agriculture

MDPI

Article

How Do Support Pressure and Urban Housing Purchase Affect the Homecoming Decisions of Rural Migrant Workers? Evidence from Rural China

Lei Niu [1,2], Lulu Yuan [1], Zhongmin Ding [2] and Yifu Zhao [1,*]

[1] Institute of Agricultural Economics and Development, Chinese Academy of Agricultural Sciences, Beijing 100081, China; 82101209801@caas.cn (L.N.); 82101221517@caas.cn (L.Y.)
[2] College of Economics and Management, Southwest University, Chongqing 400715, China; dzm@swu.edu.cn
* Correspondence: zhaoyifu@caas.cn; Tel.: +86-10-8210-6165

Abstract: Talent revitalization is the basis of rural revitalization, and the return of migrant workers to their hometowns is a critical way to improve rural human capital. Based on the perspective of individual–family interaction and collaboration, we constructed a theoretical model for maximizing the net benefits of rural migrant workers. Then, we use it to explore the impact of family support pressure and urban housing purchase on individuals' homecoming decisions. Firstly, we find the odds ratio of migrant workers with support pressure to return home is 14.013 times higher than those without, and the odds ratio of migrant workers with urban housing is 42.94% lower than those without. Secondly, in the process of supporting, the family, as a link between individuals and rural society, can enhance the connection for migrant workers, thus promoting their return behavior. The mediating effect of hometown connection is 1.342, accounting for 50.83% of the total effect. However, buying a house in the city reduces individuals' homecoming behaviors by encouraging "trailing spouse". Thirdly, individuals' homecoming intention is not consistent with their behavior. The moderating effect of a future house purchase plan changes the influence of support pressure on individuals' intention to return home to some extent. Finally, we should further strengthen rural infrastructure construction and elderly care service supply to reasonably guide capable and willing talents to return to the township. This study provides some implications for the revitalization of rural talent.

Keywords: support pressure; urban housing purchase; rural migrant workers; homecoming decision; rural revitalization

check for updates

Citation: Niu, L.; Yuan, L.; Ding, Z.; Zhao, Y. How Do Support Pressure and Urban Housing Purchase Affect the Homecoming Decisions of Rural Migrant Workers? Evidence from Rural China. *Agriculture* **2023**, *13*, 1473. https://doi.org/10.3390/agriculture13081473

Academic Editor: Efstratios Loizou

Received: 6 July 2023
Revised: 21 July 2023
Accepted: 23 July 2023
Published: 25 July 2023

Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

1. Introduction

An important way to revitalize rural talent is to give full play to the talent advantages of returning groups. In 2020, China's floating population reached 375.82 million, an increase of 69.73 percent over 2010 [1], which means that China's population flow trend is more obvious and the floating population scale is further expanding. In the future, China would "build a beautiful and harmonious countryside that is desirable to live and work in", so that farmers could live a modern and civilized life in the local area. However, it would be difficult to achieve only by relying on farmers in the villages. Compared with ordinary farmers, rural migrant workers are more familiar with urban and rural environments. They have the dual identities of farmers and urban industrial workers and meet the dual needs of rural talent revitalization for the labor force to have the feelings of the agriculture, the rural areas, and rural people (known in Chinese under the name of "San Nong"), and bring in the professional skills [2,3]. As the most important source of talent and construction subjects to promote the comprehensive revitalization of rural areas, their ultimate location and role deserve attention.

Most relevant studies have affirmed the positive role of migrant workers returning to their hometowns, arguing that guiding some farmers to return to the countryside can give full play to the "return effect" of the returning group and make up for the urgent demand for labor force in the outflow area with the compensatory function of their human capital [4–6]. However, how to better attract migrant workers back to their hometowns is a hotly debated topic, and scholars have explored the influencing factors from different perspectives. For example, some studies focused on the influencing factors at the macro level of cities [7], and found that it is difficult for migrant workers to obtain identity recognition and corresponding social security [8,9], which leads to temporary and unstable migration [10,11]. Other studies paid attention to the influencing factors at the village level and argued that the process of rural labor transfer to urban areas is always accompanied by the phenomenon of returning to the hometown [12,13]. The vast majority of migrant workers maintain an "amphibious" life mode between urban and rural amid homesickness and family development [14,15]. However, most of these studies set the farmer as a rational "economic man", and believe that their migration is a strategy to accumulate economic capital, disperse family risks and improve human capital [16]. For example, Todaro (1969) has formulated an economic behavioral model of rural urban migration. In the model, the decision to migrate from rural to urban areas is functionally related to two principal variables: the urban rural real income differential and the probability of obtaining an urban job [17]. Dustmann has presented a model that explains migrations as decisions. The basic framework is a dynamic Roy model in which a worker possesses two distinct skills that can be augmented by learning by doing [18]. The strength of human capital determines the employment opportunities and expected income of labor in the places of inflow and outflow, and then affects their migration decisions. The human capital with a high degree of correlation with the place of return is conducive to obtaining better employment opportunities and working income in their hometown, and the human capital with a high degree of correlation with the destination of migration is conducive to obtaining better employment opportunities and working income outside [19].

Sustainable development is crucial for balanced development between cities and rurality. In 1996, China officially adopted sustainable development as the country's basic development strategy. China's understanding of the theory and practice of sustainable development is different from that of developed countries, which also represents the general requirements and interests of developing societies. On the whole, the theoretical core of sustainable development has two basic main lines, that is, for the external system, it emphasizes that the harmonious coexistence between man and nature should be realized, and for the internal system, it advocates that a good relationship between people should be achieved [20]. This shows that sustainable development does not only emphasize the development of the economic field, but also attaches importance to the needs of human beings. This concept provides a unique research perspective for effectively solving the mobility of migrant workers and rural revitalization [21]. It is important to note that innovations are undoubtedly crucial resources throughout sustainability transitions [22], and rural talent revitalization needs to rely on the eve of creativity. The creative industries are now being harnessed as part of economic development strategies—as a 'rural regeneration tool'. A small number of academic and policy interventions beyond metropolitan centers has begun to consider the rural creative economy [23], and arguing that it is urban culture which is staid and conventional, with the countryside the true site of innovation [24]. Movements of creative workers to rural locations to live and work have been observed; in policy discussions, the new creative industries agenda in rural areas has overwhelmingly tended to have been associated with the growing trend for so-called 'lifestyle migration' [25]. Here, relocation decisions are presented as not being primarily economically motivated but rather are a result of a complex set of considerations often bundled together in concepts like 'quality of life' or 'liveability' [23]. Therefore, there are some scholars who advocate that arts and cultural resources should be used to promote new rural employment and economic opportunities in the future [26]. To some extent, this also reflects the use of the

unique ecological value of the countryside. Taken as a whole, these studies provide insights into the path to attract migrant workers to return home. However, research based on the perspective of dual interaction caused by economic and emotional ties between families and individuals is still insufficient.

In fact, the return of migrant workers in China itself contains family and social attributes. First of all, the family is the basic unit of production and consumption in rural China. In most families, the members share common property, have a common budget, and live together by division of labor [27]. To increase the overall household income, the family will inevitably make the most effective distribution of its main labor force and auxiliary labor force; thus, most Chinese rural families form a "half-working and half-farming" household income mode [28]. Second, although family forms vary, the essence of the family remains the same. In addition to the economic function, the family also has emotional attributes. To some extent, the family can be regarded as an "alliance" that combines economic and emotional factors [29–31]. On the one hand, there is a widespread pattern of rural families in China where people in the countryside provide necessary economic support to migrant workers in cities, while most of the migrants give economic feedback to the family in the form of remittances [11]. On the other hand, families have a strong emotional support role, and family members' emotional ties to each other grow in their daily interactions [32]. In other words, the interaction and collaboration between individuals and families is not only reflected in the economic level, but also in the fact that family is an important source of emotional support for migrant workers in cities. Correspondingly, returning farmers can also significantly improve the psychological status and life satisfaction of left-behind parents [33,34].

The life course theory points out that the occurrence of important events will affect the family members' habitual activity pattern, thus leading to the "turning effect" [35–37]. There is a certain dialectic relationship between the life course of a family and the behavior choices of family members [38], which also determines that individual migration decisions must be affected by the family. We mainly select two important events in the life course of individuals and families for analysis. First, intergenerational support obligations are one of the reasons for maintaining the family system. In 1982, the Constitution of China was amended, and "adult children must support and assist their parents" was included in the chapter of "Basic rights and obligations of citizens", which has been retained ever since [39]. This suggests that supporting the elderly is a necessary reward for the emotional support the family has always provided. Therefore, it has an important impact on the homecoming decision of migrant workers. Second, the demand of urban housing purchase is the individual's urban development intention based on the rational judgment of economic income and employment opportunities between urban and rural areas [40]. It is also an important aspect affecting the individual's decision to return to their hometown.

Thus, we mainly discuss two questions. First, we explore the homecoming decision of rural migrant workers when they face support pressure and urban housing purchase demand, and what is the interaction effect between the two. At the same time, what are the specific effects of individual, family, village and other characteristics on individual homecoming decisions. The second is to explain how family as a bond affects their motivation to return, and further consider the moderating role of future urban development intentions. Of course, we also examine the impact of various resource endowment differences on the returning behavior of rural migrant workers. The solution to the above problems not only provides a new analytical perspective for the study of the motivation of rural migrant workers to return to their hometown, but also helps to further deepen the interpretation of the homecoming decisions of rural migrant workers at the moment, and also provides the theoretical basis and intellectual support for the revitalization of rural talents.

2. Literature Review and Theoretical Framework

2.1. Literature Review

Without a doubt, the influencing mechanism of the return decision of rural migrant workers is complex. Previous researchers have mainly focused on economic and social dimensions, and have given explanations, respectively, from the perspectives of individuals, families, social characteristics and the institutional environment [41–43], which provided an important theoretical and empirical reference for this paper. Overall, the main perspective of the two types of studies was to view the decision of returning to their hometown as the result of the rational choices of individuals or families. Studies from the perspective of individual decision making were mostly based on neoclassical economic theories and believed that migration behavior is a rational choice for individuals to pursue profit maximization [44], while the decision to return to their hometown is the result of a comprehensive consideration of the actual income gap between urban and rural areas, the chance to find a job after entering the city and the cost of migration [45]. The return behavior occurs only when the expected income target is not achieved and the migration benefits are lower than the cost [46]. However, from practical observation, the migration of the rural labor force in China does not necessarily flow from "a high place" to "a low place" like the flow of water. Individuals are not completely independent, and their migration decisions depend on the larger units (such as families) composed of interconnected people [47].

The new migration economics theory changes the neo-classical theoretical assumption that ignores the constraints of social structure, and it believes that families rather than individuals are the decision makers of migration [48]. Migration is not only a comprehensive decision for individuals and their families to pursue income maximization and risk minimization but also a rational behavior choice to overcome multiple constraints such as social structure and market system [49–52]. When the family is viewed as a whole, the migration behavior of some family members can be considered as a Pareto improvement strategy, whether based on risk diversification or the pursuit of higher and more diversified income, which has inspired the academic circle to rethink the migration behavior of migrant workers in developing countries.

In recent years, with the increasing trend of family migration in rural areas, more and more scholars have conducted research using the new migration economics theory and family factors are naturally included in the analysis of individual migration decisions [53,54]. Among them, the restriction of the children of migrant workers entering school in cities, the housing situation in cities, the situation of left-behind family members and other factors are the main aspects of the impact of family resource differences on the return of rural migrant workers [33,55–57]. As the smallest unit of social structure, the family is the result of the subjective and active formation of members with cognitive ability based on certain rules and resources, and is also the intermediary through which individual actions of family members can be carried out. This determines that families play a dominant role in individual migration decisions, especially at key moments and important stages in the family life cycle [58–60]. Although many studies have made comprehensive analyses of the factors influencing the willingness of rural migrant workers to return to their hometowns [61], the studies that take support pressure and urban housing purchase as the core independent variables are not sufficient. The few studies involving these two variables included them in the analysis as control variables [62], and concluded that migrants will be "forced" to return to their hometown when facing increased support pressure or urban housing demand [63].

Firstly, although support pressure is a variable often ignored in economic cost and previous studies, it is closely related to individuals' decisions to return home. For urban areas, due to the relatively sound social security system, there is no economic cost for children to support the elderly. China's rural elderly prefer home care in the village, which makes the situation of most rural migrant workers in the face of elderly support needs more complicated. In this case, whether migrant workers choose to return home or continue to stay in the city needs more in-depth discussion. Research showed that the influence of support pressure on migrant workers' decision to return home is not always in the same

direction. When parents in rural areas have great support needs, some migrant workers may choose to return home based on emotional traction. However, the appearance of support pressure reduces family income and increases the living burden of young people. At this point, they may choose to give up giving their family emotional support and stay in the city to obtain a higher level of income [64,65].

Secondly, it has become a trend for rural families to buy houses in the city. Although the new generation of migrant workers has a stronger intention to stay in the city, the most critical indicator of whether they can truly integrate into the city and realize permanent migration is whether they have a house and a stable job in the city. Most scholars have pointed out that rural migrant workers with house purchases in cities are more capable of settling down in the city, and their willingness to return home is relatively low. However, urban housing price has an "inverted U-shaped" influence on labor inflow, which increases first and then decreases. When they have demand for housing in cities, the decision of migrant workers' migration remains to be discussed. Existing empirical studies have not formed a consistent understanding of this problem. Although many scholars believe that migrants with higher levels of human capital, better employment status, higher wage income, and homeownership are less likely to return [66,67], other studies have come to the opposite conclusion [19]. At the same time, the inflow of labor into cities is largely due to the attraction of better public services in cities. The "voting with feet" theory proposed by Tiebout is the first study to apply public services to the population migration model, and he assumed that people would move to areas with higher levels of public services [68]. Since then, the important role of basic public services in the decision making of labor mobility has been confirmed in many countries and regions [69–72]. However, there are also many scholars who dispute whether the mechanism of "voting with feet" is applicable in China. They believe that rural laborers who work in cities do not enjoy the same public goods such as compulsory education and health care as urban residents [73]. With the reform of China's household registration system in recent years, the coverage of much social welfare attached to the household registration system has been gradually relaxed, and the equalization of basic public services has achieved initial results. Therefore, the impact of public services in population mobility may be changed.

Finally, most studies have been focused on the promoting effect of farmers moving to cities on urbanization, while rural areas occupy a more secondary position, which to some extent ignored the significance of guiding some people back to their hometowns for rural revitalization. In terms of research content, a large number of studies have discussed the practical restrictions faced by migrant workers in cities, but relatively few studies have clearly defined their behavior of returning home. Instead, they only stayed on the study with the intention of returning home and did not deeply explore the mechanism that affects the decision of returning home. In terms of methods, the research on the influencing factors of return flow was mostly based on the binary selection model, while the research on the revitalization of rural talent in China involved mostly theoretical explanations. This suggests that there is a lack of in-depth exploration focusing on the individual and family level to clarify the fundamental problems that limit the return of current talents. At the same time, in terms of variable selection, most previous studies regarded family endowment as a unified whole and did not discuss the impact of major events in the life course of the family on individuals' homecoming decisions separately. Based on the basic premise of the new migration economics theory, this paper tries to break out of the limitation that individual decision making is only determined by himself. Of course, this article is not intended to study the uniform decision making of the whole family. Considering the interaction and collaboration between individuals and families, this paper tries to focus on the different choices of Chinese migrant workers' homecoming when facing important family events and reveals the shortcomings of the current rural areas in attracting talent.

2.2. Theoretical Framework and Hypothesis

Based on the above analysis, this paper holds that there are both economic and emotional ties between individuals and families. The decision of rural migrant workers to return home is not only a personal development choice and a rational decision but is also influenced by the continuous interaction and concerted actions among family members. In other words, the individual's final homecoming behavior is the result of multiple mixed rational choices based on economic rationality, social rationality and survival rationality under the interweaving of various deterministic and uncertain factors [11]. Furthermore, as important nodes in the personal life course and family development cycle, fulfilling the support obligation and buying an urban house are two important factors affecting the decision of migrant workers to return home. Therefore, this paper constructed a theoretical model for maximizing the net benefits of rural migrant workers and tried to incorporate family emotional support and individual economic rational pursuit into the model.

The model assumed that rural migrant workers had two choices: staying in the city or returning to their hometown, and their life goals were to maximize the net benefits mixed with economic income and emotional gain. Next, from the perspective of interaction and coordination between individuals and families, when rural migrant workers faced two important events, namely, support pressure or urban housing demand, their decision to return home was discussed. To be specific, we considered a rural migrant worker i, who went out to work in the city in year T_i, and the flow time was $t - T_i$ by the t period ($t > T_i$). Then, in period t, his mobility option O included either returning home ($O = R$) or staying in the city ($O = F$). The education level of migrant worker i was E_i, and E_i was a random variable distributed in the interval $[0, 1]$. Many scholars found that education is an important factor affecting the willingness of migrant workers to return home [74–76]. In general, people with more education have a more stable job, higher income and better risk–coping ability [77]. It was assumed that the average income of the migrant worker i in the city was I_t, and the average income he received in his hometown after returning was I_t^0. Meanwhile, it was assumed that there was an assimilation effect, that is, the actual income gained increased with the amount of time an individual spent in the city [78]. So, if the migrant worker i stays in the city, he will obtain an income of $(t - T_i)E_iI_t$, and if he stays in his hometown to work during this period, he will obtain an income of $(t - T_i)E_iI_t^0$.

Firstly, it was assumed that every decision-making subject i was a "rational economic man" whose goal was to maximize his own benefits. The cost of the individual i staying in the city was C, which was divided into the potential psychological cost C_1 of leaving home and the psychological cost C_2 brought by the change in family needs. Specifically, $C_1 = (t - T_i)c_i$ represented the increase in psychological costs due to the time $t - T_i$ that an individual left home [79], but this did not include the increase in psychological costs related to the family. $C_2 = F_i(1 - E_i)$ represents the change in psychological cost caused by his choice to stay in the city when his family was faced with support pressure and needed to buy a house in the city due to marriage, children's schooling and other issues. So, $C = (t - T_i)c_i + F_i(1 - E_i)$.

Secondly, we assumed that the expenditure of individual i when living in the city was P_t, while that of individual i when living in his hometown was P_t^0. These expenditures included the necessary expenditure of personal life, family support, human relations, etc., and, generally, $P_t > P_t^0$. At this stage, the wide gap between urban and rural areas is most intuitively characterized by a wide gap in infrastructure and public services, covering different aspects such as transportation, health care and networks. Rural migrant workers tend to gravitate towards cities with higher quality infrastructure and public services. We assume that individual i receives a net public service of B by staying in the city compared to returning to the countryside. In general, the public services that migrant workers can obtain are much smaller than those of urban residents, and the net public services they receive in cities are often positively correlated with the level of education [73].

Finally, the greatest emotional gain of rural migrant workers generally came from the family. It was assumed that the family emotional support they can receive in the city was

M_1, and that the one they can receive in the hometown was M_2. Since most rural migrant workers cannot fully integrate into urban life [80], relatively speaking, they felt more alone in the city and received less emotional support, that is, $M_2 > M_1$ was a common situation. It is worth noting that economic income plays a more dominant role in an individual's choice of returning home and a family's decision on their division of labor. As a decision-making unit, the ultimate goal of the family is to maximize the benefits for the whole family. As a result, it is inevitable that in the individual–family interaction, the family's emotional support of someone may be compressed, so that he can only use other sources of emotion to replace them. Based on the above definition, the net benefits $R_{it}(E_i, F_i)$ of migrant worker i who chose to stay in the city in period t relative to returning home can be expressed as follows:

$$R_{it}(E_i, F_i) = (t - T_i)E_i(I_t - I_t^0) - [(t - T_i)c_i + F_i(1 - E_i)] - \left(P_t - P_t^0\right) + BE_i + (M_1 - M_2) \quad (1)$$

Equation (1) is composed of five items. The first item is the net income of the rural migrant worker i in the city, the second item is the sum of psychological costs of the individual i choosing to stay in the city, the third item is the net expenditure of the individual i choosing to stay in the city, the fourth term is the net public service that individual i can obtain by choosing to stay in the city compared to living in the countryside, and the fifth item is the emotional support individual i can receive in the city compared with the rural area. For the rural migrant worker i, his urban residence time $t - T_i$ and education level E_i were all fixed; so, F_i determined the slope of the net-benefits curve. The choice of rural migrant worker i must satisfy $\max\{0, R_{it}(E_i, F_i)\} = R_{it}(E_i, F_i)$. That is to say, staying in the city was bound to have higher net benefits than returning.

Figure 1 illustrates the above situation. In Figure 1, the horizontal axis represents the education level E of migrant workers, the vertical axis represents the net benefits, and the line represents the net benefits $R_{it}(E_i, F_i)$. For migrant workers, $R_{it}(E_i, F_i) > 0$, that is, the net benefits line is above $R = 0$. In other words, the net benefits of migrant workers choosing to stay in the city were greater than the net benefits of staying in the countryside, as shown by the black solid line O in Figure 1. At this time, if there are changes in the needs of the family, such as supporting the elderly and buying housing in the city, they will bring the effect of increasing all kinds of expenses and psychological costs to the migrant workers. Then, the decision of whether rural migrant workers will take their families to the city or back hometown depends mainly on the comparison between the increase in expenditure, the change in personal psychological cost and the emotional support available. A detailed discussion will follow.

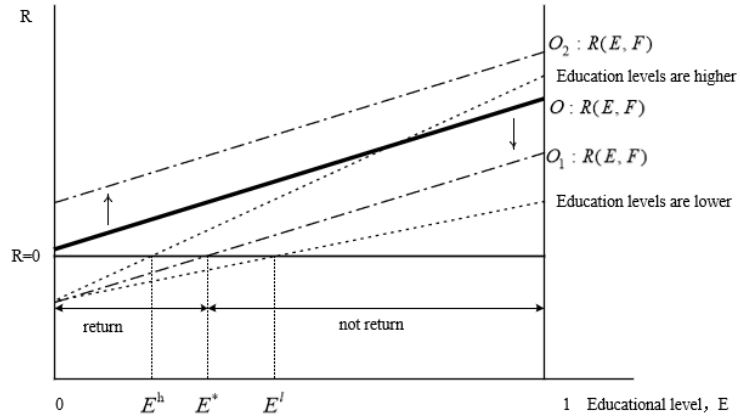


Figure 1. Changes in returning decision of rural migrant workers.

First, we analyzed the situation when an individual faced support pressure. Under the dual influence of the insufficient supply of elderly care services and the traditional concept of "raising children for old age" in China's rural areas, for rural migrant workers, there

was an unavoidable support obligation that needed to be responded to as soon as possible. In the first case, if the rural migrant i chooses to continue to stay in the city alone, the appearance of support pressure will make the individual psychological cost C_2 continue to increase, and the emotional support M_1 that he can receive from his family after staying in the city will decrease, thus reducing the net benefits $R_{it}(E_i, F_i)$. The net-benefits curve will eventually intersect $R = 0$ at the point $(E^*, R_{it}(E_i, F_i))$, as shown by dotted line O_1 in Figure 1. It was easy to find that the net benefits of migrant workers with education level distribution between $[0, E^*]$ staying in the city were less than 0; so, these people would choose to return to their hometown. At the same time, people with low education levels had a worse ability to deal with family changes and lower access to public services, which led to the psychological benefits of staying in the city being less than the psychological costs. So, the increase in C_2 is larger, and the intersection point of the net-benefits curve is $\left(E^l, R_{it}(E_i, F_i)\right)$, which led to an increase in the number of people who chose to return home. On the contrary, for migrant workers with higher education levels, their income was more stable, and their ability to adapt to changes in family needs was stronger, and they were more likely to be attracted by higher public services in cities. So, the number of people forced to return home would be relatively small. As shown in Figure 1, the intersection point of the net benefits curve is $\left(E^h, R_{it}(E_i, F_i)\right)$.

In the second case, we discussed the situation if migrant workers in the city choose to bring old people with support needs to the city. On the one hand, relative to the state of maintaining the old man in the rural pension and children in the rural school, the emotional support M_1 he received would increase, and the net emotional support he received after all the family moved out would reach 0. On the other hand, due to the higher cost of living in the city, the net expenditure would meet $\Pi_t \equiv \left(P_t - P_t^0\right) > 0$. If the whole family moves out, the net expenditure will continue to increase, and for families with different resource endowments, the net benefit line moved downward to different degrees. For example, families with higher income levels could provide more economic support for individuals in cities. At this time, rural migrant workers would be repeatedly measured between the emotional support they obtained and the actual living expenses, and they finally decided to maximize the family benefit. Therefore, we propose the following hypotheses:

H1. *When facing support pressure, rural migrant workers were more likely to return home.*

H1a. *When faced with support pressure, rural migrant workers with lower education levels were more likely to return home.*

H1b. *When facing support pressure, the difference in household income would affect migrant workers' decision to return home.*

Second, we considered the changes in individual homegoing decisions of rural migrant workers when they needed to buy houses in cities due to problems such as children's education and marriage. If migrant workers had already bought houses in cities during the survey, it indicates to some extent that they had the basic conditions to integrate into urban life through accumulation in the early stage and had a stronger desire to develop in the city in the future. Specifically, on the one hand, it indicated that the individuals who went out have a stable life in the city, and the C_2 was less affected by the change in housing demand. In addition, because of his gradually enhanced sense of belonging in the city, he could receive more emotional support from other sources, which increased M_1 and weakened the role of family emotional support to a certain extent. On the other hand, buying a house in the city reduced the psychological cost C_1 of migrant workers leaving their hometown, and the net benefit $R_{it}(E_i, F_i)$ of migrant workers staying in the city was generally increased, as shown by dotted line O_2 in Figure 1.

For the families who have not yet bought houses in cities, the emergence of urban housing demand will increase household expenditure P_t and P_t^0. Generally speaking, buying a house in the city was more expensive than buying a house in the hometown. Therefore, for migrant workers, their net family expenditure $\Pi_t \equiv \left(P_t - P_t^0\right) > 0$, resulting

in a decrease in net benefit $R_{it}(E_i, F_i)$. Similarly, the decision to buy a house in the city was also different for people with different levels of education. A higher level of education meant a more stable income for an individual, and it was often matched by his or her spouse's level of education; so, the cost of integrating into the city was relatively lower. From this point of view, the emergence of urban housing demand for the group with higher education levels may not affect their decision to return home. Currently, most migrant workers in China relied on financial support from their families to buy homes in cities. Under such circumstances, some rural migrant workers with lower household income may choose to return to their hometowns due to the pressure of house purchase, that is, they cannot afford the high net expenditure. This is shown by the dotted line O_1 in Figure 1.

In contrast, migrant workers with a higher household income had less economic pressure. Under the dual action of urban gravity and rural thrust, their willingness and ability to stay in the city would be higher; so, fewer people would return home. Therefore, we propose the following hypotheses:

H2. *Rural migrant workers who had bought homes in cities were less likely to return.*

H2a. *The difference in education level would affect the urban house-buying behavior of rural migrant workers and their decision to return home after house buying.*

H2b. *The difference in household income would affect rural migrant workers' house-buying behavior in the city and their decision to return home after house buying.*

Further discussion held that having a city house purchase plan in the next five years was a strong representation of an individual's intention to develop in the city. Therefore, it was worth discussing how the interaction between individuals' urban development intention and family support pressure influenced their homecoming decisions. For those who plan to buy houses in cities in the next five years, on the one hand, their family income was higher, which could support their urban development intention and eventually realize permanent migration. On the other hand, they were the more stable income group. The above two characteristics made their psychological cost C_1 of leaving home a downward trend. In the end, their decisions to return home depended on the repeated comparison between the individual's intention to develop in the city, the level of economic income and the family expenses they can afford. At this time, the mobility decision was no longer just whether to return home or not, but there would be a trend of returning from first-tier cities to second-tier cities or counties. Therefore, we propose the following hypotheses:

H3. *For migrant workers who have not yet bought houses in cities, their future housing purchase plans will affect the effect of support pressure on the intention to return home.*

In addition, as the smallest unit in rural areas and the core of individual decision making, what mechanism did the family use to influence the rural migrant workers' returning home decision? Firstly, the migration network theory points out the role of individual social networks in migration decision making. The "family" connecting urban and rural areas had the unity of substance and meaning. The family could play its own bonding role so that migrant workers could increase their social interactions and emotional support with the village through economic and emotional interactions with their families. This would narrow the social distance between them and rural areas, enhance their trust in rural society and enhance the willingness of rural migrant workers to return home [81]. At present, most rural elderly people currently preferred to age at home in the countryside. When the family needed support, the psychological cost C_2 of the migrant worker i would continue to rise. If he wants to fulfill his support obligations, he will need to return home more frequently, which will lead to an increase in his consumption in areas such as transportation, ultimately increasing net expenditure. At the same time, in the process of many trips between urban and rural areas, migrant workers would continue to strengthen their connection with the countryside through interaction with their families. In the end, the increase in emotional support M_2 obtained by individuals may decrease the net-benefits

curve to some extent, as shown by the dotted line O_1 in Figure 1. Therefore, we propose the following hypotheses:

H4. *When individuals were faced with family support needs, families could enhance the social connection between rural migrant workers and the countryside through their own bonding role, to promote the return of rural migrant workers to their hometowns.*

Secondly, if the rural migrant *i* already buys houses in cities, his spouse may be more willing to move with him [82,83]. This will increase his family's emotional support M_1 in the city, and his family's net income will also increase due to the increase in the urban labor force, thus further increasing his intention to stay in the city. The dotted line O_2 is shown in Figure 1. Thus, we propose the following hypotheses:

H5. *After buying a house in the city, the spouses of migrant workers were more likely to go to the city together, thus affecting their intention to return home.*

Finally, combining the theoretical model and the research hypothesis, Figure 2 presents the influence-mechanism diagram of the homecoming decision from the perspective of individual–family interaction and coordination. This provided a clear research idea for the following discussion on the impact of support pressure and urban house purchase on individuals' decisions to return home. The homecoming decision in this paper included actual homecoming behavior and future homecoming intention, and we conducted an empirical analysis of both the former and latter.

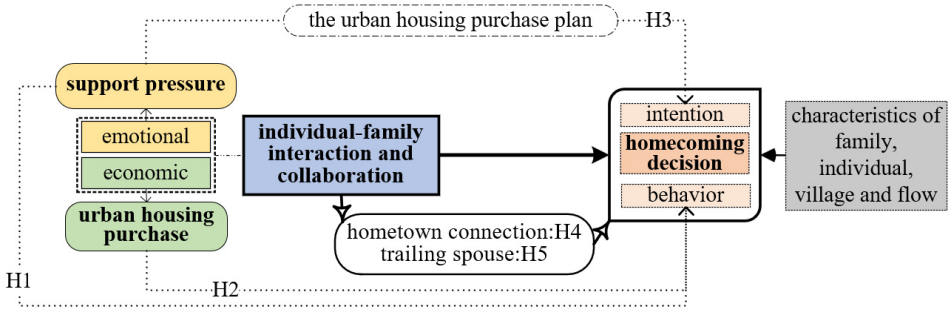


Figure 2. Theoretical framework.

3. Methods and Data

3.1. Data Source

This study used micro-level data from the 2022 Survey for Agriculture and Village Economy (SAVE). This survey is launched and conducted annually by the Institute of Agricultural Economics and Development (IAED) at the Chinese Academy of Agricultural Sciences (CAAS) [84,85]. Since 2012, the survey sites in the database have covered 37 counties, 65 towns and 292 villages in 12 provinces of China, and the survey sites have been gradually enriched. Moreover, it also includes surveys of rural households and villages, which provide abundant information about the rural households, household income, public service supply, talent and organization construction, villages, etc. The data obtained by using this questionnaire have been tested by practice and is scientific to a certain extent. As the core issue of this study was the influencing factors of rural households' homecoming behavior, it was necessary to screen out the data with migrant work experience. At the same time, samples with missing values or those with obvious problems were removed. After the screening, a total of 700 qualified samples were obtained in this paper.

3.2. Variables and Descriptive Statistics

The dependent variable of this paper was the homecoming behavior of farmers. Assign "1" to those who had returned to their hometowns and "0" to those who were still working outside the home in the sample of rural households with migrant work experience. On the whole, 296 migrants had returned to their hometowns, accounting for 42.3%, while

404 migrants had not returned to their hometowns, accounting for 57.7%. The actual proportion of farmers returning to their hometowns was still relatively low.

This paper examined the factors influencing individual homecoming behavior from the perspective of individual–family interaction and coordination from both emotional and economic aspects. Specifically, two core independent variables of support pressure and urban housing purchase were used for the analysis.

The support pressure of farmers was measured according to the question "How many old people needed to be supported in your family" in the questionnaire. Since the scope of the question was limited to the members of the household register, only three results, 0, 1 and 2, were available for this question. To be specific, this paper defined support as supportive behavior in economic support, life care, spiritual comfort and other aspects. Considering that when there was only one elderly person to support in the family, other family members could help to take care of the elderly person's diet and daily living, the surveyed farmers faced a relatively small support burden. Therefore, the two conditions of not needing to support the old and only needing to support one old person were defined as no support pressure and assigned a value of "0". When migrant workers needed to support two old people, it was defined as having support pressure and assigned a value of "1". According to the statistical results, the proportion of farmers with support pressure reached 47.6%.

During the investigation, by asking "whether your family (the members of the household register) had bought a house in the city" to understand the situation of urban housing purchase, those who had bought a house in the city were assigned a value of "1", while those who had not bought a house in the city were assigned a value of "0". Among them, the house's location of purchase included provincial capitals, prefecture-level cities and counties. According to the results, 44.1 percent of rural households bought houses in cities.

Based on the existing research on the factors influencing the return behavior of farmers [86,87], the control variables introduced in this paper involved the characteristics of the family, individual, village and flow. To be specific, family characteristics set up the relative indicators including the economic, human, social and natural capital of the family [88]. The basic characteristics, social security and cognition of rural migrant workers were investigated. The characteristics of villages mainly focused on the economic development level of the outflow area, while the characteristics of flow focused on the individual flow distance and flow years [89,90]. The specific definition of variables and their descriptive statistical results are shown in Table 1.

In terms of household economic capital, the average annual income of the surveyed households was about 63,700 yuan. From the perspective of family social capital, the average number of mobile contacts in the family was 166. From the perspective of family human capital, the average number of surveyed farmers in their families was 4.180, and the average number of migrant workers in their families was 1.470. In terms of household natural capital, 79.6% of households still held contracted land. From the perspective of personal characteristics, among the interviewees with migrant work experience, males accounted for 30.6% more than females. The average age of the interviewees was 37.579 years old, and the average education level was junior high school. However, less than half of the surveyed farmers enjoyed public health care and commercial medical insurance. Although the Chinese government had introduced many policies to encourage talent to return to their hometowns, most farmers had little understanding of the policies. In terms of village characteristics, 58.1 percent of villages had a collective economic income of 100,000 yuan and above in 2021. From the flow characteristics, the proportion of migrant workers in transnational outflow, trans-provincial outflow, cross-city outflow, cross-county outflow and within the county outflow was 1.6%, 21.4%, 28.6%, 20.9% and 27.5%, respectively. Meanwhile, the average outflow was 7.7 years. It could be seen that the short-distance flow in the province and the medium- and long-term flow in the city were the main characteristics of rural labor flow at present.

Table 1. Variable selection, definition and descriptive statistics.

Variables		Definition	Mean	S.D.	Max	Min
Dependent variable	Return	1 = Return; 0 = No return	0.423	0.494	1.000	0.000
Independent variables	Support	1 = Have support pressure; 0 = No support pressure	0.476	0.500	1.000	0.000
	House	1 = Urban housing; 0 = Non-urban housing	0.441	0.497	1.000	0.000
Family characteristics	Income	The logarithm of annual household income (CNY) in 2021	11.062	1.106	13.816	0.000
	Socialize	The logarithm of mobile phone contacts	5.109	1.168	8.700	0.000
	Population	Total household size	4.180	1.436	11.000	1.000
	Abroad	Number of other family members in the city	1.470	0.516	2.000	0.000
	Land	1 = Land; 0 = Landless	0.796	0.403	1.000	0.000
Individual characteristics	Gender	1 = Male; 0 = Female	0.653	0.476	1.000	0.000
	Age	Individual age	37.579	13.773	65.000	19.000
	Healthy	1 = Very bad; 2 = Bad; 3 = General; 4 = Good; 5 = Very good	4.250	0.860	5.000	1.000
	Education	1 = Illiterate; 2 = Primary school; 3 = Junior high school; 4 = High school; 5 = College and above	3.251	1.468	5.000	1.000
	Insurance	1 = Multiple types of insurance; 0 = No insurance or only basic	0.400	0.490	1.000	0.000
	Wages	1 = 0–3000; 2 = 3001–5000; 3 = 5001–8000; 4 = 8001–10,000; 5 = More than 10,000 (CNY)	1.856	1.135	5.000	1.000
	Awareness	1 = No know; 2 = Less know; 3 = Generally know; 4 = More know; 5 = Totally know	1.809	1.108	5.000	1.000
	Marriage	1 = Married; 0 = Unmarried	0.559	0.497	1.000	0.000
Village characteristics	Economic	1 = The village collective economic income is 100,000 yuan and above in 2021; 0 = The village collective economic income is less than 100,000 yuan in 2021	0.581	0.494	1.000	0.000
Flow characteristics	Distance	1 = Transnational; 2 = Trans-provincial; 3 = Cross-city; 4 = Cross-county; 5 = Within the county	3.514	1.152	5.000	1.000
	Years	Accumulated years of working in cities	7.700	7.398	40.000	0.080

Note: Obtained from sample data statistics in 2022.

3.3. Methods

3.3.1. Baseline Model

The core independent variables of this paper were support pressure and urban housing purchase, and the control variables considered the characteristics of the family, individual, village and flow as integrated, to explore the factors influencing the return behavior of rural migrant workers. Finally, we set the following function.

$$Y = a_0 + a_1 x + a_2 m + \varepsilon_1 \quad (2)$$

In Function (2), Y represents whether rural migrant workers return to their hometowns. x represents the core independent variable, namely, support pressure or urban housing purchase. m represents the control variable that affects the behavior of migrant workers returning to their hometowns, and ε_1 is the random error term. Since the dependent

variable was only "return" or "not return", which was a typical dichotomous variable, this paper used a binary *Logit* model for analysis. The model was set as follows:

$$p = P(Y = 1|x) = \frac{e^Y}{1 + e^Y} = \frac{1}{1 + e^{-Y}} = \frac{1}{1 + e^{-(a_0 + a_1 x + a_2 m + \varepsilon_1)}} \quad (3)$$

Further, by sorting out Function (3), we obtained

$$ln\left(\frac{p}{1-p}\right) = Y = a_0 + a_1 x + a_2 m + \varepsilon_1 \quad (4)$$

where p is the return-home probability of rural migrant workers, and $\frac{p}{1-p}$ was the return odds ratio of rural migrant workers.

3.3.2. Mediating Model

After combing through the above, this paper considered "hometown connection" as the mediator of the influence of support pressure. "Hometown connection" was obtained by using five items under the question "How much did you keep in touch with your hometown during migration work" in the questionnaire. We defined "0" as three cases of no contact at all, no contact in general and only contact with family and friends in the hometown, and "1" as two cases of keeping in touch with village cadres and with other people in the village. In addition, "trailing spouse" was used as the mediator of the influence of urban housing purchase. Using the question "Did you have a spouse living with you during migration work" in the questionnaire, we assigned "1" to the answer "yes" and "0" to the answer "no". Based on Function (2), the regression model of the mediating effect was set as follows:

$$Z = a_3 + a_4 x + a_5 m + \varepsilon_2 \quad (5)$$

$$Y = a_6 + a_7 x + a_8 Z + a_9 m + \varepsilon_3 \quad (6)$$

where Z was the mediator. The criteria for determining the significant mediating effect were as follows: Firstly, regressing the independent variable x with dependent variable Y in Function (2), a_1 was found to be significant. Secondly, regressing the independent variable x with mediator Z in Function (5), a_4 was found to be significant. Finally, regressing both the independent variable x and the mediator Z with the dependent variable Y in Function (6), a_8 was found to be significant. If a_7 was significant, it showed a partial mediating effect. If not, it showed a complete mediating effect. In this case, the proportion of the mediating effect to the total effect was $a_4 a_8 / a_1$. It was worth noting that *logistic* regression should be used instead of linear regression to test the mediating effect when the dependent variable and mediator were category variables. Since both the dependent variable and mediator in this study were dichotomous variables, the regression coefficients of Functions (5) and (6) were already equiscaled, and no more scales needed to be converted.

4. Results and Analysis

4.1. Baseline Regression Results

Firstly, *Collin* was used for the multicollinearity test, and it was found that VIF values were all less than 10 and *Tolerance* values were all greater than 0.1, indicating that there was no serious multicollinearity problem among the variables. Secondly, *hetprob* was used for the heteroscedasticity test, and it was found that the p value was greater than 0.05. So, there was no heteroscedasticity problem in the model. Therefore, it ensured the scientificity and reliability of the regression results. Finally, based on the *Logit* model, the baseline regression results of factors affecting the return behavior of rural migrant workers are shown in Table 2.

Table 2. Baseline regression results of returning behavior of rural migrant workers.

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Support	1.910 ***		2.621 ***		2.640 ***	2.233 ***
	(0.177)		(0.294)		(0.295)	(0.365)
House		−0.584 ***		−0.478 *	−0.561 **	−1.051 **
		(0.170)		(0.257)	(0.283)	(0.432)
Support × House						0.928 *
						(0.562)
Income	0.014	0.080	0.283	0.344	0.309	0.296
	(0.088)	(0.098)	(0.290)	(0.262)	(0.294)	(0.294)
Socialize	0.247 ***	0.183 **	0.563 ***	0.440 ***	0.592 ***	0.611 ***
	(0.076)	(0.075)	(0.127)	(0.111)	(0.132)	(0.134)
Population	0.083	0.091	−0.065	−0.054	−0.055	−0.062
	(0.057)	(0.058)	(0.126)	(0.108)	(0.128)	(0.125)
Abroad	−0.343 **	−0.494 ***	−0.980 ***	−1.096 ***	−1.030 ***	−1.015 ***
	(0.166)	(0.153)	(0.284)	(0.253)	(0.289)	(0.292)
Land	−0.421 **	−0.318	0.705 **	0.678 **	0.697 *	0.659 *
	(0.208)	(0.196)	(0.353)	(0.301)	(0.359)	(0.360)
Gender			−0.274	0.132	−0.262	−0.220
			(0.329)	(0.285)	(0.330)	(0.334)
Age			0.125 ***	0.123 ***	0.126 ***	0.125 ***
			(0.018)	(0.016)	(0.019)	(0.019)
Healthy			−0.157	0.018	−0.173	−0.188
			(0.164)	(0.147)	(0.163)	(0.161)
Education			−0.634 ***	−0.540 ***	−0.625 ***	−0.618 ***
			(0.111)	(0.101)	(0.111)	(0.110)
Insurance			−1.779 ***	−1.416 ***	−1.767 ***	−1.788 ***
			(0.325)	(0.282)	(0.325)	(0.328)
Wages			−0.492 ***	−0.590 ***	−0.446 ***	−0.440 ***
			(0.160)	(0.149)	(0.157)	(0.156)
Awareness			0.767 ***	0.684 ***	0.746 ***	0.736 ***
			(0.159)	(0.140)	(0.163)	(0.165)
Marriage			0.740 **	0.513	0.742 **	0.734 **
			(0.368)	(0.320)	(0.374)	(0.372)
Economic			1.628 ***	1.548 ***	1.554 ***	1.592 ***
			(0.293)	(0.260)	(0.290)	(0.300)
Distance			0.314 **	0.268 **	0.282 **	0.274 **
			(0.131)	(0.112)	(0.131)	(0.130)
Years			−0.036 *	−0.040 **	−0.032 *	−0.031
			(0.020)	(0.019)	(0.019)	(0.020)
Constant	−2.213 **	−1.289	−10.581 ***	−9.537 ***	−10.665 ***	−10.331 ***
	(1.035)	(1.138)	(3.468)	(3.185)	(3.515)	(3.510)
Observations	700	700	700	700	700	700
Pseudo R^2	0.1601	0.0344	0.6216	0.5312	0.6254	0.6282

Note: *, ** and ***, respectively, indicate that the regression results are significant at the 10%, 5% and 1% levels, and the values in parentheses are robust standard errors.

Specifically, Model 1 and Model 2 were the baseline regression results, which only introduced the core independent variables of support pressure and urban housing purchase, respectively, as well as the control variables of family characteristics. The results showed that the regression coefficient of support pressure was positive and significant, and the regression coefficient of urban housing purchase was negative and significant, which preliminarily proved that support pressure had a promoting effect on the return of migrant workers, while urban housing purchase had an inhibiting effect on the return. Further controlling the variables with characteristics of the individual, village and flow, Model 3 and Model 4 were obtained. It could be found that the sign of the model regression coefficient was consistent with the former.

After that, the two core independent variables and all control variables were included in the model, and Model 5 was obtained by regression. By *Pseudo* R^2, Model 5 was larger

than previous models, showing a better fitting effect. This means that when other variables remain unchanged, the logarithm of the return odds ratio of farmers under support pressure is 2.640 higher than that of those without support pressure, and the logarithm of the return odds ratio of farmers with a house purchase in cities is 0.561 lower than that of those without house purchase in cities. In other words, the odds ratio of farmers with support pressure to return home is 14.013 times higher than those without ($\exp(2.640)$), and the odds ratio of farmers with urban housing is 42.94% lower than those without urban housing ($1 - \exp(-0.561)$). Children must support their parents. When the parents of migrant workers have support needs, they are easy to choose to return home under emotional traction. H1 is verified. If rural households buy houses in cities, it indicates that they have the pursuit of high employment, high income and high quality of life to some extent, and such demands are difficult to be met in rural society. The favorable economic development of cities weakens the willingness of migrant workers to return home, and H2 is verified. Model 6 reported the *Logit* model with the interaction terms of support pressure and urban housing purchase. The sign and significance level of the regression coefficients of the two core independent variables did not change, and the coefficient of the interaction term was significantly positive, indicating that there was a certain interaction effect between the two. Although migrant workers under support pressure were less likely to return home if they have a house in the city, the coefficient was still positive. This indicates that support pressure plays a particularly important role in pulling migrant workers back home.

The effects of various control variables were discussed next. In terms of family characteristics, families with extensive social networks or contracted land could significantly promote migrant workers to return to their hometowns, but the more migrant workers in the family, the lower the likelihood of returning to their hometowns. First, the more family contacts and the wider the social range, the more channels they have to obtain information and grasp resources, thus having better capital accumulation in rural society, which can lay a good foundation for the development of farmers after they return home. Second, land resources are the multifunctional carrier for farmers to obtain spiritual belonging, identity, social security and economic benefits. At the same time, land cultivation needs a lot of input from various production factors, especially the input of labor. As a result, migrant workers whose families have land are more likely to return home. Third, family members tend to be consistent in cognition and action. Therefore, the more migrant workers in the family, the weaker the tendency for an individual to return home.

In terms of personal characteristics, farmers who were married, older and more familiar with the homecoming policy were more likely to return to their hometowns. However, the more educated the farmers were, the more social welfare they had, and the higher the average monthly income they earned while working in cities, the less likely they were to return home. First, older migrant workers are no longer adapted to the fast-paced urban living environment and prefer a stable life state, which is also consistent with the flow law of life cycle theory. Second, in recent years, China has introduced many policies to attract talent to return to their hometowns. The more attention farmers pay to relevant policies, the more likely they are to be attracted to return to their hometowns. Third, usually, married farmers are more closely connected with the countryside and pursue a stable life. At the same time, married farmers are more likely to face fertility pressure, restrictions on their children's urban enrollment, and their parents' pension problems, which make them more willing to return home. Fourth, the higher the level of education, the stronger the ability of farmers to pursue new things and adapt to the new environment, and the more likely they are to go to cities to seek more job opportunities and promotion space. Fifth, when farmers suffer from serious diseases, diversified medical insurance can reduce their economic losses and reduce their willingness to return home. Sixth, based on the principle of income maximization, the higher the income they earn in the city, the stronger their intention to stay in the city for development.

In terms of village characteristics, farmers in villages with better economic development were more likely to return home. The higher the income of the village collective

economy, the stronger the role in driving the development of industries and promoting farmers' income. At the same time, economic development is the foundation of village social, cultural, ecological and other aspects of development, and the maturity and perfection of infrastructure and public services can improve farmers' happiness in the countryside, thus attracting migrant workers to return home. In terms of flow characteristics, the closer the outflow distance or the shorter the outflow years of migrant workers, the greater the probability of returning home. The main reason is that migrant workers who leave the country across a long distance or for a long period will gradually withdraw themselves from rural society, thus reducing the sense of integration and identity in their hometown and the possibility of returning home.

4.2. Mediating Effect Analysis

This section analyzed the mediating effect of support pressure and urban house purchase on the return behavior of rural households, and the results are shown in Table 3. Model 5 was the baseline model, and Models 7 and 8 discussed the mediating effect of hometown connection on the influence of support stress on returning home behavior. Models 9 and 10 examined the mediating effect of whether spouses are in the city together on the influence of urban house purchase on returning home behavior.

Table 3. Regression results of mediating effect.

Variables	Support Pressure			Urban Housing Purchase		
	Homecoming Behavior	**Hometown Connection**	**Homecoming Behavior**	**Homecoming Behavior**	**Trailing Spouse**	**Homecoming Behavior**
	Model 5	**Model 7**	**Model 8**	**Model 5**	**Model 9**	**Model 10**
Support	2.640 ***	1.020 ***	2.577 ***			
	(0.295)	(0.293)	(0.293)			
House				−0.561 **	0.586 ***	−0.276
				(0.283)	(0.206)	(0.311)
Hometown connection			1.316 **			
			(0.615)			
Trailing spouse						−2.371 ***
						(0.385)
Control variables	YES	YES	YES	YES	YES	YES
Constant	−10.665 ***	−14.247 ***	−9.771 ***	−10.665 ***	1.769	−8.148 **
	(3.515)	(3.107)	(3.663)	(3.515)	(1.319)	(3.456)
Observations	700	700	700	700	700	700
Pseudo R^2	0.6254	0.7980	0.6319	0.6254	0.2935	0.6741

Note: ** and ***, respectively, indicate that the regression results are significant at the 5% and 1% levels, and the values in parentheses are robust standard errors. All regression functions contain control variables for characteristics of household, individual, village and flow. Due to space limitations, detailed regression results of control variables are not reported here. Same below tables.

The regression results of Model 7 and Model 8 showed that support pressure had a significant effect on village connection, and village connection had a significant effect on farmers' homecoming behavior. Compared with Model 5, it was found that the regression coefficient of support pressure in Model 8 decreased from 2.640 to 2.577, and the direct effect on returning behavior was significant. This suggested that hometown connection played a partial mediating role in the positive effect of support pressure on returning behavior. Further calculation results showed that the size of the mediating effect was 1.342, accounting for 50.83% of the total effect. It indicates that the indirect effect of support pressure was slightly greater than the direct effect. In the process of supporting their parents, the geographical and psychological distance between migrant workers and the countryside was narrowed, their sense of native belonging and village integration was enhanced, and their intention to return home was enhanced. H4 is verified.

The regression results of Model 9 and Model 10 showed that after purchasing a house in the city, the spouses of migrant workers were more willing to go to the city together, which would further hinder their return behavior. In comparison with Model 5, it was found that in Model 10, the direct effect of house purchase in cities on returning home behavior was not significant, indicating that spouses who went to cities together played a complete mediating role. The goal of family members is to maximize the total income of the family. If farmers buy houses in the city and their spouses work in cities at the same time, the hidden cost of returning to their hometowns will increase; so, the probability of returning to their hometowns is relatively reduced. H5 is verified.

We conducted a robustness test on the regression results of the mediating effect and found that the p value of the *Sobel* test for the hometown connection was 0.067, and the p value of the *Sobel* test for the trailing spouse was 0.006, which further indicated that the regression results of the above mediating effect were robust.

4.3. Moderating Effect Analysis

The above research on the influence of support pressure and urban housing purchase on the returning behavior of migrant workers belonged to the analysis of established facts. Although the intention to return to a certain extent predicted the return behavior [91], there were often differences in practice. Therefore, we attempted to take into consideration the two dimensions of migrant workers' intention and behavior to return home to further verify whether there was any inconsistency between the intention and behavior. We then expanded the study by replacing the expected variable, namely, the intention to return home.

The interaction effect between support pressure and urban house purchase had been verified in Model 6 above, and migrant workers who had a house purchase in cities would be less likely to return when facing support pressure. It could be seen that support pressure may be regulated by rural households' urban development intention in the process of promoting them to return to their hometowns. This paper used the question "Would you plan to buy a house in the city in the next five years" in the questionnaire to measure the urban development intention of farmers, and assigned "1" to those who answered "yes" and "0" to those who answered "no". In order to improve the reliability of the research conclusions, this part excluded migrant workers who had bought houses in cities and obtained a total of 391 samples that had not bought houses in cities.

Specifically, to explore the moderating effect of urban housing purchase plans on the impact of support pressure on farmers' decision to return home, we established a baseline regression function including only the dependent variable, core independent variable and control variable.

$$Y' = \beta_0 + \beta_1 x' + \beta_2 m + \varepsilon_4 \quad (7)$$

In Function (7), Y' represents the returning behavior or intention of rural migrant workers. x' represents the support pressure. m represents the control variable, and ε_4 is the random error term. Next, the moderator n and the interaction between the moderator n and the core independent variable x' were added to Function (7). Therefore, the regression model of the moderating effect was set as follows:

$$Y' = \beta_3 + \beta_4 x' + \beta_5 n + \beta_6 x' n + \beta_7 m + \varepsilon_5 \quad (8)$$

Further, by sorting out Function (8), we obtained

$$Y' = x'(\beta_4 + \beta_6 n) + \beta_5 n + \beta_7 m + \beta_3 + \varepsilon_6 \quad (9)$$

where n is the moderator urban housing purchase plan. If the regression coefficient β_6 of the interaction term $x'n$ is significant, then the moderating effect will exist. Therefore, if the family has the plan to buy urban housing within five years, the influence coefficient of

support pressure on farmers' decisions to return home will be $\beta_4 + \beta_6$, while the influence coefficient is β_4 when the family has no plan to buy urban housing.

As shown in Table 4, the dependent variable of Model 11 and Model 12 was the homecoming behavior, while the dependent variable of Model 13 and Model 14 was the homecoming intention. Based on the baseline regression Models 11 and 13, Model 12 and Model 14 included the house-buying plan and the interaction between support pressure and the house-buying plan. The regression results showed that the relationship between support stress on returning home behavior and returning home intention was consistent with the baseline regression results. Support pressure significantly promoted the return of farmers to their hometowns, and the interaction term was significantly negative, that is, the house purchase plan had a significant moderating effect on the relationship between support pressure and the decision to return home. Specifically, when there was a plan to buy urban housing in the future, the coefficient of influence of support pressure on the return behavior was 1.188 (3.119–1.931), while the coefficient of influence was 3.199 when there was no plan to buy urban housing. Similarly, when planning to purchase urban housing in the future, the influence coefficient of support pressure on the intention to return home was −1.148 (1.716–2.684), while the influence coefficient was 1.716 when there was no urban housing plan. This indicates that rural households' urban development intention will weaken the promoting effect of their children's support responsibility on returning home to some extent. When farmers face support pressure, if they also have the plan to buy urban housing, they will not be willing to return to their hometowns in the intention dimension, but will still return to their hometowns in the behavioral dimension, which reflects the non-consistency of the intention and behavior of farmers to return to their hometowns. H3 is verified.

Table 4. Regression results of the moderating effect of future urban housing purchase plan.

Variables	Homecoming Behavior		Homecoming Intention	
	Model 11	**Model 12**	**Model 13**	**Model 14**
Support	2.396 ***	3.119 ***	1.147 ***	1.716 ***
	(0.363)	(0.556)	(0.324)	(0.381)
Plan		1.234 *		−0.126
		(0.661)		(0.586)
Support × Plan		−1.931 *		−2.864 ***
		(1.019)		(0.766)
Control variables	YES	YES	YES	YES
Constant	−7.221	−7.887	0.062	0.704
	(4.904)	(6.092)	(2.007)	(2.079)
Observations	391	391	391	391
Pseudo R^2	0.6514	0.6622	0.4218	0.4550

Note: * and ***, respectively, indicate that the regression results are significant at the 10% and 1% levels, and the values in parentheses are robust standard errors.

4.4. Heterogeneity Analysis

The full sample regression showed the average effect of support pressure and urban housing purchase on the returning behavior of rural migrant workers. However, the basic characteristics of different rural migrant workers were not the same, and the degree of influence on the returning behavior was also very different. It was necessary to pay attention to the differentiated group types of returning behavior to achieve targeted policy recommendations. Therefore, this paper made grouping regression of sample farmers according to three indicators: individual education level, family income and outflow distance. It was worth noting that the provinces in which the research samples were located covered the eastern, central and western provinces of China, and their economic bases differed greatly. So, the migrant workers were classified according to the mean value of the household income of the research sample in their provinces, and those above the mean value were high-income families. The final regression results are shown in Table 5.

Table 5. Heterogeneity analysis of education level, household income and outflow distance.

Variables	Education Level		Household Income		Outflow Distance	
	High School and Below	**Above High School**	**Low Income**	**High Income**	**Movement Outside the City**	**Movement within the City**
Support	3.213 ***	2.446 **	3.138 ***	2.579 ***	2.683 ***	2.824 ***
	(0.408)	(1.170)	(0.473)	(0.444)	(0.453)	(0.402)
House	−0.963 ***	0.028	0.0004	−1.017 **	−0.663	−0.674 *
	(0.370)	(0.618)	(0.426)	(0.435)	(0.485)	(0.375)
Control variables	YES	YES	YES	YES	YES	YES
Constant	−16.662 ***	−3.285	−4.889 **	−9.568 ***	−12.370 ***	−7.396
	(2.598)	(4.069)	(2.448)	(2.513)	(3.355)	(5.249)
Observations	479	221	304	396	361	339
Pseudo R^2	0.6285	0.4855	0.6509	0.6678	0.6449	0.5899

Note: *, ** and ***, respectively, indicate that the regression results are significant at the 10%, 5% and 1% levels, and the values in parentheses are robust standard errors.

According to the regression results of the education group, compared with the group with high school education or above, support pressure had a stronger promoting effect on the returning behavior of the group with high school education and below. The likely explanation is that better-educated farmers are more able and prefer to move to cities, creating better living conditions for their parents. However, farmers with low education levels have limited abilities and are more difficult to stabilize in cities; so, they are more inclined to return home to support the elderly. H1a is verified. The effect of urban housing purchase on the return behavior of migrant workers was only in the group with high school education and below, possibly because the group with high education is less restricted by housing demand. Relatively speaking, the low-educated group has a weak skill level and few employment opportunities. Once they buy a house in the city, they will actively seek development opportunities and stay in the city, and the probability of returning home will be greatly reduced. H2a is verified.

According to the regression results of the family income group, support pressure had a greater promoting effect on the return behavior of the low-income group than that of the high-income group. Generally speaking, those with high family income can afford to hire caregivers or send them to nursing homes where they can enjoy more professional care. However, farmers in low-income families need to take the initiative to take care of the elderly back home when they are faced with a greater support burden. H1b is verified. The inhibitory effect of urban house purchase on the return behavior of migrant workers only appeared in the group of high-income families. Once the group with high household income has bought a house in the city, they can go to the city with their whole family and enjoy the better infrastructure and public services, thus reducing the possibility of returning home. Considering that the housing price in China's cities is too high, it is difficult for low-income families to afford to buy a house. Therefore, the impact of urban housing purchase on low-income families is not significant. H2b is verified.

According to the regression results of the outflow distance group, support pressure had a stronger promoting effect on the return of the group moving within this city than that of the group moving outside this city. The outflow distance is positively correlated with the cost of returning home. The closer the outflow distance is, the smaller the time cost and economic cost of returning home, thus reducing the difficulty of returning home. However, the negative effect of urban housing purchase on returning behavior was only reflected in the migrant workers whose outflow distance is in the city, since proximate inflow has more employment opportunities compared to rural areas and lower cost of living compared to distant inflow. Therefore, the city or county where they were born is often the best place for most workers to settle down.

4.5. Robustness Test

We take into account that the sample selection in the field research is non-randomized, and there is a certain self-selection bias in whether the migrant workers return to their hometowns or not. Referring to the practice of replacing estimation methods in existing studies [92], ordinary least square (OLS) and probit and propensity score matching (PSM) were used in this paper to further test the robustness of regression results of the model. Table 6 reports the robustness test results based on the first two methods.

Table 6. Regression results based on OLS and Probit.

Variables	Homecoming Behavior	
	OLS	**Probit**
Support	0.264 ***	1.468 ***
	(0.027)	(0.156)
House	−0.072 ***	−0.276 *
	(0.025)	(0.154)
Control variables	YES	YES
Constant	−0.510 **	−5.036 ***
	(0.215)	(1.496)
Observations	700	700
R^2 or pseudo R^2	0.6143	0.6209

Note: *, ** and ***, respectively indicate that the regression results are significant at the 10%, 5% and 1% levels, and the values in parentheses are robust standard errors.

The regression results of the above two methods were basically consistent with the results based on the *Logit* model, that is, the support pressure had a positive impact on the homecoming behavior of farmers, and the urban house purchase had a negative impact on the homecoming behavior of farmers, which increased the reliability of the results to some extent. Next, the support pressure and urban housing purchase were taken as treatment variables, the original control variables were taken as covariables, and the regression test was conducted using the PSM method. The balance test results of the samples are shown in Table 7. It could be found that the absolute value of standard bias after matching most covariables was less than 10%, and the T-test did not reject the original hypothesis that there was no difference between the treatment group and the control group, indicating that the samples passed the balance test.

Table 7. Results of balance test.

Variables	Treatment Group	Control Group	Standard Bias (%)	*t* Value	*p* Value
Income	11.053	10.988	5.900	0.760	0.445
Socialize	5.032	5.019	1.100	0.150	0.883
Population	4.162	4.146	1.100	0.140	0.891
Abroad	1.432	1.388	8.400	1.090	0.278
Land	0.804	0.829	−6.200	−0.810	0.416
Gender	0.711	0.717	−1.300	−0.170	0.862
Age	39.646	38.559	8.000	0.960	0.336
Healthy	4.245	4.155	10.500	1.320	0.186
Education	3.112	3.239	−8.700	−1.070	0.283
Insurance	0.391	0.366	5.100	0.650	0.517
Wages	1.689	1.649	3.600	0.530	0.595
Awareness	1.894	1.848	4.200	0.530	0.599
Marriage	0.593	0.599	−1.300	−0.160	0.873
Policy	0.596	0.627	−6.300	−0.810	0.420
Distance	3.612	3.599	1.100	0.140	0.892
Years	7.490	6.564	12.500	1.700	0.090

Note: Obtained according to the PSM method.

Furthermore, three methods of one-to-one matching, radius matching and kernel matching were used to match the samples, and the average treatment effect (ATT) of support pressure and urban housing purchase was calculated. The regression results of PSM are shown in Table 8. In terms of support pressure, the differences between the treatment group and the control group under the three matching methods were 0.258, 0.236 and 0.242, respectively, which were all significant at the 1% level. In terms of urban housing purchase, the differences between the treatment group and the control group under the three matching methods were −0.106, −0.081 and −0.082, respectively, which were all significant at the level of 10%. It could be seen that the regression results of PSM were still basically consistent with the previous regression results, which once again proved the obvious promoting effect of support pressure on rural households' homecoming behavior and the obvious inhibiting effect of urban house purchase on rural households' homecoming behavior.

Table 8. Regression results of PSM.

Matching Method	Variables	Treatment Group	Control Group	ATT	*t* Value
One-to-one matching	Support	0.630	0.373	0.258 ***	4.870
	House	0.377	0.483	−0.106 *	−1.780
Radius matching	Support	0.640	0.404	0.236 ***	6.170
	House	0.370	0.451	−0.081 *	−1.740
Kernel matching	Support	0.630	0.389	0.242 ***	6.390
	House	0.377	0.460	−0.082 *	−1.810

Note: * and ***, respectively, indicate that the regression results are significant at the 10% and 1% levels.

5. Discussion

This study found that rural migrant workers with support pressure were more likely to return home than those without support pressure, and rural migrant workers with urban housing were less likely to return home than those without urban housing. This is consistent with the findings of existing studies obtained by building a multinomial logistic regression model [93]. Generally speaking, the physical health of the elderly is poor, and most rural elderly people are mainly dependent on their children's upward mobility. The family responsibility of supporting parents is the main reason for rural migrants to return to their hometowns, and those who do not need to support the elderly are more likely to want to "stay" in the place of inflow. However, higher levels of housing conditions in cities have increased the willingness of mobile populations to settle in cities [94]. At the same time, urban benefits such as transportation, education, health care and employment are often attached to urban housing, and owning formal urban housing has become one of the basic conditions for migrant workers to migrate permanently to cities. Further, this study added the interaction term of support pressure and urban home purchase to the Logit model, and found that the pull effect of support pressure on farmers' return to their hometowns is greater than the resistance effect of urban home purchase on farmers' return to their hometowns. In other words, farmers will still choose to return to their hometowns when they have both support pressure and urban home purchase. In fact, the return of rural migrant workers is a combination of "passive" return and "active" return, and a cycle of migration and return. Faced with the family responsibility of supporting their parents, the return of migrant workers to their hometowns is a "passive" choice. This reflects from the side that the current Chinese rural social security system for the elderly is still facing bottlenecks such as insufficient supply of funds for old-age security, unsound old-age facilities and unsustainable operation of old-age services. Coupled with the deep traditional concept of family old-age care in rural areas, the possibility of the elderly choosing old-age homes for the elderly is not yet high [95].

In terms of family characteristics, extensive family social networks and ownership of contracted land significantly promote the return of migrant workers to their hometowns. However, the greater the number of migrant workers in a family, the lower the likelihood

that migrant workers will return home. Previous studies have come to similar conclusions [87,96]. Migration network theory suggests that social networks reduce the costs and risks of migration and increase the efficiency of migration. China is a traditional "society of acquaintances", and the larger the social network of the families of rural migrant workers in the countryside, the higher their degree of integration in the countryside, and the "human relationship" is an important factor influencing their decision to return to their hometowns. The dual function of land resources as a means of production and social security provides a basis for rural migrant workers to return to their hometowns, and is also the last resort for their failed attempts to move to the cities. Households with a higher number of outmigrants are more viable in the city and have a greater willingness to settle.

In terms of individual characteristics, the likelihood of return is higher for farmers who are married, the older they are, and the more knowledgeable they are about the return policy. This finding is similar to that of existing studies [97]. Married migrant workers have a heavier sense of responsibility for their families and will choose to return home in order to take care of their families. Older migrant workers are physically weaker and have fewer job opportunities to earn a high income in the cities; so, they are more willing to return to their hometowns under the emotional pull of their hometowns [98]. Information on return policy itself has a guiding and motivating function. The more migrant workers know, the more likely they are to feel the urge to return home, thus increasing the strength of their willingness to return home. It is worth noting that the effect of gender on the decision making of rural migrant workers to return to their hometowns is statistically insignificant in this study, which is inconsistent with the findings of existing studies that female groups are more likely to return to their hometowns compared to male groups [62]. The reason for this is that nearly 70% of the respondents in this study were male, which may have been influenced by gender clustering resulting in statistically insignificant results. However, the return of farmers with higher levels of education, higher average monthly incomes from outside work, and more social welfare coverage is likely to be lower. Classical human capital theory suggests that the lower the level of human capital of rural migrant workers, the less competitive they are for employment in the cities, and, accordingly, with fewer employment opportunities and lower wage income, the more likely they are to return home, and vice versa [99]. Interestingly, some studies have found that participation in social insurance reduces the likelihood of rural laborers returning to their hometowns [100].

In terms of village characteristics, farmers in villages with better economic development are more willing to return home [86]. In terms of flow characteristics, the closer the distance of the outflow and the shorter the duration of the outflow, the higher the relative probability that a farmer will return home. The closer the mobility distance and the shorter the mobility time, the smaller the opportunity cost for rural migrant workers to return to their hometowns, which in turn enhances their willingness to return to their hometowns, which is consistent with the findings of the existing studies [87].

There is a long list of factors that influence return decisions of rural workers from within China. Housing prices are one of the important costs of living and working, and undoubtedly have an impact on the intention of out-migration, in-migration and settlement of agricultural migrant labor [101,102]. Helpman (1998) introduced the housing factor into the new economic geography model for the first time and pointed out that the rising housing price increased the living cost, which was not conducive to the inflow and agglomeration of labor [103]. Based on the empirical study of the UK, Rabe and Taylor (2012) found that the difference in housing price between regions was an important determinant of family cross-regional migration, and the high housing price of potential destinations would hinder the inflow of migrants [104]. Plantinga et al. (2013) found by analyzing the data of the United States that the increase in housing costs increased the probability of labor leaving metropolitan areas [105]. Ganong and Daniel (2017) found that the increase in living costs caused by the rise in housing prices in big cities would erode the return on migration of low-skilled migrants, forcing them to flow to small- and medium-sized cities with relatively low housing prices [106]. However, some studies have found that the rise

in urban housing prices does not inhibit the continuous inflow of migrant population, which is mainly due to the development prospects, wealth growth space, better living environment and public services in big cities, which play a positive role in the inflow of talents to a certain extent [107]. For highly educated labor, high housing prices do not inhibit their immigration decisions [108], and they are more willing and able to bear the living costs in cities. This view is consistent with our findings on the impact of educational attainment, which show that farmers with low education levels have limited abilities and are more difficult to stabilize in cities, so they are more inclined to return home to support the elderly.

Overall, housing prices are an important factor affecting the mobility of migrant workers, especially in China. Although the conclusions of existing studies are not consistent, we cannot simply consider them to be contradictory. In fact, they consider the economic factor effects of income and work on the one hand and focus on the welfare effects of migration on the other hand. From the perspective of family, our study comprehensively considers the influence of economic factors and family emotional support, which provides certain reference for the study of migrant workers' returning-home decision making. Unfortunately, since our database focuses more on the survey of rural areas, we do not have the exact housing price information of the places where migrant workers flow. However, our study considers the urban home purchase of migrant workers and the urban home purchase plan in the next five years. First of all, we believe that if a farmer has bought a house in the city, it may indicate to some extent that he can afford the housing price in the area. However, it is unknown whether they choose to return due to the influence of other family events, such as the need for support of parents, which is also an issue explored in this paper. Secondly, since our research is based on the economic and emotional ties between families, the willingness to buy houses in cities in the future also indicates the affordability of migrant families to urban housing prices to a certain extent.

Talent revitalization is the key to rural revitalization. The return of the labor force is not only the combination of "passive" return and "active" return but also the circulation of returning and re-migration. The return of farmers is more of a "passive" choice when facing the pressure of supporting the elderly, which indicates that the current social security system in China's rural is not perfect. The elderly in China's rural areas will rely on the intergenerational pension of their families for a long period. In the future, an effective social pension model should be developed in rural areas as an important supplement. Moreover, strengthening rural infrastructure construction should proceed from reality, especially paying attention to improving the quality of construction. In terms of public services, it is still necessary to encourage education, medical care and cultural resources to rural areas so that rural residents can share the fruits of development. The implementation of the Rural Revitalization Strategy in China can attract the return of the labor force, and the return of the labor force will also help promote the development of the Rural Revitalization Strategy. The main body of rural revitalization is farmers. In the current situation where the urban population is too dense and the rural population is too sparse, we should fully respect the dominant position of farmers, seek development while protecting the clear water and green mountains, and seek innovation while preserving the local characteristics. We should pay attention to the traction effect of homesickness culture on migrant workers and strengthen the regular contact mechanism with rural talents in the city and the extent of the publicity of the homecoming support policy.

The research of this paper has the following implications for promoting the orderly return of rural migrant workers to their hometowns and promoting the revitalization of rural talent. The key to rural revitalization lies in the effective allocation of human resources. To properly guide the return of rural migrant workers, we should strive to create a new pattern of introducing, cultivating, making good use of and retaining talents, and constantly strengthen support for rural talents. In China, a county seat connects the city at one end and the countryside at the other. It is an important junction between urban and rural areas and the best carrier of economic development. At present, we should take the county as an

important entry point and crack the bottleneck of talent factors utilizing reform. On the one hand, we should promote the flow of factors between urban and rural areas in China, actively explore and develop various public service communities, establish and smooth the two-way flow mechanism of urban and rural talents, and finally make it an important carrier to promote urban–rural integrated development. On the other hand, we should take the employment transfer in their hometown of the rural labor force as the breakthrough point, activate the county's economy, narrow the development gap between urban and rural areas, and accelerate the establishment of the county talent utilization system, to provide talent support for the Rural Revitalization Strategy.

Our study has the following limitations:

(1) Labor migration is affected by many factors, and it is difficult to capture them all. This study only analyzes the impact of two major events in an individual's life course, supporting the elderly and buying a house in a city, on their decision to return to their hometown. However, due to the design of the questionnaire, the number and specific situation of school-age children in peasant families have not been obtained. Therefore, the influence of this variable has not been verified at the family level, and supplementary research will be considered in the future.

(2) Our study examined the influencing factors at the individual and household levels, but the factors at the village level were less selected. In particular, it ignores the role of ecological and cultural values of villages in attracting migrant workers back to their hometowns.

(3) Housing price is an important factor affecting migrant migration. We conduct an analysis of the effects of housing prices based on the literature. Since the area we investigate is rural and the housing price changes, the existing research only asks farmers whether they buy houses in cities, and does not pay attention to the details such as the specific time when they buy houses in cities and the source of funds for the purchase. In the future, we hope to further refine the questionnaire design to enrich the research in this field.

(4) We consider the promotion effect of urban public service variables on migrant workers' entering the city in the decision-making equation, but limited by the availability of data in the empirical part, we do not test the impact of relevant variables on migrant workers' migration.

6. Conclusions

Based on the above analysis, the major conclusions are as follows.

When other variables remain unchanged, the odds ratio of migrant workers with support pressure to return home is 14.013 times higher than those without, and the odds ratio of migrant workers with urban housing is 42.94% lower than those without. By adding the interaction term between the two, we find that the migrant workers who buy houses in cities are less likely to return to their hometowns when facing support pressure than those who do not buy houses in cities. However, in general, support pressure plays a stronger role in promoting the return behavior of migrant workers.

Characteristics of family, individual, village and flow all have different degrees of influence on individuals' homecoming decisions. Hometown connection plays a partial mediating role in the positive impact of support pressure on returning behavior, with the mediating effect being 1.342, accounting for 50.83% of the total effect. However, a trailing spouse plays a complete mediating role in the effect of urban house purchases on returning-home behavior. Further analysis shows that there is an interactive relationship between urban development intention and support pressure, that is, migrant workers with stronger urban development intention will not immediately return to their hometowns when facing support pressure. The analysis of heterogeneity shows that migrant workers with lower education levels, lower household income and closer distance to the countryside are more likely to return home when facing support pressure. At last, OLS, Probit, PSM

and other methods are used to carry out robustness tests, further verifying the reliability of the above conclusions.

Author Contributions: Conceptualization, Y.Z.; data curation, L.N. and L.Y.; formal analysis, L.N.; funding acquisition, Y.Z.; investigation, L.N. and L.Y.; methodology, L.N. and L.Y.; software, L.N.; supervision, Z.D. and Y.Z.; validation, Z.D. and Y.Z.; writing—original draft preparation, L.N.; writing—review and editing, L.N., Y.Z. and Z.D. All authors have read and agreed to the published version of the manuscript.

Funding: This work was financially supported by the Chinese Academy of Agricultural Sciences Agricultural Science and Technology Innovation Program (10-IAED-06-2023); Fundamental Research Funds of Chinese Academy of Agricultural Sciences (23-2060302-057).

Institutional Review Board Statement: Not applicable.

Data Availability Statement: The datasets used and analyzed during the current study are available from the corresponding author on reasonable request.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. National Bureau of Statistics. Bulletin of the Seventh National Census (No. 7): Urban and Rural Population and Floating Population. 2021. Available online: http://www.stats.gov.cn/sj/zxfb/202302/t20230203_1901087.html (accessed on 1 June 2023).
2. Knight, J.; Deng, Q.H.; Li, S. The puzzle of migrant labour shortage and rural labour surplus in China. *China Econ. Rev.* **2011**, *22*, 585–600. [CrossRef]
3. Bao, A.; Pang, G.; Zeng, G. Entrepreneurial effect of rural return migrants: Evidence from China. *Front. Psychol.* **2022**, *13*, 1078199. [CrossRef] [PubMed]
4. Olesen, H. Migration, return, and development: An institutional perspective. *Int. Migr.* **2002**, *40*, 125–150. [CrossRef]
5. Xiong, W.; Huang, M.J.; Cai, X.M.; Yuan, Z.J.; Zhang, G.P. The gaps between policy design and peasant migrants' intention of citizenization: The study of China's Guangdong Province. *J. Rural. Stud.* **2023**, *100*, 103021. [CrossRef]
6. Michele, B.; Luisa, C.M.; Martina, L.; Simone, B. Migrants in the economy of european rural and mountain areas. A cross-national investigation of their economic integration. *J. Rural. Stud.* **2023**, *99*, 62–70. [CrossRef]
7. Huang, Z.; Cheng, X. Environmental regulation and rural migrant workers' job quality: Evidence from China migrants dynamic surveys. *Econ. Anal. Policy* **2023**, *78*, 845–858. [CrossRef]
8. Hao, P.; Tang, S. Floating or settling down: The effect of rural landholdings on the settlement intention of rural migrants in urban China. *Environ. Plan. A* **2015**, *47*, 1979–1999. [CrossRef]
9. Gu, H.; Lin, Y.; Shen, T. Do you feel accepted? Perceived acceptance and its spatially varying determinants of migrant workers among Chinese cities. *Cities* **2022**, *125*, 103626. [CrossRef]
10. Dreger, C.; Wang, T.S.; Zhang, Y.Q. Understanding Chinese Consumption: The Impact of Hukou. *Dev. Chang.* **2015**, *46*, 1331–1344. [CrossRef]
11. Mulder, C.H. Putting family centre stage: Ties to nonresident family, internal migration, and immobility. *Demogr. Res.* **2018**, *39*, 1151–1179. [CrossRef]
12. Meng, X. Labor Market Outcomes and Reforms in China. *J. Econ. Perspect.* **2012**, *26*, 75–101. [CrossRef]
13. Shen, F.W.; Ye, W.X.; Wang, C.; Huang, X.H. Effects of Organizational Factors on Identification of Young Returnees from Urban Areas with Rural Societies—A Perspective of Adaptability. *Soc. Indic. Res.* **2023**, *167*, 363–390. [CrossRef]
14. Fan, C.C. Settlement Intention and Split Households: Findings from a Survey of Migrants in Beijing's Urban Villages. *China Rev.* **2011**, *11*, 11–41.
15. Liang, Z.; Li, Z.; Ma, Z. Changing Patterns of the Floating Population in China during 2000–2010. *Popul. Dev. Rev.* **2014**, *40*, 695–716. [CrossRef] [PubMed]
16. Zhao, Y.H. Causes and consequences of return migration: Recent evidence from China. *J. Comp. Econ.* **2002**, *30*, 376–394. [CrossRef]
17. Todaro, M.P. A Model for Labor Migration and Urban Unemployment in Less Developed Countries. *Am. Econ. Rev.* **1969**, *59*, 138–148.
18. Dustmann, C.; Fadlon, I.; Weiss, Y. Return migration, human capital accumulation and the brain drain. *J. Dev. Econ.* **2011**, *95*, 58–67. [CrossRef]
19. Constant, A.; Massey, D.S. Return migration by German guestworkers: Neoclassical versus new economic theories. *Int. Migr.* **2002**, *40*, 5–38. [CrossRef]
20. Klarin, T. The Concept of Sustainable Development: From its Beginning to the Contemporary Issues. *Zagreb. Int. Rev. Econ.* **2018**, *21*, 67–94. [CrossRef]
21. Manioudis, M.; Meramveliotakis, G. Broad strokes towards a grand theory in the analysis of sustainable development: A return to the classical political economy. *New Polit. Econ.* **2022**, *27*, 866–878. [CrossRef]

22. Fagerberg, J. Mobilizing innovation for sustainability transitions: A comment on transformative innovation policy. *Res. Policy* **2018**, *47*, 1568–1576. [CrossRef]
23. Bell, D.; Jayne, M. The creative countryside: Policy and practice in the UK rural cultural economy. *J. Rural. Stud.* **2010**, *26*, 209–218. [CrossRef]
24. Hall, P. Creative cities and economic development. *Urban Stud.* **2000**, *37*, 639–649. [CrossRef]
25. Hoey, B.A. From Pi to pie: Moral narratives of noneconomic migration and starting over in the postindustrial midwest. *J. Contemp. Ethnogr.* **2005**, *34*, 586–624. [CrossRef]
26. Floysand, A.; Jakobsen, S.E. Commodification of rural places: A narrative of social fields, rural development, and football. *J. Rural. Stud.* **2007**, *23*, 206–221. [CrossRef]
27. Fei, H.T. *Peasant Life in China: A Field Study of Country Life in the Yangtze Valley*; Routledge and Kegan Paul: London, UK, 1939.
28. Yang, H. The "half working and half farming" structure of rural China. *Agric. Econ. Probl.* **2015**, *36*, 19–32. (In Chinese)
29. Liang, Z.; Li, Y.F.; Yue, Z.S. Parental migration, children and family reunification in China. *Popul. Space Place* **2023**, *29*, e2673. [CrossRef]
30. Medaric, Z.; Gornik, B.; Sedmak, M. What about the family? The role and meaning of family in the integration of migrant children: Evidence from Slovenian schools. *Front. Educ.* **2022**, *7*, 1003759. [CrossRef]
31. Papero, D.V. Family Systems Theory and Therapy. In *Handbook of Family and Marital Therapy*; Wolman, B.B., Stricker, G., Framo, J., Newirth, J.W., Rosenbaum, M., Young, H.H., Eds.; Springer: Boston, MA, USA, 1983; pp. 137–158.
32. Ting, K.F.; Chiu, S.W.K. Leaving the parental home: Chinese culture in an urban context. *J. Marriage Fam.* **2002**, *64*, 614–626. [CrossRef]
33. Giles, J.; Mu, R. Elderly parent health and the migration decisions of adult children: Evidence from rural China. *Demography* **2007**, *44*, 265–288. [CrossRef]
34. Okah, P.S.; Okwor, R.O.; Aghedo, G.U.; Iyiani, C.C.; Onalu, C.E.; Abonyi, S.E.; Chukwu, N.E. Perceived Factors Influencing Younger Adults' Rural-Urban Migration and its Implications on Left Behind Older Parents in Nsukka LGA: Practice Considerations for Gerontological Social Workers. *J. Popul. Ageing* **2023**. [CrossRef]
35. Dustmann, C. Children and return migration. *J. Popul. Econ.* **2003**, *16*, 815–830. [CrossRef]
36. Caarls, K.; de Valk, H.A.G. Relationship Trajectories, Living Arrangements, and International Migration Among Ghanaians. *Popul. Space Place* **2017**, *23*, e2046. [CrossRef]
37. Kley, S. Explaining the Stages of Migration within a Life-course Framework. *Eur. Sociol. Rev.* **2011**, *27*, 469–486. [CrossRef]
38. Kou, A.; Mulder, C.H.; Bailey, A. 'For the sake of the family and future': The linked lives of highly skilled Indian migrants. *J. Ethn. Migr. Stud.* **2017**, *43*, 2788–2805. [CrossRef]
39. State Council. *Constitution of the People's Republic of China*; The National People's Congress of the People's Republic of China: Beijing, China, 2018.
40. Wang, Y. Housing cost burden, homeownership, and self-rated health among migrant workers in Chinese cities: The confounding effect of residence duration. *Cities* **2023**, *133*, 104128. [CrossRef]
41. Bernard, A.; Bell, M.; Zhu, Y. Migration in China: A cohort approach to understanding past and future trends. *Popul. Space Place* **2019**, *25*, e2234. [CrossRef]
42. de Haas, H. Migration and Development: A Theoretical Perspective. *Int. Migr. Rev.* **2010**, *44*, 227–264. [CrossRef]
43. Zhang, J.; Nazroo, J.; Zhang, N. Do migration outcomes relate to gender? Lessons from a study of internal migration, marriage and later-life health in China. *Popul. Space Place* **2023**, *29*, e59. [CrossRef]
44. Wu, S.S.; Ma, L.B.; Wang, L.C.; Chen, X.F.; Shi, Z.H. Differences of Social Space of Rural Migrant Labor Force: The Influence of Local Quality. *Land* **2023**, *12*, 644. [CrossRef]
45. Ward, Z. Birds of passage: Return migration, self-selection and immigration quotas. *Explor. Econ. Hist.* **2017**, *64*, 37–52. [CrossRef]
46. Bryan, G.; Morten, M. The Aggregate Productivity Effects of Internal Migration: Evidence from Indonesia. *J. Polit. Econ.* **2019**, *127*, 2229–2268. [CrossRef]
47. Munshi, K.; Rosenzweig, M. Networks and Misallocation: Insurance, Migration, and the Rural-Urban Wage Gap. *Am. Econ. Rev.* **2016**, *106*, 46–98. [CrossRef]
48. Cooke, T.J. Gender role beliefs and family migration. *Popul. Space Place* **2008**, *14*, 163–175. [CrossRef]
49. Taylor, J.E. The new economics of labour migration and the role of remittances in the migration process. *Int. Migr.* **1999**, *37*, 63–88. [CrossRef] [PubMed]
50. Cooke, T.J. Migration in a family way. *Popul. Space Place* **2008**, *14*, 255–265. [CrossRef]
51. Stark, O.; Bloom, D.E. The new economics of labor migration. *Am. Econ. Rev.* **1985**, *75*, 173–178.
52. Massey, D.S. Social structure, household strategies, and the cumulative causation of migration. *Popul. Index.* **1990**, *56*, 3–26. [CrossRef]
53. Tang, S.; Zhou, J.; Druta, O.; Li, X. Settlement in Nanjing among Chinese rural migrant families: The role of changing and persistent family norms. *Urban. Stud.* **2022**, *60*, 1083–1101. [CrossRef]
54. Xu, J.; Chen, Z.; Wu, J. Return of migrant workers, educational investment in children and intergenerational mobility in China. *Econ. Anal. Policy* **2022**, *76*, 997–1009.
55. Demurger, S.; Xu, H. Left-behind children and return migration in China. *IZA J. Migr.* **2015**, *4*, 10. [CrossRef]

56. Heering, L.; van der Erf, R.; van Wissen, L. The role of family networks and migration culture in the continuation of Moroccan emigration: A gender perspective. *J. Ethn. Migr. Stud.* **2004**, *30*, 323–337. [CrossRef]
57. Thomas, M.J.; Mulder, C.H.; Cooke, T.J. Linked lives and constrained spatial mobility: The case of moves related to separation among families with children. *Trans. Inst. Br. Geogr.* **2017**, *42*, 597–611. [CrossRef]
58. Kofman, E. Family-related migration: A critial review of European studies. *J. Ethn. Migr. Stud.* **2004**, *30*, 243–262. [CrossRef]
59. Bengtson, V.L. Beyond the nuclear family: The increasing importance of multigenerational bonds. *J. Marriage Fam.* **2001**, *63*, 1–16. [CrossRef]
60. Kolk, M. A Life-Course Analysis of Geographical Distance to Siblings, Parents, and Grandparents in Sweden. *Popul. Space Place* **2017**, *23*, e2020. [CrossRef]
61. Tulibaleka, P.O.; Katunze, M. Rural-Urban Youth Migration: The Role of Social Networks and Social Media in Youth Migrants' Transition into Urban Areas as Self-employed Workers in Uganda. In *Urban Forum*; Springer: Dordrecht, The Netherlands, 2023.
62. Wang, W.W.; Fan, C.C. Success or Failure: Selectivity and Reasons of Return Migration in Sichuan and Anhui, China. *Environ. Plan. A* **2006**, *38*, 939–958. [CrossRef]
63. Chuang, J.L. Factory Girls After the Factory: Female Return Migrations in Rural China. *Gend. Soc.* **2016**, *30*, 467–489. [CrossRef]
64. Pillemer, K.; Suitor, J.J. Making choices: A within-family study of caregiver selection. *Gerontologist* **2006**, *46*, 439–448. [CrossRef]
65. Shen, J.F. Changing Patterns and Determinants of Interprovincial Migration in China 1985–2000. *Popul Space Place* **2012**, *18*, 384–402. [CrossRef]
66. Jensen, P.; Pedersen, P.J. To stay or not to stay? Out-migration of immigrants from Denmark. *Int. Migr.* **2007**, *45*, 87–113. [CrossRef]
67. Gu, H.; Ling, Y.; Shen, T. Return or not return: Examining the determinants of return intentions among migrant workers in Chinese cities. *Asian Popul. Stud.* **2020**, *17*, 51–70. [CrossRef]
68. Tiebout, C.M. A pure theory of local expenditures. *J. Polit. Econ.* **1956**, *64*, 416–424. [CrossRef]
69. Oates, W.E. The Effects of Property Taxes and Local Public Spending on Property Values: An Empirical Study of Tax Capitalization and the Tiebout Hypothesis. *J. Polit. Econ.* **1969**, *77*, 957–971. [CrossRef]
70. Brasington, D.M.; Hite, D. Demand for environmental quality: A spatial hedonic analysis. *Reg. Sci. Urban Econ.* **2005**, *35*, 57–82. [CrossRef]
71. Carlsen, F.; Langset, B.; Rattso, J.; Stambol, L. Using survey data to study capitalization of local public services. *Reg. Sci. Urban Econ.* **2009**, *39*, 688–695. [CrossRef]
72. Dahlberg, M.; Eklof, M.; Fredriksson, P.; Jofre-Monseny, J. Estimating Preferences for Local Public Services Using Migration Data. *Urban Stud.* **2012**, *49*, 319–336. [CrossRef]
73. Xia, Y.; Lu, M. The "Three migrations of Mencius and Mother" between cities: An empirical study on the impact of public services on labor flow. *J. Manag. World* **2015**, *10*, 78–90. (In Chinese) [CrossRef]
74. Niedomysl, T. Residential preferences for interregional migration in Sweden: Demographic, socioeconomic, and geographical determinants. *Environ. Plan. A* **2008**, *40*, 1109–1131. [CrossRef]
75. Smith, D.P.; Rerat, P.; Sage, J. Youth migration and spaces of education. *Child. Geogr.* **2014**, *12*, 1–8. [CrossRef]
76. Chen, L.J.; Hu, J. Overeducation and Social Integration Among Highly Educated Migrant Workers in China. *Soc. Indic. Res.* **2023**. [CrossRef]
77. Branden, M. Couples' Education and Regional Mobility—The Importance of Occupation, Income and Gender. *Popul. Space Place* **2013**, *19*, 522–536. [CrossRef]
78. Borjas, G.J. The labor demand curve is downward sloping: Reexamining the impact of immigration on the labor market. *Q. J. Econ.* **2003**, *118*, 1335–1374. [CrossRef]
79. Boski, P. A Psychology of Economic Migration. *J. Cross Cult. Psychol.* **2013**, *44*, 1067–1093. [CrossRef]
80. Luo, J.; Chen, Y.F.; He, H.R.; Gao, G.L. Hukou identity and fairness in the ultimatum game. *Theor. Decis.* **2019**, *87*, 389–420. [CrossRef]
81. Mulder, C.H.; Malmberg, G. Local ties and family migration. *Environ. Plann A* **2014**, *46*, 2195–2211. [CrossRef]
82. Boyle, P.; Cooke, T.J.; Halfacree, K.; Smith, D. A cross-national comparison of the impact of family migration on women's employment status. *Demography* **2001**, *38*, 201–213. [CrossRef]
83. McKinnish, T. Spousal Mobility and Earnings. *Demography* **2008**, *45*, 829–849. [CrossRef]
84. Han, X.R.; Xue, P.; Zhang, N.N. Impact of Grain Subsidy Reform on the Land Use of Smallholder Farms: Evidence from Huang-Huai-Hai Plain in China. *Land* **2021**, *10*, 929. [CrossRef]
85. Xue, P.; Han, X.R.; Wang, Y.C.; Wang, X.D. Can Agricultural Machinery Harvesting Services Reduce Cropland Abandonment? Evidence from Rural China. *Agriculture* **2022**, *12*, 901. [CrossRef]
86. Wang, X.; Chen, X.; Zou, J.; Ren, Q. The Retrospect and Prospect of Domestic Research on the Influencing Factors of Rural Migrant Workers Returning Home to Start Business. *J. Beijing Union Univ.* **2018**, *16*, 86–99. (In Chinese)
87. Li, F.; Feng, H.; Ai, X.Q. The Research on Endowment of Land Resources and the Willingness of Migrant Workers to Return Home under the Background of Rural Revitalization. *Popul. Econ.* **2020**, *6*, 35–47. (In Chinese)
88. Lundholm, E. Are movers still the same? Characteristics of interregional migrants in Sweden 1970–2001. *Tijdschr Econ Soc Ge* **2007**, *98*, 336–348. [CrossRef]
89. van der Wiel, R.; Gillespie, B.J.; Tolboll, L. Migration for co-residence among long-distance couples: The role of local family ties and gender. *Popul. Space Place* **2023**, *29*, e2631. [CrossRef]

90. Su, Y.; Tesfazion, P.; Zhao, Z. Where are the migrants from? Inter- vs. intra-provincial rural-urban migration in China. *China Econ. Rev.* **2018**, *47*, 142–155. [CrossRef]
91. Wanner, P. Can Migrants' Emigration Intentions Predict Their Actual Behaviors? Evidence from a Swiss Survey. *J. Int. Migr. Integr.* **2021**, *22*, 1151–1179. [CrossRef]
92. Zhou, G.; Tan, H.; Li, L. Does Migration Experience Promote Entrepreneurship in Rural China? *China Econ. Q.* **2017**, *16*, 793–814. (In Chinese)
93. Li, S.; Su, R. Endowment and Integration: A Study of the Factors Influencing the Settlement Intention of the Floating Population. *South China Popul.* **2020**, *35*, 41–56+67. (In Chinese)
94. Zhu, Y.; Chen, W.Z. The Settlement Intention of China's Floating Population in the Cities: Recent Changes and Multifaceted Individual-Level Determinants. *Popul. Space Place* **2010**, *16*, 253–267. [CrossRef]
95. Zheng, C.; Sun, Q.; Lv, H. The New Rural Pension Scheme, Labor Supply, and the Eldercare Patterns in Rural China. *J. Shandong Univ.* **2023**, *257*, 61–76. (In Chinese) [CrossRef]
96. Massey, D.S. The Social and Economic Origins of Immigration. *ANNALS Am. Acad. Political Soc. Sci.* **1990**, *510*, 60–72. [CrossRef]
97. Zhang, L.X.; Lin, L.Z.; Sun, K.L. Research on the Influencing Factors of Migrant Workers' Entrepreneurial Willingness. *J. South China Agric. Univ.* **2016**, *15*, 65–77. (In Chinese)
98. Yi, F.; Wang, X. Urban-Rural Migration in the Digital Era. *J. South China Agric. Univ.* **2023**, *22*, 32–44. (In Chinese)
99. Mincer, J.A. Investment in Human Capital and Personal Income Distribution. *J. Polit. Econ.* **1958**, *66*, 281–302. [CrossRef]
100. Yuan, R.; Wen, S. Determinants and Effects of Return Migration in China. *Popul. Res.* **2017**, *41*, 71–83. (In Chinese)
101. Berger, M.C.; Blomquist, G.C. Mobility and destination in migration decisions: The roles of earnings, quality of life, and housing prices. *J. Hous. Econ.* **1992**, *2*, 37–59. [CrossRef]
102. Hunt, G.L.; Mueller, R.E. North American migration: Returns to skill, border effects, and mobility costs. *Rev. Econ. Stat.* **2004**, *86*, 988–1007. [CrossRef]
103. Pinés, D.d.H.; Sadka, E.; Zilcha, I. *Topics in Public Economics: Theoretical and Applied Analysis*; Cambridge University Press: Cambridge, UK, 1998.
104. Rabe, B.; Taylor, M.P. Differences in Opportunities? Wage, Employment and House-Price Effects on Migration. *Oxf. B Econ. Stat.* **2012**, *74*, 831–855. [CrossRef]
105. Plantinga, A.J.; Detang-Dessendre, C.; Hunt, G.L.; Piguet, V. Housing prices and inter-urban migration. *Reg. Sci. Urban Econ.* **2013**, *43*, 296–306. [CrossRef]
106. Ganong, P.; Shoag, D. Why has regional income convergence in the US declined? *J. Urban Econ.* **2017**, *102*, 76–90. [CrossRef]
107. Diamond, R. The Determinants and Welfare Implications of US Workers' Diverging Location Choices by Skill: 1980–2000. *Am. Econ. Rev.* **2016**, *106*, 479–524. [CrossRef]
108. Gottlieb, P.D.; Joseph, G. College-to-work migration of technology graduates and holders of doctorates within the United States. *J. Reg. Sci.* **2006**, *46*, 627–659. [CrossRef]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.