Peer Effects in Housing Size in Rural China

Subjects: Geography | Psychology | Urban Studies
Contributor: Tianjiao Li

In recent decades, rural China has witnessed a housing construction boom. In order to control the rapid growth of rural housing, both central and local governments have established quantitative restrictions on the floor numbers and total housing area; however, these have been relatively ineffective. Current research to explain this rapid growth in rural housing tends to consider independent household behavior, while social interactions among villagers are neglected.

rural housing | peer effect | regional disparity | SARAR model | China

1. Introduction

Rural China has changed rapidly and profoundly since the economic reforms in 1978 [1]. In terms of spatial restructuring, rural housing construction has boomed due to the miniaturization of the family structure, the reconfiguration of the economic activities of rural households, and the increasing wealth earned by out-migration [2][3]. From 1978 to 2019, the average housing size per capita has grown from 8.1 m^2 to 48.9 m^2, a more than four-fold increase. Enthusiasm for rural housing construction has also led to problems such as rural housing land sprawl, farmland erosion, and rural hollowing [4][5]. Therefore, since the 1990s, both central and local governments have established rigid quantitative restrictions for rural housing land and rural housing size, while also punishing overdue construction [6][7]. For example, in 2019, it was required by Heyuan Municipality that the total floor numbers in rural housing were restricted to three and a half. In the case of Guizhou Province, residential construction area was limited to 320 m^2 per household in 2021. However, though the regulations for rural housing construction have been established for quite a while, most of them cannot keep pace with rural housing development, and illegal and disordered constructions remain an issue [2][8]. If this inefficiency in spatial resource usage continues, it will be difficult to realize the target of sustainable development raised in the “Rural Development Promotion Law” [9].

Increasingly, scholars and policy makers have attempted to understand the enthusiasm surrounding rural housing construction. Top–down policy failures in controlling rural housing size indicate that policy makers should also consider the villagers’ internal motivations. Consequently, it is of great importance that the villagers’ motivations behind their housing construction behavior are revealed. Past research on rural housing construction has shown that residential improvement needs, membership for future return, and potential rental profits are all motivations for rural housing construction and are enabled by increasing income [3][10][11]. However, researchers have found that acquiring relative status and showing off success can also increase the demands of conspicuous goods such as housing [12]. In this way, housing construction behavior should not be considered an independent household decision, as it is also shaped by social interactions with villagers nearby. Therefore, it is reasonable to ask whether rural housing may actually be a follow-up of the construction behavior of village peers. Moreover, uneven developments in the eastern, central, and western parts of China have been reflected in rural housing [13][14]. Therefore, it is also reasonable to ask whether the peer effect shows regional disparities.

In housing research, housing is customarily regarded as a tool to satisfy residential and investment needs, which are studied under the framework of individual demand and supply [15]. However, it is recently increasingly accepted that housing also plays a role as a status good [16], the demand of which is also influenced by social interactions with other people. The notion that social interactions among group members in shaping individual behavior has been applied to many research fields, but research in housing is still limited [17][18]. Current research on social interactions in shaping housing behavior mainly focus on Western housing markets such as in Spain or the USA [19], and its existence in a Chinese context requires examination. Additionally, whether social actions in housing behavior differ among regions with different development levels needs further research.

This brings us to the aim of this paper. First, notwithstanding the notion of housing as a conspicuous good becoming increasingly accepted worldwide, whether social interactions in groups influence an individual’s housing behavior is still an interesting topic in housing research, especially in the context of rural China. Considering the tight networks in rural China, it is reasonable to infer that individual housing behavior would be influenced by other villagers. Besides, the housing market has not been established in rural China, making villagers less likely to build housing for investment purposes and more likely for residential and status needs. Therefore, this paper examines whether social interactions among villagers, namely peer effects, influence their housing behavior in a rural Chinese context. Second, considering the uneven developments in regions in the past decades, different parts of China may have quite different cultures and development levels. Therefore, this paper also examines the regional disparity in terms of peer effects. By exploring whether social interactions among villagers influence housing size, this research contributes to the body of knowledge regarding rural housing in China. First, it goes beyond earlier

studies on rural housing in China by considering housing not as an independent household decision, but as being shaped by social interactions among villagers nearby. Second, it examines the existence of social interactions in housing behavior in a different context—rural China. Third, it extends the body of literature by examining whether social actions in housing differ among regions with different development levels.

2. Rural Housing in China

Housing is the most expensive item in one's lifetime and is a crucial determinant of the subjective well-being for most people. People need housing in terms of three housing values, namely residential value, investment value, and status value. The housing consumption outcomes such as housing size and housing tenure are considered as a balance between housing market supply and household housing demand [20]. Many theories were raised to explain the household housing outcomes worldwide from both the macro level and micro level. Theories at the micro level include the neoclassic consumption theory, life cycle theory, housing filtering theory, gradient consumption theory, and so on [21]. In general, household needs, household financial capacity, and external market environment would influence the household housing outcomes. Factors such as socio-economic condition (age, education, marital status, family size, household income), social network, housing market condition, and housing policies are usually considered when analyzing household housing outcomes.

In the Western world, the housing market is the main mechanism of both urban and rural housing resource allocation. Most housing research is located in an urban context, but rural housing research is gaining in popularity. In the post-World War II period, rural areas were initially treated as economically dependent on urban areas [22]. Since the 1990s, the local action and endogenous development of rural areas were given more attention [23]. Rural areas' uniqueness of less density, natural environment, and policy context make rural housing quite different from urban housing and worthy of further research. Despite various types of rural areas worldwide, there are some common research topics in rural housing studies including gentrification, landscape preservation, and so on. For example, some rural counties in the United States have gone through the exurbanization process and attracted retirees and second-home owners [24]. In England, rural "locals" often become displaced by counter-urbanization processes, leading to acute affordability issues in rural England [25].

In the context of China, the socio-economic conditions in rural areas are quite different from Western countries. In particular, the housing market has not been established in rural China. Unlike the deregulated housing trade and rent in urban areas and urban villages, the housing trade is still under strict regulation in rural areas. Rural villagers commonly live in self-constructed houses [3]. In this way, rural housing in China is segregated from the urban housing market, and provides residential and status function without an investment function. In rural housing research, both residential land area and housing size can be used to measure the housing outcomes, but housing size was less used for data availability. Therefore, instead of focusing on research of rural housing size, the following paragraph gives a general context on the evolution of rural housing in China.

Rural housing has an extensive history in China [2]. According to growth rate and government policy, the development of rural housing can be classified into three stages. The first stage is the slow growth stage from 1949 to 1978. After the founding of the People's Republic of China in 1949, the Rural Collective Land Property was gradually formed, namely collective ownership and individual using rights, and rural housing was considered individual property that was protected by the constitution [26][27]. During that period, the growth in rural housing was slow due to low income from collective farming jobs and the Chinese traditional norm of generations sharing houses (so-called "*si shi tong tang*"). If villagers lived in a capacious house, it would have been considered as a form of capitalism.

The second stage, from 1978 to 1995, was the period of "both rural housing and the rural population increase". Since the opening-up policy in 1978, China has experienced a rapid transition from a central planning economy to a market-based economy, and the rural ''Household Responsibility System" greatly stimulated rural economic growth. Many farmers became wealthier, and they began to prefer multi-functional, more comfortable, or spacious houses, making the rural household model of "*si shi tong tang*" decline in popularity [2]. Therefore, rural housing demands grew rapidly with the reconfiguration of rural households' economic activities and social aspirations, triggering waves of rural housing construction. From 1978 to 1995, the rural resident population increased from 790 million to 859 million. The average construction area (referred as "average area" in the following) per person also increased from 8.1 m^2 to 21.0 m^2, indicating that rural housing areas were increasing faster than rural populations [28]. However, the enthusiasm for rural housing led to problems such as cultivated land shrinkage, rural hollowing, and land resource waste [2][12][29]. Under these circumstances, China's central government established the national specialized bureau of land management ("*guojia tudi guanliju*"), set restrictions for the application of rural housing land, and created punitive policies against illegal behavior in order to conserve arable land from the excessive occupation of housing construction [6]. For example, the procedure for applying for rural residential land was required by the State Council in 1982, and residential land was limited to one lot per household [3][30]. However, these measures were not so effective because of the difficulties related to supervising rural land.

The third stage was from 1996 to the present, the transitional period of "rural population decrease but rural housing land increase". With the new round of market-oriented economic reforms and the flexible *hukou* system, the rural resident population decreased from 704 in 1996 to 671 million in 2008 [31][32]. Under the condition of large-scale out- migration, a substantial amount of income earned in urban areas was reinvested in rural housing construction. As a result, rural housing land continued to expand despite the shrinking rural population. From 2000 to 2008, rural housing land expanded from 16.53 million ha to 16.66 million ha at an annual growth rate of 0.1%, while per capita rural housing land (PRHL) increased from 204.5 m^2 to 231.0 m^2 at an annual growth rate of 1.6% [4][33][34]. As such, the governments became more aware of farmland protection, so more exact policies and techniques were introduced to supervise rural land. For example, it was made explicit by law that rural households were prohibited from applying for more than one housing lot [35][36], while hollowed villages and idle land were investigated and cleaned up gradually by the Ministry of Land and Resources thanks to the "Opinions about strengthening of rural homestead management" [6]. As a result, rural housing land expansion slowed down a little, whereas the enthusiasm for rural housing did not decrease. From 1996 to 2007, average housing area per capita increased from 21.7 m^2 to 31.6 m^2 at an annual rate of 3.47%. From 2008 to 2019, average housing area per capita increased from 32.4 m^2 to 48.9 m^2 at an annual rate of 3.81%, which was even faster compared to 1996 to 2007 [37]. Meanwhile, multiple floors replaced farmland occupation, gradually gaining popularity among villagers as a way to build large houses. In 2011, the central government initiated a policy to restrict floor numbers and the height of each floor [7], but only recently, local provinces such as Guizhou, Sichuan, and Fujian have begun restricting rural housing to three floors.

The expansion of rural settlements has not been sufficiently curbed by the decreasing rural population, and government regulations are ineffective in controlling housing construction in rural areas, which has aroused great research interest [2][8]. Research on rural housing development is embedded in a wide context and various factors. The first explanation, which is widely accepted, is the increase in socio-economic developmental level caused by rural-to-urban migration. The rapid increase in migration affected the rural economy in the late 1990s [10][11][38][39]. Migrants went to eastern seaboard coastal regions for economic opportunities and sent their remittance back home, making housing improvements economically feasible. Second, some researchers hold the opinion that migrants build housing to ensure their membership due to their future plans for returning. In cities, migrant workers are not granted permanent household registration, are excluded from many social welfare entitlements, and are still subjected to socioeconomic, institutional, and cultural discrimination, making returning home in the future more appealing [40]. Third, villagers close to major urban areas and towns with high land values tend to build large houses for potential rental profits [3][41]. Fourth, villagers build large houses as conspicuous assets and symbols of success [8][12]. As with other institutions in rural areas that lack well-functioning markets, migration can play a complex role in asset accumulation. Following this conformity to building more housing assets [42], villagers can achieve identity and social status within a village and become competitive in terms of marriage options and credit market [43][44][45].

3. Peer Effects and Housing

There is increasing recognition that social interactions, in other words, interdependencies between individuals, play an important role in describing and explaining individual decisions and behaviors. Peer effects have been indicated as important determinants, described as a reference group's influence on individual behavior. Reference groups such as neighborhoods, family, classmates, etc. may include a subgroup of individuals with single ties with others, or all members of the entire group might share the same social norms. The type (directional or reciprocated) and degree (strong or weak) of peer effect may differ among individuals and is determined by ability, effort, or other unobservable factors [46]. Peer effects exist in a wide range of individual behaviors such as education, labor markets, fertility, obesity, etc. [19][47].

Many potential methods have been applied to identify and estimate social interactions in recent years, and one of the most often used models was proposed by Manski [48]. In his model, three effects (endogenous, contextual, and correlated effects) were raised to explain why individuals belonging to the same group tend to behave similarly. Endogenous effects refer to an individual's tendency to vary with the prevalence of certain behaviors within a given group. Exogenous (contextual) effects, however, represent the propensity of an individual to behave in some way that varies with the exogenous characteristics of a group. Correlated effects imply that individuals tend to behave similarly because they have similar individual characteristics in a given group or face similar institutional environments. While others' outcome in the same group affects individual decisions, the inverse is also true. Many studies on peer effects use either school-fixed effects or instrumental variable regression techniques to model endogenous interactions [49]. Recent advances in spatial econometrics make it possible to estimate social interaction effects, which have been shown to improve identification [50][51].

The mechanism through which the peer effect is widespread includes many forms, and conformity is one that can influence preferences [48]. Conformism is the idea that when people evaluate their behavior, if it lacks an objective standard, they will tend to choose groups that share similarities. Conformity makes group members more likely to try their best to blend in with their peer group's surroundings and choose to keep up with the majority of members [52]. In general, conformity preferences in terms of peer effects are regarded as a social norm, and individuals within a peer group will attain potential benefits if they

obey the norms; otherwise, they may suffer by deviating from it. In theory, the incentive origin for conformism stems from peer pressures and partnerships, religion, social status and social distance, and crime [53][54][55][56][57][58][59][60].

However, despite the long history of research about the effect of social interactions on individual behavior, the literature regarding social interactions in housing research is still extremely limited, and mainly focuses on Western housing markets such as Spain, the USA, etc. [61]. A taste for conformity that captures the idea of "keeping up with the Joneses" has been found in fields such as housing price, housing size, housing quality, and housing satisfaction, indicating that individuals view the reference group's decisions on housing consumption and investment to keep up by making similar decisions [18][62][63][64][65][66][67]. Representative research such as that by Ioannides and Zabel estimated neighborhood effects in housing renovation decisions [68]. Beamonte analyzed neighborhood effects in housing price with spatiotemporal autoregressive models [63]. Patacchini and Venanzoni investigated the social interactions in housing quality using detailed data of friendship networks [18]. The effect of social interactions highlights the tendency of individuals to view housing as a symbol of status and prestige [69]. In this sense, housing is not just a good that satisfies dwelling needs, but also a "positional good" that satisfies the desire for relative status. Motivated by positional concerns, all members of a society are working more for wealth and conspicuous consumption to gain status. However, this tendency may result in a "positional treadmill" [69]. As everyone is heading toward the same direction, the relative position of individuals in a society is unchangeable, so no one is happier.

Rural China is not only a suitable case in which to examine the effect of social interactions on housing behavior, but it can also offer new perspectives regarding the regional disparity in terms of peer effects. Compared to Western countries, rural China is more of an acquaintance society, where social interactions among rural households are relatively long-term and stable. As a result, rural households in China are more likely to be influenced by interactive relationships, follow social norms, and desire a favorable social image in their own community [70]. In recent years, village norms depict "the best housing" as a beautiful, modern villa that demonstrates wealth and "face" and helps to attract marriage and business partners [49]. In this context, it is reasonable to predict that rural households may be deeply influenced by their reference group in their housing behavior. Considering the uneven development of China, this influence may have regional disparity. However, because of the state–collective divide in land ownership, the housing behavior in rural areas is quite different from urban areas, and has not been as well studied as in the urban housing market [27][71][72]. Therefore, this paper aims to contribute more evidence for the peer effect in housing and its regional disparity in China.

References

1. Unger, J. The Transformation of Rural China; ME Sharpe: Armonk, NY, USA, 2002.
2. Long, H.; Tang, G.; Li, X.; Heilig, G.K. Socio-economic driving forces of land-use change in Kunshan, the Yangtze River Delta economic area of China. J. Environ. Manag. 2007, 83, 351–364.
3. Wang, H.; Su, F.; Wang, L.; Tao, R. Rural housing consumption and social stratification in transitional China: Evidence from a national survey. Hous. Stud. 2012, 27, 667–684.
4. Li, T.; Long, H.; Liu, Y.; Tu, S. Multi-scale analysis of rural housing land transition under China's rapid urbanization: The case of Bohai Rim. Habitat Int. 2015, 48, 227–238.
5. People's Government of Heyuan Municipality. Available online: http://www.heyuan.gov.cn/gkmlpt/content/0/466/post_466509.html#7348 (accessed on 24 December 2019). (In Chinese)
6. Diao, Q. After new China was founded the countryside house and the homestead system historical vicissitude. China Real Estate 2012, 6, 66–76. (In Chinese)
7. General Office of Guizhou Provincial People's Government. Available online: http://www.qxn.gov.cn/zwgk/zfjg/zgaj_5135056/bmxxgkml_5135059/zajtgl/202110/t20211028_71371473.html (accessed on 28 October 2021). (In Chinese)
8. Song, W.; Chen, B.; Wu, J. Change of rural residential pattern in recent years in China. Econ. Geogr. 2012, 32, 110–113. (In Chinese)
9. Xu, H.; Pittock, J.; Daniell, K.A. China: A new trajectory prioritizing rural rather than urban development? Land 2021, 10, 514–544.
10. Wang, J.; Zhang, Y. Analysis on the evolution of rural settlement pattern and its influencing factors in China from 1995 to 2015. Land 2021, 10, 1137–1152.
11. Zhao, Y. Labor migration and earnings differences: The case of rural China. Econ. Dev. Cult. Change 1999, 47, 767–782.

12. Yang, H.; Li, X. Cultivated land and food supply in China. Land Use Policy 2000, 17, 73–88.
13. Yi, C. The provincial disparity of rural housing condition in China. Rural. Econ. 2006, 12, 103–106. (In Chinese)
14. Song, W.; Chen, B.; Zhang, Y.; Wu, J. Establishment of rural housing land standard in China. Chin. Geogr. Sci. 2012, 22, 483–495. (In Chinese)
15. Arnott, R. Economic theory and housing. In Handbook of Regional and Urban Economics; Mills, E.S., Ed.; Elsevier Science Publishers: Amsterdam, Denmark, 1987; Volume 2, pp. 959–988.
16. Leguizamon, S. Who cares about relative status? A quantile approach to consumption of relative house size. Appl. Econ. Lett. 2016, 23, 307–312.
17. Benhabib, J.; Bisin, A.; Jackson, M.O. Handbook of Social Economics; Elsevier: Amsterdam, Denmark, 2011.
18. Patacchini, E.; Venanzoni, G. Peer effects in the demand for housing quality. J. Urban Econ. 2014, 83, 6–17.
19. Ioannides, Y.M. From Neighborhoods to Nations: The Economics of Social Interactions; Princeton University Press: Princeton, NJ, USA, 2012.
20. Clark, W.A.V.; Deurloo, M.C.; Dieleman, F.M. Housing consumption and residential mobility. Ann. Assoc. Am. Geogr. 1984, 74, 29–43.
21. Wang, Y.; Chai, K.; Zhuo, Y.; Feng, C. Spatial variation of migrant population's housing quality and its determinants in China's prefecture-level cities. Acta Geogr. Sin. 2021, 76, 2944–2963. (In Chinese)
22. Lowe, P.; Ray, C.; Ward, N. Participation in Rural Development: A Review of EUROPEAN Experience; Centre for Rural Economy, University of Newcastle: Newcastle, England, 1998; Available online: http://www.ncl.ac.uk/cre/publish/pdfs/rr98.1a.pdf (accessed on 10 October 2012).
23. Moseley, M. New directions in rural community development. Built Environ. 1997, 23, 201–209.
24. Marcouiller, D.; Lapping, M.; Furuseth, O. Rural Housing, Exurbanization, and Amenity-Driven Development: Contrasting the "Haves" and the "Have Nots"; Routledge Press: London, UK, 2016.
25. Gkartzios, M.; Scott, M. Placing housing in rural development: Exogenous, endogenous and neo-endogenous approaches. Eur. Soc. Rural. Sociol. 2014, 54, 241–265.
26. Li, G.; Rozelle, S.; Brandt, L. Tenure, land rights, and farmer investment incentives in China. Agric. Econ. 1998, 19, 63–71.
27. Ho, P. Who owns China's land? Policies, property rights and deliberate institutional ambiguity. China Q. 2001, 166, 394–421.
28. National Bureau of Statistics. China Statistical Yearbook 2014; China Statistics Press: Beijing, China, 2014. (In Chinese)
29. Xu, W. The changing dynamics of land-use change in rural China: A case study of Yuhang, Zhejiang Provinces. Environ. Plan. A 2004, 36, 1595–1615.
30. Regulations on Management of Rural Housing Land. Available online: https://baike.baidu.com/item/%E5%9B%BD%E5%8A%A1%E9%99%A2%E5%85%B3%E4%BA%8E%E5%8F%91%E5%B8%83%E3%8 (accessed on 13 February 1982). (In Chinese).
31. Chen, J.; Guo, F.; Wu, Y. Chinese urbanization and urban housing growth since the mid-1990s. J. Hous. Built Environ. 2011, 26, 219–232.
32. Li, Y.; Liu, Y.; Long, H. Spatial-temporal analysis of population and residential land change in rural China. J. Nat. Resour. 2010, 25, 1629–1638. (In Chinese)
33. Ministry of Land and Resources of China (MLRC). Reports on China's Land Use Survey and Update in 2008; China Land Press: Beijing, China, 2009. (In Chinese)
34. National Bureau of Statistics. China Statistical Yearbook 2009; China Statistics Press: Beijing, China, 2009. (In Chinese)
35. Land Administrative Law. Available online: http://www.law-lib.com/Law/law_view.asp?id=419 (accessed on 29 August 1998).

36. Urban and Rural Planning Law. Available online: https://baike.baidu.com/item/%E4%B8%AD%E5%8D%8E%E4%BA%BA%E6%B0%91%E5%85%B1%E5%92%8C%E5%9B%BD%E5%
fromtitle=%E5%9F%8E%E4%B9%A1%E8%A7%84%E5%88%92%E6%B3%95&fromid=10220083&fr=aladdin (accessed on 28 October 2007). (In Chinese).
37. National Bureau of Statistics. China Statistical Yearbook 2020; China Statistics Press: Beijing, China, 2020. (In Chinese)
38. Rozelle, S.; Guo, L.; Shen, M.; Hughart, A.; Giles, J. Leaving China's farms: Survey results of new paths and remaining hurdles to rural migration. China Q. 1999, 158, 367–393.
39. Ren, H.; Yuan, N.; Hu, H. Housing quality and its determinants in rural China: A structural equation model analysis. J. Hous. Built Environ. 2019, 34, 313–329.
40. Wong, K.; Fu, D.; Li, C.; Song, H. Rural migrant workers in urban China: Living a marginalized life. Int. J. Soc. Welf. 2007, 16, 32–40.
41. Chen, Z.; Liu, X.; Lu, Z.; Li, Y. The expansion mechanism of rural residential land and implications for sustainable regional development: Evidence from the Baota district in China's Loess Plateau. Land 2021, 10, 172.
42. Yuan, J.; Yang, G.; Zhu, J. Driving mechanism of rural residential area change--based on investigation into farmers in Xiaonan District of Hubei Province. Econ. Geogr. 2008, 28, 991–994. (In Chinese)
43. Ming, J.; Zeng, X. Migration and housing investment in rural China-based on the survey in Guangdong province. Chin. J. Popul. Sci. 2014, 4, 110–120. (In Chinese)
44. Sargeson, S. Subduing "the rural house-building craze": Attitudes towards housing construction and land use controls in four Zhejiang villages. China Q. 2002, 172, 927–955.
45. Fang, L.; Tian, C. A good house gets you a good wife: Rural housing investment in marriage matching. China Econ. Q. 2016, 15, 571–596. (In Chinese)
46. Winston, G.; Zimmerman, D. Peer effects in higher education. In College Choices: The Economics of Where to Go, When to Go, and How to Pay for It; Hoxby, C.M., Ed.; University of Chicago Press: Chicago, LL, USA; London, UK, 2004; pp. 395–424.
47. Gaviria, A.; Raphael, S. School-based peer effects and juvenile behavior. Rev. Econ. Stat. 2001, 83, 257–268.
48. Manski, C.F. Identification of endogenous social effects: The reflection problem. Rev. Econ. Stud. 1993, 60, 531–542.
49. Fletcher, J.M. Peer influences on adolescent alcohol consumption: Evidence using an instrumental variables/fixed effect approach. J. Popul. Econ. 2012, 25, 1265–1286.
50. Ajilore, O.; Amialchuk, A.; Xiong, W.; Ye, X. Uncovering peer effects mechanisms with weight outcomes using spatial econometrics. Soc. Sci. J. 2014, 51, 645–651.
51. Lin, X. Identifying peer effects in student academic achievement by spatial autoregressive models with group unobservables. J. Labor Econ. 2010, 28, 825–860.
52. Festinger, L. A theory of social comparison processes. Hum. Relat. 1954, 7, 117–140.
53. Akerlof, G.A. Social distance and social decisions. Econom. J. Econom. Soc. 1997, 94, 1005–1027.
54. Kandel, E.; Lazear, E.P. Peer pressure and partnerships. J. Political Econ. 1992, 100, 801–817.
55. Iannaccone, L.R. Sacrifice and stigma: Reducing free-riding in cults, communes, and other collectives. J. Political Econ. 1992, 100, 271–291.
56. Berman, E. Sect, subsidy, and sacrifice: An economist's view of ultra-orthodox Jews. Q. J. Econ. 1998, 115, 905–953.
57. Akerlof, G.A. A theory of social custom, of which unemployment may be one consequence. Q. J. Econ. 1980, 65, 749–775.
58. Bernheim, B.D. A theory of conformity. J. Political Econ. 1994, 102, 841–877.
59. Glaeser, E.L.; Sacerdote, B.; Scheinkman, J.A. Crime and social interactions. Q. J. Econ. 1996, 111, 507–509.
60. Patacchini, E.; Zenou, Y. Juvenile delinquency and conformism. J. Law Econ. Organ. 2012, 28, 1–31.

61. Jackson, M.O. Social and Economic Networks; Princeton University Press: Princeton, NJ, USA, 2008; Volume 3.
62. Ioannides, Y.M.; Loury, L.D. Job information networks, neighborhood effects, and inequality. J. Econ. Lit. 2004, 42, 1056–1093.
63. Beamonte, A.; Gargallo, P.; Salvador, M. Analysis of housing price by means of STAR models with neighborhood effects: A Bayesian approach. J. Geogr. Syst. 2010, 12, 227–240.
64. Helms, A.C. Keeping up with the Joneses: Neighborhood effects in housing renovation. Reg. Sci. Urban Econ. 2012, 42, 303–313.
65. Aronsson, T.; Mannberg, A. Relative consumption of housing: Marginal saving subsidies and income taxes as a second-best policy? J. Econ. Behav. Organ. 2015, 116, 439–450.
66. Bayer, P.; Mangum, K.; Roberts, J.W. Speculative fever: Investor contagion in the housing bubble. Am. Econ. Rev. 2021, 111, 609–651.
67. Cooper, C. The house as symbol of self. In Environmental Psychology: People and Their Physical Settings, 2nd ed.; Proshansky, H.M., Ittelson, W.H., Rivlin, L.G., Eds.; Holt, Rinehart and Winston: New York, NY, USA, 1976; pp. 435–448.
68. Ioannides, Y.M.; Zabel, J.E. Neighborhood effects and housing demand. J. Appl. Econom. 2003, 18, 563–584.
69. Frank, R.H. The demand for unobservable and other nonpositional goods. Am. Econ. Rev. 1985, 75, 101–116.
70. Ling, C.; Zhang, A.; Zhen, X. Peer effects in consumption among Chinese rural households. Emerg. Mark. Financ. Trade 2018, 54, 2333–2347.
71. Hang, B.; Xiu, L. Housing comparison and household consumption. Stat. Res. 2015, 32, 54–61. (In Chinese)
72. Wei, S.J.; Zhang, X.; Liu, Y. Status competition and housing prices (No. w18000). Natl. Bur. Econ. Res. 2012.