

Intergenerational Housing Support between Retired Old Parents and their Children in Urban China

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Abstract

Intergenerational support between parents and children in Chinese cities has been dramatically affected by recent social changes. This paper investigates the changing pattern of intergenerational *housing* support between retired old parents and their children, and the legacy of public housing in shaping this pattern. By initially establishing an up-to-date picture of intergenerational housing support between retired old parents and their children, it seeks to determine how this support depends on whether parents have previously been allocated public housing and if so, on whether they have disposed of it or have continued to occupy it. A survey with 1000 retired old people from Tianjin in 2009 is used for the analysis. A support flow model is used to go beyond studying housing support *per se* and to study the flow of intergenerational support in both directions and in different forms.

Keywords: intergenerational housing support, support flow, pattern of intergenerational support, public housing, old age, China

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Introduction

Tackling low housing affordability in cities has become a key concern for the Chinese government, as it is increasingly associated with ensuring social stability as well as guaranteeing a decent standard of living for urban residents. To make housing more affordable, the government has tried to push down house prices by directly limiting second homeownership or indirectly tightening monetary policies. Since 2010, the policy emphases have been on increasing social housing supply and controlling speculation. However, government interventions remain limited. A series of academic studies have appeared recently, investigating the impact of government interventions upon house prices, the reactions of real estate developers and the relationship between housing market and land supply (Lam, 2011; McCarthy and Zhu, 2011; Wu, *et al.* 2010). These studies tend to highlight their concern for government interventions that distort the market. Both protagonists and critics of government interventions use the relationship between house price and household income as the key indicator for examining housing affordability. This practice however can generate confusion. The indicator, frequently expressed as the P/I ratio, presumes that households are independent from each other and that a household only pays for housing solely with the income of its members. It therefore ignores the capacity of outsiders such as extended families to pool resources and contribute to a household's housing expenditure. Such ignorance results in an inadequate understanding of the true extent of housing affordability.

If the role of extended families is taken into account, it would be important to consider cultural and institutional changes with regard to intergenerational practices of supporting each other's housing consumption. When a society's norm changes towards terminating parental support for children's housing purchase, for instance, the actual housing affordability experienced by the children's generation would worsen in reality, even though the P/I ratio for the children's generation might remain unchanged. Children would have to rely more on their own means to acquire housing and, as a result, their housing expenditure will constitute a greater proportion of their household income. Seen from this perspective, if the government tries to address the low affordability issue while assuming that households are independent from each other, interventions would fail to take into account the role of intergenerational support and may systematically be biased towards increasing housing supply. Therefore, in order for policy-makers and critics to be able to grasp the true extent of housing affordability problems, it is important to study the changing patterns of housing transfer within extended families.

In this regard, we aim to examine China's transitioning nature of intergenerational housing support. We consider two key changes that influence household practices in China's housing market. First, in Chinese cities, the relationship between parents and children has been dramatically affected by recent social changes. These include the dominance of one-child families, the shrinking size of households, the ageing society, and the on-

going socio-economic reforms (Ng and Li, 2010). Second, as a result of housing privatisation, the houses that many urban employees received during the era of public housing allocation have become marketable assets (Yan and Chi, 2001), and many beneficiaries became homeowners (Wang, 2010).ⁱ When the allocation of public housing mostly ceased in the late 1990s, younger people could no longer count on public allocation to address their housing needs. Under these circumstances, to what extent does the public housing legacy play a part in the intergenerational housing support? Do the support practices of parents who continue to occupy their publicly allocated house differ from those who sold it? Are parents with marketised housing assets in a better position to support their children? These are the questions that this paper seeks to address.

In the following sections, we start by reviewing the exiting literature on intergenerational housing support. We then explain why we believe intergenerational housing support is related to the history of public housing allocation: parents who have been allocated housing may be less in need of support from their children in comparison with those who have not been allocated housing. There may also be systematic differences between sub-groups. After explaining the research design, we report our findings. The analysis shows that, while the traditional children-to-parents support model still exists, an exchange relationship is much more common these days and it is not unusual to find that support flows from parents to children without any support in return. Furthermore, from our analysis of material (housing or financial) support and its relation to public housing allocation, we find that parents who were allocated public housing are less likely to receive support from their children. Parents who continue to occupy a publicly allocated house frequently make joint living arrangements with their children. The paper concludes with summary discussions and further implications of this study.

Existing studies of intergenerational housing support

Intergenerational housing support in this paper refers to the flow of support (resources or intensive interaction) between parents and children where housing is either at the centre of concern or treated as a means of exchange. Housing support may be in financial forms such as cash or asset transfer in order to assist recipients' housing purchase or rental expenses. Housing support may also be in the non-financial form of providing physical support such as co-habitation arrangements.

Intergenerational housing transfer has been a recurring theme in the housing literature in the West (for instance, Mayer and Engelhardt, 1996; Engelhardt and Mayer, 1998; Attias-Donfut *et al.*, 2005). The transfer of parental wealth, often in the form of gift-giving to assist housing purchase, has been identified as an important factor in shaping younger generation's homeownership (Helderman and Mulder, 2007; Öst, 2012). In the context of developing countries, there is also a rich body of literature on the

significance of examining internal wealth flows between parents and children as a form of family support (for instance, Caldwell, 1976, 2005; Moser, 2009) and in relation to filial obligations to elderly parents (Jones and Chant, 2009). Filial piety has been frequently cited as a major factor that shaped traditional intergenerational responsibilities in East Asia, and the transfer of housing wealth has been at the centre of scholarly attentions (Izuhara, 2010).

Apart from asset transfer, there is also a large body of literature on intergenerational living arrangements, an important form of housing support in the world. Hirayama and Forrest (2009), for instance, observes that Japan's prolonged recession and its restructuring of the labour market have resulted in the increasing share of adult children who reside in parental homes. The United Nations produced a summary report on living arrangements for older people (UNDP, 2005). The enormous differences in the world regarding how older people make living arrangements with their children have much to do with the demographic, social and economic circumstances studied. Asia has the highest rate of parents living together with children/grandchildren (74 percent).

Studies on intergenerational housing support in China tend to focus on living arrangements. Traditional values dictate that young people take care of old people in return for the 'grace of upbringing' - namely, in gratitude for the past and with no expectations for future return. Zhang (2004) argues that typical life course changes continue to fit the traditional framework. Logan and Bian (1999, p.1253) argue, however, that the decision to live together represents "strategic choices about how to live, not predetermined by a fixed cultural model". In this sense, the Chinese family is 'modern'. Later studies offer some evidence to support Logan and Bian's point by stressing the need for care by parents (Sereny, 2011; Sun, 2002).

Most studies on housing arrangements in China use the data collected in the 1990s and early 2000s. This was the time when full-scale housing privatisation reforms had just started and, apart from a few key cities such as Beijing and Shanghai, most cities had not yet experience the pressures brought by a highly speculative housing market. Since then, the housing market has significantly developed. The volume of trading has gone up, private ownership has become more important, and housing finance easier to obtain. For this reason, it is necessary to establish an up-to-date picture of the changing pattern of housing support and to determine whether the history of housing allocation is still relevant.

The legacy of public housing allocation on intergenerational housing support

Housing is traditionally an important aspect of intergenerational support in China. An 'ideal' family model for people who hold traditional views includes several generations of an extended family living under one roof, signifying the prosperity of the family clan. According to the traditional

filial piety culture, even if family members do not live together, it is still important that they live close to each other. The Confucius teaching dictates that when parents are alive, children are not to travel far away. The teaching is to guarantee that older parents receive material and non-material support from their children when in need.

In the 1950s, the Chinese government decided to allocate houses to urban residents based on need, arranged either by employers or by local governments. This housing system helped urban families to break away from the traditional mode of intergenerational support, as family members no longer needed to rely on each other. Families with housing difficulties could expect to receive housing from the state.

In the public housing system, however, housing supply was extremely limited. Young people who could share an accommodation with their parents were typically considered to be 'housed' and were not a priority in the waiting-list over the 'homeless'. This provided a disincentive for housing support within extended families: one could find people living in offices rather than co-habiting with their parents, stressing that they were homeless. Even so, in practice, there was still a great deal of parental support. Some lucky parents with better-off or sympathetic employers could be allocated extra rooms in order to house their children. When there was little hope for children to obtain housing from their workplace, parents would still function as the last resort (Li, 2002). As there was no alternative, intergenerational housing support mainly took the form of providing physical living arrangements rather than financial support.

The housing reform from the late 1980s began to dismantle the public housing system in Chinese cities, although it took some time for people to accept private housing and higher rents. From 1998, most employers stopped allocating houses to their employees and a large proportion of public houses were sold to existing tenants at substantial discounts. The present housing system in urban China is a combination of: an owner-occupied sector, in which some houses are purchased with assisted ownership schemes; an increasingly marginalised public rental sector; and, a growing private rental sector that involves a wide range of providers (Li and Duda, 2010).

Many researchers argue that the history of public housing continues to have a substantial impact. Former public housing beneficiaries continue to enjoy an advantage in the market (Wang, 1996; Zhou and Logan, 2002; Huang and Clark, 2002). Their advantage originates either from selling at market price the privatised public houses that were acquired at a discount (Sato, 2006; Zhou and Logan, 2002), or through the process of urban redevelopment and compensation (Shin, 2013). Rural-urban migrants are in a disadvantaged position, as they were unable to access housing benefits in the past, and are also not entitled to the housing subsidies offered to urban citizens (Wu, 2004).

Recent changes in the housing market are expected to affect the nature of intergenerational housing support. Firstly, the growing importance of the private housing market and the high prices in this market make housing less affordable to young families without assistance from their parents. Secondly, the institutional disincentives for parents to share houses with their children have disappeared. Thirdly, the emergence of financial services such as loans and mortgages makes it possible for parents to use their assets to help their children obtain housing. Living under the same roof is no longer the only option. Finally, although in the public housing system parents were able to help children but not vice versa, the market system and growing income of the younger generation make it possible for children to offer housing support to their parents.

With the development of the housing market, allocated houses may play different roles in the flow of support between parents and children. An allocated house can be a shelter, either independent or shared, for the child's family, an asset to exchange with children either for services or emotional support, or a source of household income. Compared with the public housing era, the market system gives more flexibility to families and diversifies the content of housing support between parents and children. Individuals who were allocated public housing might be in a stronger financial position than those who were not given such housing. This difference in financial strength might translate into lesser dependence on support from their children. Within this group, we can further expect differences between parents who disposed of their publicly allocated house and those who continued to occupy it. As the overall living conditions have improved in Chinese cities, allocated houses which were not designed for contemporary lifestyle were on average less desirable than the newly built. Therefore, when the market conditions were favourable, owners would have sought ways to move out of these houses. Owners might have taken advantage of compensation when their houses faced demolition and redevelopment. If their houses were in more desirable areas such as heritage conservation districts, they might have attempted to sell them at high prices (see Shin, 2010). For other owners whose houses were less attractive in the market, they would either rent the houses to tenants or continue to occupy the houses whilst waiting for the market conditions to improve. Thus, in a housing compound of publicly allocated houses, one may expect that those could afford to move out would have done so and that families who moved out would be in a stronger financial position than those who had to remain in publicly allocated houses. Consequently, the former can be predicted to receive less material support from their children.

Research Design and Data Collection

Based on the discussions earlier, we designed the research to address the following question: how have public housing allocation and its termination played a part in shaping the current intergenerational housing support? Given that rural-urban migrant workers had been excluded from the pre-reform public housing system, we focus on urban residents (with urban

household registration) only. Also to make sure that our interviewees all worked during the era of public housing allocation and had adult children, we decided only to include people who were retired at the time of the interview. Given limited resources, we had to choose between studying a small sample of both parents and children and a larger sample of parents only. Our choice was to focus on the parents' generation, making it possible for us to survey 1000 individuals.

For practical purposes, we focused the study on a single city: Tianjin. Several features of Tianjin make it appropriate for our study. Firstly, it shares the challenges of ageing population with many other cities in China (Feng and Mason, 2007). By the end of 2008, about 12 per cent of Tianjin's urban population were 65 or older. In the inner-city area where the survey for this research took place, the share was 15 per cent. Secondly, allocation through employers or local authorities was the most important source of housing in the period prior to housing reform, making it possible for us to study the legacy of this policy. Tianjin's housing reform mirrored the reform nationally. Tianjin stopped state housing allocation through employers in 1999. At the same time, a large proportion of the publicly allocated houses were sold to the sitting tenants, and a private housing market has been developed. According to the 2000 census, 49.31 per cent of households owned a house (Zhang, 2002).ⁱⁱ By 2005, about 21 per cent of households were known to have rented public housing, while 11 per cent purchased former public housing. Private renting of commercial housing accounted for about 3.8 per cent in the same year.ⁱⁱⁱ Thirdly, over time, a social housing security system that included various forms of public provision and subsidies was gradually established. There is also cheap rental housing (*lianzufang* in Chinese) for low-income households (individual monthly income of less than 1060 yuan for at least one year) who also suffer from housing poverty (<9 square metres per person). The public rental housing (*gongzufang*) targets lower-middle income households. The subsidised ownership (*jingji shiyongfang*) mainly targets households who have lost their houses because of urban regeneration (Tianjin Housing Security Net, 2012). Fourthly, unaffordable housing has been a serious problem in Tianjin in recent years. In 2001, the price to (household annual) income ratio (PIR) in Tianjin was only 4.4, which was less than the national average of 6.1, but in 2009 it had reached a level of 9.2 (*Metro Express*, 2010).

Data collection took place between February and April 2009. The survey was carried out with both a structured and open-ended interview schedule, which included questions about the socioeconomic background of the interviewee and his/her children's families, the interviewee's housing conditions and living arrangements, the history of housing allocation and the forms of support between interviewees and their children.

To make sure that our interviewees had adult children and had worked during the public housing allocation era, the survey targeted urban retirees only. Three screening questions were used: (1) "Have you or your partner (if applicable) officially retired?" (2) "Have you or your partner (if applicable) reached the age of 65?" and (3) "Do you have a child?" All

interviewees were to come from households with at least one retiree, at least one household member aged 65 and over, and at least one child. We used the age profile of Tianjin reported in the 2000 National Population Census as a reference for setting up the age distribution of the sample. A total of 1000 interviews were carried out, of which 903 were valid responses.^{iv} 39 per cent (350 responses) were in the 65-69 age group, while 29 per cent (266 responses) were in the 70-74 age group. The shares of the 75-79 and 80+ age groups were 21 and 11 per cent respectively. The age distribution of the sample is fairly close to the age distribution according to the 2000 census of the city, although small differences occur due to the removal of invalid responses.

Geographic location was a secondary sampling criterion. Interviewees were selected from the six inner-city districts of Tianjin: Nankai, Hexi, Hedong, Hebei, Hongqiao and Heping. For the sampling, we first set the number of interviewees in each district in proportion to the relative size of the urban permanent residents in these six districts. We then selected the two largest neighbourhoods from each district as the site of the fieldwork and split the number of interviewees allocated to each district evenly between the two neighbourhoods.

In order to select individual interviewees, we obtained household registration lists from the neighbourhood authorities. This guaranteed that our interviewees were permanent urban residents. The lists were arranged according to surname, and individuals in positions 1, 11, 21 and so on were selected for interviews. Interviewees came from 121 different streets, and therefore from many types of housing estates.

Data Analysis and Findings

Patterns and Typologies of Intergenerational Housing Support

Table 1 reports on the frequency of different forms of material support between parents and children. Support from parents to children can take many forms. Parents frequently offer cohabitation, give a house to the children or offer financial support. Children only rarely give a house to their parents or offer them financial support. The most common form of support from children to parents is cohabitation.

(Table 1 here)

Parents frequently cohabit with their children and/or move house in order to be closer to them. Table 2 reports on the frequency of such living arrangements and the reasons given for making them. Cohabitation was reported by 670 respondents and a house move was reported by 277 respondents.

(Table 2 here)

Table 3 divides the different types of support into three non-exclusive categories: material (housing or financial); care; and emotional (for example, visits). The type of support offered by parents is listed in the rows and the type offered by children is listed in the columns. Totals indicate the overall number of parents or children in each category.

(Table 3 here)

In nearly all cases, children offer some types of support to their parents. However, 247 of 903 parents offer no support to their children. Support from parents to children is most frequently material, whereas children are most likely to offer emotional support. The most frequent form of exchange is material support by parents in exchange for emotional support by children, followed by material support in exchange for care. Symmetric support (material/material, emotional/emotional and care/care) is also quite common. Emotional or care support by parents in exchange for material support by children is uncommon.

The interactions show a range of supportive relationships. The first is similar to the traditional form of parent-children relationship, in which economically independent children support their parents. This type is characterised by support flowing largely from children to parents. The second is an exchange relationship, in which support flows in both directions. The degree of mutual support depends on both need and proximity. While in such an exchange relationship, support is mutual, it is not necessarily equal. The third type is a child-dependent relationship, in which adult children and/or their families are dependent on their parents and do not offer support in return. The children could be either NEET (not in education, employment or training) or otherwise unable to afford their own housing. At the same time, parents either do not expect, or do not ask for, support for themselves. Our data suggest that children who depend on their parents but not vice versa are a significant group (nearly one-third). The majority of families engage in some sort of exchange relationship.

Material Support and the Legacy of Housing Allocation

In this section we look at the relationship between occupancy of publicly allocated housing and intergenerational material support. We start by considering the support from children to parents. Parents who have been allocated public housing may have lesser need for material support from their children as compared with parents who were never allocated public housing. We thus expect such parents to be less likely to receive material support from their children. In order to determine whether this is the case, we run a logistic regression model which hypothesises that, with other factors being equal, parents receiving material support from their children is dependent on whether the parents were allocated a publicly owned house.

The dependent variable is binary: do your children provide you with material support?

Existing studies (Mutchler and Burr, 1991; Spieker and Bensley, 1994; Worobey and Angel, 1990) help us to identify a number of other control variables. These are household characteristics that can be translated into four categories of regression control: social demographic variables such as age, marriage status and physical dependency; education level; income (top or bottom half) and whether the household receives regular income every month (for example, pension); and, children variables: the number of children, whether there are unemployed children and whether there are grandchildren. Table 4 reports the descriptive statistics of these control variables.

(Table 4 here)

The result of the logistic regression is reported in Table 5. The null hypothesis that housing allocation has no effect on whether children offer material support to their parents is strongly rejected ($z=-9.87$). The data are thus consistent with the hypothesis that having received public housing in the past makes individuals less dependent on material support from their children these days.

(Table 5 here)

A further question is: “Does having been allocated public housing make parents more likely to offer material support to their children?”. We test this using a similar logistic regression model, in which the controls are the same and the independent variable is whether parents offer material support to their children. The results in Table 6 do not support this hypothesis ($z=-0.4$).

(Table 6 here)

Some of the parents who were allocated public housing continue to inhabit their publicly allocated house, while others have sold or exchanged it. One of the main arguments in the literature on the advantage of being allocated a house in the past is that beneficiaries are able to sell the houses in the private market (Huang and Jiang, 2009). As discussed earlier, there is a strong implication that households that did not sell their allocated public house were not in a position to do so. Continued occupation of an allocated public house without even being able to rent it out could be an indication of having no alternative and being relatively poorer. We thus expect that parents who continue to live in publicly owned housing are more likely to be receiving material support from their children. However, if the children are also poor, they may not be able to support their parents, or may even be receiving support from their not-so-well-to-do parents.

Table 7 tests these hypotheses using two logistic regression models similar to the ones in Tables 5 and 6. The independent variables are: whether children offer material support to parents; and, whether parents offer

material support to children. The key regressor is occupation of allocated public housing, the omitted category being individuals who had previously owned an allocated public house, but have since sold or exchanged it. Individuals who have never owned an allocated public house are excluded from this regression.

(Table 7 here)

The results in Table 7 are consistent with our hypotheses: parents who continue to live in their publicly allocated house are both more likely to receive material support from their children ($z=2.38$) and more likely to offer material support to their children ($z=2.48$).

Then how can the two-way flow of material support be achieved? Since both parents and children are not well off, a practical way for them to offer material support to each other would be making joint living arrangements, as opposed to offering cash support. Table 8 examines this possibility by reporting on the likelihood of joint living arrangements between parents and their children. Consistent with our hypothesis, households who continue to occupy their allocated house are both more likely to cohabit with their children and more likely to have moved closer to their children (or vice versa).^v

(Table 8 here)

Conclusion

In this paper we have investigated the pattern of intergenerational housing support between retired old parents and their children, and the legacy of public housing in shaping this pattern. In so doing, we have gained a better understanding of how extended families could offer support to housing acquisition or use housing to exchange for services. An important contribution of the paper is that it utilises a support flow model to go beyond studying housing support *per se* and thus is able to study the flow of intergenerational support in both directions and in different forms. This makes it possible to study the interactions between parents and children and compare the current situation with the past.

We have identified four types of supporting relationship: traditional (children supporting parents); children dependent on parents; exchange; and, no support in either direction. The survey results show a changed pattern of intergenerational housing support in comparison with both traditional society, in which the norm was children supporting parents without expecting anything in return, and the pre-housing reform period, in which interdependency of parents and children was largely replaced by the socialist allocation system and parents only offered living arrangements when children were homeless.

We find that the traditional type of support is moving into insignificance. The opposite pattern, in which children are solely dependent on parents, is evident, but not as dominant as some media reports might have suggested. At the present time, however, we find that the majority of families are engaged in an exchange relationship, in which parents typically offer material support in return for care and/or emotional support. It is important to note that our sample is restricted to retired people whose children were likely to have been born prior to the introduction of the one-child policy. It is therefore likely that the proportion of children depending on parents will be increasing, at least as long as housing affordability problems continue and younger generations are squeezed out of independent housing access due to the speculative housing boom in Chinese cities.

Looking at the legacy of public housing allocation, we find that parents who were allocated public housing are less likely to receive housing support from their children. As a group, however, they are not more likely to offer support to their children than parents who were not allocated public housing. Splitting the sample between those parents who continue to occupy their publicly allocated house, and those who sold or exchanged it, we find that those individuals who continue to live in the publicly allocated house are more likely to offer material support to their children, and more likely to have made joint living arrangements. This link is consistent with the situation that households that continue to occupy their publicly allocated house were not in the position to sell their houses in the private market, and are thus likely to be relatively poorer compared with households that had previously owned a publicly allocated house and sold it.

Placing this analysis in a broader context, this research suggests that households are not independent units in the housing market. Parents and children actively engage in mutual help. Therefore, it is important for policy-makers to take these activities into account when addressing the housing affordability issue. This is particularly important when our study shows a growing importance of an exchange relationship between parents and children. The state functioning as the only support for individual households in need may not truly reflect how extended families cope with their needs. The role of extended families and the degree of their mutual support presents another area of further research on the relationship between the state and families in urban policy and service provision.^{vi}

Another important issue that deserves further study is the contrast between China and other East Asian economies, such as Japan, Korea, Taiwan, Hong Kong and Singapore. Two common themes can be identified: the prevalence of filial piety in the traditional culture and the importance of homeownership as a tradable and transferable asset (Izuhara, 2010); and, the transition towards a less supportive intergenerational relationship from the children's perspective (Lam *et al.*, 1998). Our study suggests that Chinese cities may share these as commonalities, but the privatisation of public housing and the transferability of former public housing to the children indeed make China an outlier as its public housing history plays a part in accommodating the needs of older parents. Although young people may

earn higher salaries than their parents, the ownership of allocated public housing by parental generation puts parents in a position that may be less worse-off than one might imagine. The availability of housing assets which have grown rapidly in value helps older parents to negotiate with their children for support, become less dependent on their children and even have the capacity to offer financial support to their children. To some extent, this helps retired old parents to survive and cope with urban China's rapid shift towards the monetisation of various social services and the withdrawal of the state sector from the direct provision of these services.

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Endnote

ⁱ In this process of housing privatisation, however, not all units became marketable assets. For instance, university employees were only able to sell their properties to their university at prices set by the university and not market prices. We thank an anonymous referee for pointing this out.

ⁱⁱ This includes the self-built, private ownership, subsidised ownership and privatised public housing. This is the proportion of households that own houses, and different from owner occupation.

ⁱⁱⁱ This is based on the Tianjin 2005 1% Population Survey Data Assembly provided by All China Data Center through China Data Online services.

^{iv} When an interviewee was younger than 65, the partner's age was recorded. People living in care centres were not included in this research.

^v Some people reported that they lived in the allocated public house, and at the same time stated that they moved their house in order to be closer to their children. This reflects the existence of a black market for exchanging publicly allocated houses. After the exchange the 'new' house would still be regarded as being in the hands of the employer. If the employer requests the return of the allocated public house, the exchanged 'new' one would simply be returned as long as it was not smaller in size. Such a black market used to be quite active in Tianjin.

^{vi} Clearly this research has not taken into account the massive migration population in cities and cannot be generalised for the whole population. This will be a very important field of study to pursue, and we thank an anonymous referee for this insight.

Table 1. Forms of material support (N=903)

Direction of support	Form of support	Respondents (Multiple responses allowed)	
		Number	Percent
Parents to Children	Parents let children move in for cohabitation	337	78.7%
	Parents transferred a house to children	218	50.9%
	Parents paid down-payment	66	15.4%
	Parents helped either to get a loan or with mortgage payment	68	15.9%
	Parents contributed to rents or other housing-related expenses	43	10.0%
	Parents borrowed money from other people for children	4	0.9%
Children to Parents	Children let parents move in for cohabitation	240	88.9%
	Children bought a house for parents	19	7.0%
	Children paid partly for the house	49	18.1%
	Children contributed to rents	30	11.2%

Note: The respondents could give multiple answers to types of support; not every respondent answered this question.

Source: 2009 Survey

Table 2. Types of living arrangements and reasons for making these arrangements

Type of living arrangements	N	% of 903	Reasons for making living arrangements	N	% of 903
Cohabitation	670 ^a	74.2	<i>Parents helping children</i>	337^c	37.3
			• Our children cannot afford to buy a house	140	15.5
			• We take care of grand-children or do house chores	100	1
			• To save some money for our children	49	5.4
			• Our child is living with us because he/she is not married yet	48	5.3
			<i>Children helping parents</i>	106	11.7
			• We do not have our own house	7	0.8
• They can take care of us	99	11			
Move house to be closer to children	277	30.7	<i>House-move decisions because of the children</i>	104	11.5
			• Keep the house for the children	49	5.4
			• Give our previous house to the children	13	1.4
			• Move to a cheaper house for the children	42	4.7
			<i>Move for mutual benefits</i>	150	16.6
• Move to stay closer to the children	150	16.6			
Total ^b	710	75.7			

Notes:

- a. Including all parents who had cohabited with their adult children or family.
- b. Some respondents had both reported cohabitation and having moved house in order to be closer to their children.
- c. Not all respondents gave a reason for making their living arrangements.

Source: 2009 Survey

Table 3. The pattern of support flows between parents and children (N=903)

Note. Rows (columns) denote the type of support offered by parents (children). Row (column) totals show the overall number of parents (children) offering a given type of support.

Support by parents \ Support by children	Material	Care	Emotional	None	Total
Material	200	331	438	14	538
Care	102	155	221	0	244
Emotional	103	128	188	0	196
None	65	89	224	2	247
Total	310	486	768	16	

Source: 2009 Survey

Table 4. Descriptive statistics of demographic and socio-economic variables

	N	Mean	S.D.	Min.	Max.
Interviewee's age	903	72	6.15	54	98
Partner's age	626	70	5.59	52	86
Monthly income (RMB) ^a	903	2,356	1,242	70	8,000
State pension (RMB)	883	2,322	1,219	300	8,000
Private pension (RMB)	4	625	435	200	1,000
Gift money from relatives (RMB)	150	433	334.9	20	2,000

Fixed source of income	Freq.	Percent	Marital status	Freq.	Percent
Yes	887	98.2%	Single, divorced or separated	288	31.9
No	16	1.8%	Married and living with partner	615	68.1

Highest education between the couple	Freq.	Percent	Physical dependency	Freq.	Percent
Primary or below	373	41.3%	No	845	93.6%
Middle school	436	48.3%	Yes	58	6.4%
Higher education	94	10.4%			

Number of children	Freq.	Percent	Grandchild(ren)	Freq.	Percent
1	147	16.3%	No	57	6.3%
2	366	40.5%	Yes	846	93.7%
3	201	22.3%			
4+	189	20.9%	Unemployed child(ren)		
			No	714	79.1%
			Yes	189	20.9%

Note: a. Income of the retired couple. Where the interviewee is single, it is his/her income. Source: Survey in Tianjin 2009.

Table 5. Logistic regression: The dependent variable is whether children offer housing support to their parents (N=903).

	Odds Ratio	S.E.	z	P>z	[95% Conf. Interval]	
Was allocated public housing (not allocated omitted)	0.195	0.323	-9.87	0.000	0.141	0.270
Age of the older of the couple	0.992	0.016	-0.530	0.593	0.961	1.023
Married or with partner (single, widowed, or divorced without partner omitted)	1.161	0.231	0.750	0.452	0.786	1.716
At least one of the couple is dependent (no dependency omitted)	0.370	0.145	-2.540	0.011	0.172	0.798
Highest education of the couple, secondary or more (primary omitted)	0.857	0.161	-0.820	0.411	0.593	1.238
Household income>2200 (household income<=2200 omitted)	1.019	0.189	0.100	0.920	0.708	1.466
Number of children	0.911	0.084	-1.020	0.308	0.761	1.090
Unemployed children (no unemployed children omitted)	0.768	0.155	-1.300	0.192	0.517	1.142

Notes. Some statistically insignificant regressors are excluded from the table. Prob > chi2 = 0.00; LR chi2(8) = 133.6; Pseudo R2 = 0.12; Log likelihood = -484

Source: 2009 Survey

Table 6. Logistic regression: The dependent variable is whether parents offer material support to their children (N=903)

	Odds Ratio	S.E.	z	P>z	[95% Conf. Interval]	
Was allocated public housing (not allocated omitted)	0.946	0.132	-0.400	0.691	0.721	1.243
Age of the older of the couple	1.015	0.014	1.090	0.278	0.988	1.042
At least one of the couple is physically dependent (no dependency omitted)	0.544	0.159	-2.080	0.038	0.307	0.966
Household income>2200 ^a (household income<=2,200 omitted)	1.123	0.160	0.810	0.416	0.849	1.486
Highest education achieved by the couple, secondary or more (primary education omitted)	1.365	0.216	1.960	0.049	1.001	1.862
Number of children	0.921	0.074	-1.020	0.307	0.786	1.079
Having grandchildren or not (no grandchildren omitted)	0.932	0.272	-0.240	0.809	0.526	1.650
Unemployed children (no unemployed children omitted)	1.078	0.184	0.440	0.661	0.771	1.507

a. 2,200 yuan is the median monthly household income.

Notes. Some statistically insignificant regressors are excluded from the table. Prob > chi2 = 0.08; LR chi2(8) = 14.09; Pseudo R2 = 0.01; Log likelihood = -618

Source: 2009 Survey

Table 7. Material support by occupation of allocated public housing (N=494)

Children offer material support^a	Odds Ratio	S.E.	z	P>z	[95% Conf. Interval]	
Living in allocated house (not living in allocated house omitted)	1.721	0.393	2.380	0.017	1.100	2.693
Age of the older among the couple	1.013	0.024	0.560	0.574	0.968	1.061
Married or with partner (single, widowed, or divorced without partner omitted)	0.611	0.185	-1.620	0.104	0.337	1.107
At least one of the couple is dependent (no dependency omitted)	1.163	0.536	0.330	0.743	0.471	2.872
Highest education of the couple: secondary or more (primary omitted)	1.020	0.267	0.080	0.939	0.610	1.705
Household income>2200	1.516	0.445	1.420	0.157	0.853	2.695
Number of children	1.190	0.165	1.260	0.207	0.908	1.561
Grandchild	1.560	1.018	0.680	0.496	0.434	5.604
Unemployed children (no unemployed children omitted)	0.826	0.252	-0.630	0.530	0.454	1.502

Parents offer material support^b	Odds Ratio	S.E.	z	P>z	[95% Conf. Interval]	
Living in allocated house (not living in allocated house omitted)	1.586	0.295	2.48	0.013	1.101	2.285
Age of the older among the couple	1.021	0.020	1.02	0.305	0.982	1.061
At least one of the couple is dependent (no dependency omitted)	0.731	0.286	-0.8	0.422	0.339	1.573
Highest education of the couple: secondary or more (primary omitted)	1.158	0.252	0.67	0.502	0.755	1.775
Household income>2200	1.065	0.209	0.32	0.75	0.725	1.564
Number of children	1.039	0.119	0.34	0.736	0.831	1.300
Grandchild	1.103	0.452	0.24	0.812	0.493	2.464
Unemployed children (no unemployed children omitted)	0.868	0.207	-0.59	0.554	0.543	1.386

Notes:

a.
 N = 494
 LR chi2(9) = 15.3
 Prob > chi2 = 0.0831
 Pseudo R2 = 0.0306
 Log likelihood = -242.57

b.
 N = 494
 LR chi2(8) = 9.58
 Prob > chi2 = 0.2959
 Pseudo R2 = 0.0143
 Log likelihood = -330.101

Table 8. Occupation of allocated public housing and living arrangements for individuals who were previously allocated public housing (N=494)

	Allocated house was sold or swapped (N=264)			Continues to occupy allocated house (N=230)			Total
	N	% of 264	% of 494	N	% of 230	% of 494	
Cohabiting with children ^a	178	67.40%	36.0%	173	75.20%	35.0%	351
Moved to be closer to children, or vice versa ^b	57	21.60%	11.5%	85	37.00%	17.2%	142
Total ^c	189	71.60%	38.3%	185	80.40%	37.4%	374

Notes:

- a. Cross-tab statistics for table on occupation of allocated public housing and cohabitation: Pearson $\chi^2(1) = 3.6295$ Pr = 0.057
Kendall's tau-b = 0.0857 ASE = 0.044
- b. Cross-tab statistics for table on occupation of allocated public housing and moving home: Pearson $\chi^2(1) = 14.1686$ Pr = 0.000
Kendall's tau-b = 0.1694 ASE = 0.044
- c. Cohabiting with children and/or moved closer to children. Cross-tab statistics for table on occupation of allocated public housing and any sort of living arrangements with children: Pearson $\chi^2(1) = 5.2275$
Pr = 0.022 Kendall's tau-b = 0.1029 ASE = 0.044

Source: 2009 Survey