	1.725**
Managerial personnel	-	-	-	36.289***	35.347***	33.423***	37.374***	57.778***
Professionals and technicians	-	-	-	- 1.844	3.137	.064	7.011	.908
Clerks	-	-	-	23.335***	24.020***	20.463***	26.403***	34.969***
Self-employed	-	-	-	1.425	5.767	5.162	3.015	4.023
Centrally administered municipalities	-	-	-	-	143.905***	139.596***	140.180***	140.106***
Provincial capitals	-	-	-	-	37.287***	35.089***	36.040***	36.088***
Urban hukou	-	-	-	-	-	15.273***	18.228***	17.957***
State sector	-	-	-	-	-	-	- 16.555***	- 9.025
Administrative elites in the state sector	-	-	-	-	-	-	-	- 45.182**
Professionals and technicians in the state sector	-	-	-	-	-	-	-	3.366
Clerks in the state sector	-	-	-	-	-	-	-	- 18.942
R ²	.000	.190	.211	.293	.353	.356	.359	.360
N	5165	5165	5165	5165	5165	5165	5165	5165

p < 0.05
 **p < 0.01
 ***p < 0.001

Education helps to increase housing wealth

The coefficients of years of schooling are significant in all models, including it as an independent variable, indicating that education plays a significant role in housing wealth. The coefficient in Model 8 is 1.725, i.e., for each additional year of schooling, housing wealth increases by 17,250 yuan on average.

Occupational status affects the amount of housing wealth

The explanatory power (R^2 value) of Model 4 with the independent variable of occupation increased by 8% compared with Model 3 without these independent variables, indicating that occupational status is an important influencing factor. The corresponding regression coefficient of Model 7 shows that the average housing wealth of managerial personnel is 373,740 yuan higher than that of blue-collar workers and that the average housing wealth of clerks is 264,030 yuan higher than that of blue-collar workers. There is no significant difference among groups of self-employed and blue-collar workers. Surprisingly, there is also no significant difference between professionals and technicians and blue-collar workers. It is probably that the advantage of professionals and technicians mainly lies in their high education, but at the same time, there is a big difference within this group based on education. Professionals and technicians with more years of schooling have more housing wealth. The independent variable of years of schooling in the models already reflects this positive effect, while technicians with fewer years of schooling have no advantage over blue-collar workers in terms of housing wealth. In addition, it can be seen from the data in Table 3 and Table 2 that professionals and technicians as a whole group have a lower place in the housing stratification than both managerial personnel and clerks.

The administrative level of cities is a key factor leading to housing wealth inequality

The administrative level of the city in which a family lives has widened the gap in housing wealth. Compared with Model 4 without “centrally administered municipalities” and “provincial capital” as independent variables, Model 5 with these two variables has an R^2 that is 6% higher than that of Model 4; this shows that this factor plays a relatively significant role in housing wealth inequality. Model 8 shows that the average housing wealth of the families living in centrally administered municipalities is 1,401,060 yuan more than that of those living in other cities and towns and that the average housing wealth of the families in provincial capitals is 360,880 yuan more than that of those in other cities and towns.

Hukou status is still playing a role

The long-standing urban-rural dual system in China and the corresponding *hukou* system have been relaxed with the development of the market economy. The influence of *hukou* status on migration, employment, and income is gradually weakening. However, the data in Table 3 show that *hukou* status is still playing a role in housing stratification. The coefficient of *hukou* status in Model 8 is 17.957, i.e., the family housing wealth of urban *hukou* people is 179,570 yuan more than that of rural *hukou* people.

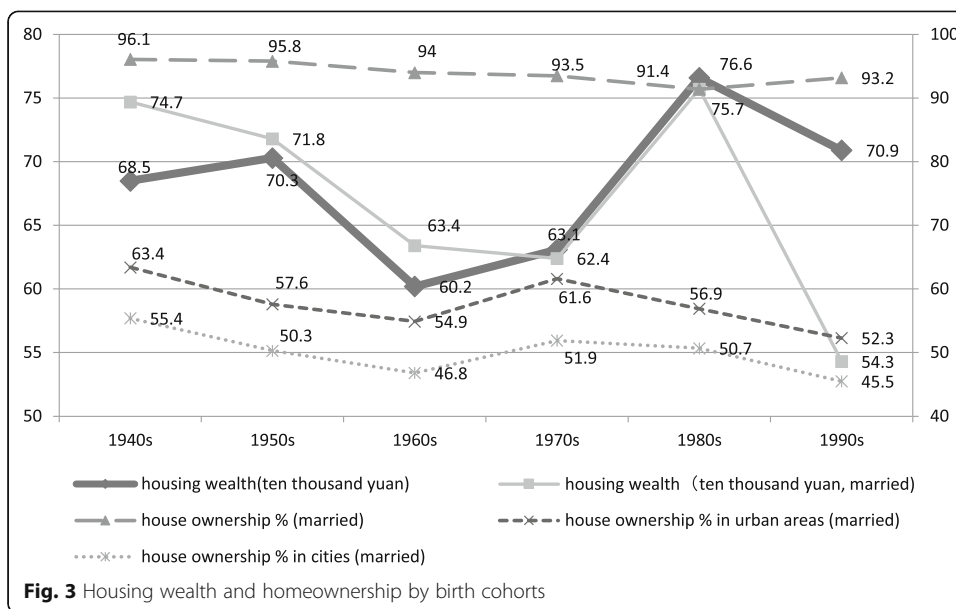
The advantages of the state sector no longer exist

The independent variables added in Model 7 and Model 8 are mainly to test the “power persistence theory” and the “power derivation theory,” that is, whether the employees in the state sector, especially the managerial personnel in the state sector (administrative elites), still have advantages in the distribution of housing resources. The coefficient of the “state sector” in Model 7 is significant and negative, which shows that the state sector still plays a role in the housing distribution, but its effect is negative. Contrary to the power persistence theory, the administrative elites have no advantages but rather have disadvantages. The average housing wealth of the managerial personnel in the state sector is lower than that of the counterparts outside the state sector by 165,550 yuan.

The coefficient of “administrative elites” in Model 8 is significant and negative, too, indicating that the average housing wealth of the managerial personnel in the state sector is lower than that of the managerial personnel outside the state sector by 451,820 yuan. It is also contrary to the power derivation theory since administrative elites in the state sector have no advantages but rather have disadvantages compared with their counterparts outside the state sector. Meanwhile, in Model 8, the coefficient of the “state sector” becomes insignificant, and this is also the case for the coefficients of “professionals and technicians in the state sector” and “clerks in the state sector.” Thus, we can see that the difference between insiders and outsiders of the state sector mainly lies in the group of the managerial personnel while there is no significant difference between the insiders and outsiders among other occupational groups.

The effects of age and generation on housing wealth are complicated

Many European scholars have been discussing that today’s youth is “generation rent” because they cannot afford homeownership (Mckee et al. 2017; Hoolachan et al. 2017), which is “spatializing the intergenerational transmission of inequalities” (Hochstenbach 2018), and its effects “hinder social mobility and exacerbate inequality” among young people (Coulter 2018). The same thing has been happening in urban China, but the story is quite different from that of European countries. Table 3 shows that age has a positive effect on housing wealth, and on average, each additional year of age increases housing wealth by about 5000 yuan while controlling for other variables (such as education, occupation, and residential location). However, the comparison of housing wealth between generations in Fig. 3 has not reflected a definite disadvantage of younger generations in housing wealth. The birth cohort of the 1980s (married or not) has the most housing wealth, while the birth cohorts of the 1960s and 1970s have much less than the cohorts of the 1980s, 1950s, and 1940s. The 1990s cohort also has much more housing wealth than the 1960s and 1970s cohorts. However, the married 1990s cohort has the least housing wealth because most of the married young people of the 1990s cohort are from the groups with low education, low income, and low occupational status. The 1990s cohort persons with higher education, higher income, and higher occupational status usually marry at an older age. For the homeownership rate in urban areas in Fig. 3, the trend across cohorts is a wave shape, decreasing from the 1940s cohort to the 1960s cohort, increasing in the 1970s cohort and then decreasing from the 1970s cohort to the 1990s cohort.



The results of Fig. 3 and Table 3 reveal the complicated effects of age and generation on housing wealth. Age has a positive effect on housing wealth (as shown by Table 3), but young generations have more housing wealth because young people have higher education and are more likely to live and work in larger cities than older people (Table 3 also shows the positive effects of education and residential place). However, that is only a partial explanation for the greater housing wealth of the 1980s cohort than the 1960s cohort. The intergenerational transmission of housing wealth provides a larger part of the explanation. Young people cannot afford homeownership in cities, and so their parents have to help them to settle down in cities. Parents spend their life savings or sell their own houses to pay for the house purchases of their children. In most cases, for the less wealthy families, parents live in old and cheap houses and spend their savings to help their children buy new and costly houses. Many people of the 1960s are the parents of the 1980s; many people of the 1970s cohort are the parents of the 1990s. That results in the 1960s cohort and the 1970s cohort having less housing wealth than the 1980s cohort and the 1990s cohort, respectively. In addition, while wealthy parents usually make the full payment for their children’s houses, the less wealthy parents can only make down payments for their children’s houses, and the children have to bear the burden of a mortgage. The intergenerational transmission of housing wealth has been enlarging the inequality not only in children’s generations but also in parents’ generations.

Conclusion and discussion

We can draw the following conclusions based on the data analysis.

First, the market distribution has become the dominant mechanism in producing housing wealth inequality, which partly supports the “market transition theory.” Data analysis shows that market mechanisms such as economic capital (annual household income), human capital (years of schooling), and occupational status have substantial effects on housing stratification, and economic capital plays the primary role in determining the family housing wealth. It indicates that the market mechanism has replaced

the original socialist redistribution mechanism and become the main mechanism for housing wealth distribution. The housing stratification in urban China has realized the market transition. However, the market transition has not reduced housing inequality as expected by the “market transition theory”; instead, it led to new and larger inequality.

Second, the weakening of the socialist redistribution mechanism leads to the elimination of the advantages of the state sector and administrative elites in the housing stratification. The data analysis results reject the “power persistence theory” and “power derivation theory,” at least in the aspect of housing wealth distribution; the market mechanism has been erasing the effect of the original political power. The “persistence power theory” and “power derivation theory” often mention the “rent-seeking” of officials that seek housing wealth (Hu 2012; Cai and Huang 2013; Fang 2014). It does exist and was once very prominent in the marketization process. However, the anti-corruption campaign implemented by the government in the recent decade has effectively curbed such behavior and restricted the role of political power in the housing resource distribution. In addition, although the housing reform policy allowed the state sector employees, especially the administrative elites, to purchase public houses at a low price, thus occupying more housing resources in the initial stage of marketization; for the same reason, they had relatively good housing conditions, and many of them usually could not respond to the rapid development of the real estate market promptly, causing them to miss the best opportunity to invest in real estate. In contrast, the high-income people outside the state sector, especially the economic elites and administrative elites outside the state sector, had stronger motivations to invest earlier and more in real estate, thus accumulating more housing wealth with soaring housing prices. The “early bird” effect has widened the housing wealth gap between the insiders and outsiders of the state sector among the economic and administrative elites.

However, scholars supporting the “persistence power theory” and “power derivation theory” have noticed that even after housing reform, some work units in the state sector still provide housing benefits to employees. The higher the administrative position in the work units is, the more housing benefits the employees receive. It indicates that political power still offers sustainable advantages in terms of housing distribution (Cai and Huang 2013; Wu 2017). This phenomenon is mostly limited to individual work units and enterprises in the state sector, with higher administrative levels and more resources. Such work units are mostly concentrated in megacities such as Beijing and Shanghai. National data cannot reflect this, and more specialized data are needed for more detailed analysis.

Third, the weakening effect of the political effect does not mean that the original socialist redistribution mechanism no longer plays a role in the market. The original socialist institutional arrangements such as the political hierarchy of cities and the *hukou* system formed before market reform continue to play a role in the market-oriented economy and have become an important factor leading to housing stratification. For example, the *hukou* system has led to a large gap in the housing wealth between urban and rural *hukou* people. Moreover, the political hierarchy of cities under the promotion of marketization even plays a more significant role in housing wealth inequality. Before market reform, cities at higher administrative levels (such as centrally administered municipalities and provincial capitals) or cities playing core roles in the national

development strategy had more resources and enjoyed more benefits. In the market economy, the differences between these cities are more prominent, and the development of the real estate market has dramatically intensified the housing wealth inequality of residents in cities at different administrative levels.

Generally, with the development of marketization, the market mechanisms have been gradually replacing the original socialist redistribution mechanisms and become the main driving force of housing wealth inequality. The effect of political power, the main mechanism leading to housing inequality under the socialist planned economy, is weakening in the housing stratification. The “persistence power theory” and “power derivation theory” will be challenged. However, although political power is restricted, the effects of some of the original socialist institutional arrangements have remained. The “institution persistence theory” may provide a new perspective for the housing stratification in today’s urban China.

Abbreviations

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Authors’ contributions

Li Chunling constructed the theoretical framework, conducted data analysis, and wrote the theoretical discussion. Fan Yiming wrote the introduction and the literature review. The authors read and approved the final manuscript.

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Competing interests

The authors declare they have no competing interests.

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References

- Bian, Yanjie. 1996. & John R. Logan. Market transition and the persistence of power: the changing stratification system in urban China[J]. *American Sociological Review* 61 (5): 739–758.
- Bian, Yanjie, and Zhang Zhanxin. 2002. Marketization and income distribution in urban China:1988 and 1995[J]. *Research on Social Stratification and Mobility* 19.
- Cheng, Siwei. 1999. *Urban housing system reform of China: targeted models and difficulties in implementation [M]*. Beijing: Democracy and Construction Publishing House.
- Coulter, Rory. 2018. Parental background and housing outcomes in young adulthood [J]. *Housing Studies* 33 (2): 201–223.
- Fang, Changchun. 2014. Institutional segmentation and housing inequality in urban China [J]. *Chinese Journal of Sociology* 3.
- Gerber, Theodore P. & Michael Hout. More shock than therapy: market transition, employment, and income in Russia, 1991–1995[J]. *American Journal of Sociology*, 1998(104). 104.1(1998):1–50.
- He, Cai, and Huang Jianhong. 2013. Who owns the second housing -market transition and urban housing differentiation [J]. *Jilin University Journal Social Sciences Edition* 53 (4): 102–114.
- Hegedus, J. 1987. Reconsidering the roles of the state and the market in socialist housing systems[J]. *International Journal of Urban and Regional Research* 11: 79–97.
- Hochstenbach, Cody. 2018. Spatializing the intergenerational transmission of inequalities: parental wealth, residential segregation, and urban inequality[J]. *Environment & Planning A: Economy & Space* 50 (3): 689–708.
- Hongming, Zhang, et al. 1998. *Housing economics [M]*. Shanghai: Shanghai University of Finance and Economics Press.
- Hoolachan, Jennifer, McKee, Kim, Moore, Tom. & Soaita, Adriana Mihaela. ‘Generation rent’ and the ability to ‘settle down’: economic and geographical variation in young people’s housing transitions[J]. *Journal of Youth Studies*, 2017, 20(1): 63–78
- Hu, Rong. 2012. Housing inequality during the market transition: evidence from the data of CGSS2006 [J]. *Chinese Journal of Sociology* 1.

- Lee Yok-shiu F. The urban housing problem in China. *The China Quarterly*[J], 1988(115):387-407.
- Logan, John R., Bian Y. J., Bian F.Q. Housing inequality in urban China in the 1990s[J]. *International Journal of Urban and Regional Research*, 1999, 23(1):7-25.
- Logan, John R., Y.P. Fang, Z.X. Zhang. Access to housing in urban China[J]. *International Journal of Urban and Regional Research*, 2009, 33(4):914-935.
- Mckee, K., Moore, T., Soaita, A., & Crawford, J. 'Generation rent' and the fallacy of choice[J]. *International Journal of Urban & Regional Research*, 2017, 41(2):318-333.
- Nee, V. 1989. A Theory of market transition: from redistribution to markets in state socialism[J]. *American Sociological Review* 54 (5): 663–681.
- Parish, William L., and Ethan Michelson. 1996. Politics and markets: dual transformations[J]. *American Journal of Sociology* 101.
- Shengzu, Gu, and Li Zhengyou. 1998. Dual housing system reform and starting of the housing market [J]. *Sociological Studies* 6.
- Szelenyi, I. 1978. Social inequalities in state socialist redistributive economies[J]. *International Journal of Comparative Sociology* 19: 63–87.
- Szelenyi, I. & Manchin. Social policy under state socialism: market, redistribution, and social inequalities in East European socialist societies[M]. Armonk, NY: M.E. Sharpe, 1987: 120-121.
- Walder, Andrew, G., Markets and inequality in transitional economies: toward testable theories[J]. *American Journal of Sociology*, 1996(101):1060-1073.
- Wang, F. 2003. Housing improvement and distribution in urban China: initial evidence from China's 2000 census[J]. *China Review* 3 (2): 121–143.
- Wang Y. P. & A. Murie. The process of commercialization of urban housing in China[J]. *Urban Studies*, 1996, 33(6):971-989.
- Wanqing, Wei. 2014. Evolution characteristics of institutional change and housing inequality of urban residents in China [J]. *Jiangnan Tribune* 5.
- Wu, Fulong. 1996. Changes in the structure of public housing provision in urban China[J]. *Housing Studies* 33 (9): 1601–1627.
- Wu, Kaize. Housing reform, life course and urban housing acquisition (1980-2010) [J]. *Sociological Studies*, 2017(5):64-89.
- Wu, Kaize. 2019. Housing marketization and housing inequality: a research based on CHIP and CFPD survey[J]. *Sociological Studies* 6: 89–114.
- Xin, Liu. 2004. *Redistribution power, rent-seeking capacity, market capacity and life opportunities: an interpretation of power generation theory of stratification mechanism in China's transition period [D]*. Hong Kong: Chinese University of Hong Kong.
- Xueguang, Zhou. 2000. Economic Transformation and income inequality in urban China: evidence from a panel data[J]. *American Journal of Sociology* 105.
- Yanjie, Bian, John Logan, Hanlong Lu, Yunkang Pan, and Guan Ying. 1996. "Unit system" and housing commercialization [J]. *Sociological Studies* 1: 83–95.
- Yi, Chengdong, Li, Yuyao, Wang, Yourong and Wan, Haiyuan. Social stratification and housing wealth inequality in transitional urban China[J]. *International Journal of Urban Sciences*, 2020(1):1-20.
- Youqin, Huang, and W. Clark. 2002. Housing tenure choice in transitional urban China: a multilevel analysis[J]. *Urban Studies* 39 (1): 7–32.

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