

The Impact of Land Property Rights on Rural-to-Urban Migration: Market Mechanisms and Government Mechanisms

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Abstract

This paper aims to examine the relationship between China's land tenure system and rural-to-urban migration. It distinguishes between two key scenarios: first, where land property rights are well protected (allowing for land leasing); and second, where land property rights are infringed upon (through government land expropriation with compensation). Using data from the China Health and Retirement Longitudinal Study (CHARLS), this study employs regression models for empirical analysis. The results indicate that a higher rate of land leasing is associated with a stronger willingness to migrate, whereas government land expropriation compensation significantly suppresses migration. The findings suggest that strengthening land property rights protection can promote voluntary and stable rural-to-urban migration, while forced land acquisition may weaken migration incentives. The paper concludes with policy implications and directions for future research.

Keywords

Land Property Rights, Rural Migration, Household Responsibility System, Land Expropriation Compensation, CHARLS.

1. Background and Literature Review

This paper explores the relationship between China's land tenure system and population migration. It first introduces the urban–rural dual land management system in China, and then analyzes the implementation of the Household Responsibility System and its impact on migration, providing a necessary theoretical perspective for this study.

1.1. China's Land System: Urban–Rural Dual Structure

In China, land resources are broadly divided into rural and urban categories, operating under a dual ownership system. Urban land is owned by the state, while rural land is collectively owned. The key differences between the two lie in usage rights: state-owned land use rights can be sold, transferred, or leased, and users have considerable autonomy over land development. In contrast, collectively owned land is primarily designated for agricultural purposes, with some portions allocated for rural housing, public infrastructure, and township enterprises. Large-scale development of such land requires state approval (Huang et al., 2017; Gao, Liu & Chen, 2020).

1.2. Property Rights Characteristics under the Household Responsibility System

The Household Responsibility System is a central institution governing agricultural land in China. Its primary feature is the allocation of collectively farmed land to individual households. In exchange, households fulfill state grain procurement quotas and pay taxes to obtain land use rights. These land contracts are periodically adjusted by village-level authorities, initially every one to two years, and later extended to 15 years or longer (Krusekopf, 2002). Gibson (2019) finds that following the implementation of this system, the productivity of rice, corn, and wheat

increased by approximately 8% to 12% annually. This demonstrates that the system effectively incentivized farmers, enhancing agricultural productivity and development.

1.3. Major Patterns of Population Migration in China

This paper identifies four types of migration in China: urban-to-urban, urban-to-rural, rural-to-rural, and rural-to-urban. According to data from the 2000 population census, rural-to-urban migration accounted for 40.7% of total migration, urban-to-rural migration for 37.2%, rural-to-rural migration for 18.2%, and urban-to-urban migration for only about 4% (Fang & Dewen, 2003). This indicates that rural-to-urban migration is the most dominant form. The large-scale movement of rural labor into cities has provided a substantial workforce to support urban development (Seeborg, Jin & Zhu, 2000).

Motivations and Process of Rural Migration

This phenomenon can be traced back to China in the 1980s, when development policies favored urban areas while rural technological advancement lagged behind. This led to a widening urban-rural income gap, prompting large numbers of rural residents to migrate to cities in search of employment opportunities (Seeborg et al., 2000). This trend significantly accelerated China's urbanization process. By 2017, the rural migrant population had exceeded 200 million (Guo & Qiao, 2020). In recent years, the Chinese government has adopted a more supportive stance toward rural migration. For example, a 2018 policy allowing street vending enabled migrants to sustain themselves in cities without formal employment, providing a legal means of livelihood (Ding et al., 2024).

1.4. Key Factors Influencing the Timing of Rural Migration

1.4.1. Short-Term vs. Long-Term Migration

In China, two forms of migration coexist: short-term and long-term migration. This paper argues that one key factor contributing to this temporal difference is land property rights.

1.4.2. Mechanisms Through Which Land Property Rights Affect Migration

The Household Responsibility System promotes migration primarily by lowering the opportunity cost of leaving rural areas while increasing rural income. By shifting incentives toward household-based production, it improves productivity, raises household income, and generates surplus labor (Seeborg et al., 2000). This creates the conditions for migration. Furthermore, whether rural land property rights are protected directly affects the duration of migration. When property rights are well protected, long-term migration becomes more feasible.

1.4.3. Well-Protected Property Rights--Market Mechanism

For land contractors, land rights are tied to rural household registration (*hukou*). According to the *Rural Land Contracting Law*, during the contract period, if a household relocates permanently to a small town, they retain their land contract rights. However, if they move to a large city and convert to non-agricultural *hukou* status, they lose these rights (Meng & Zhao, 2018). This implies that long-term urban settlement may result in the loss of land use rights, which is a key reason why rural migrants hesitate to remain in cities permanently. Conversely, if policies are structured appropriately, they can facilitate migration to urban areas.

1.4.4. Weakly Protected Property Rights (Expropriation)--Government Mechanism

The instability of land property rights is another important perspective. Agricultural land is subject to the risk of expropriation. According to relevant regulations, the government has the authority to expropriate private property in the name of "public interest," with discretion over what constitutes public use, and is required to provide fair compensation (Mullan, Grosjean & Kontoleon, 2011). When land is expropriated for development, households face the risk of

losing their land. Although compensation is promised, the act of expropriation itself undermines farmers' confidence and reduces their willingness to migrate.

2. Empirical Analysis

2.1. Data Source

The data used in this study are drawn from the China Health and Retirement Longitudinal Study (CHARLS). This survey aims to collect high-quality, nationally representative data on Chinese residents aged 45 and above, serving research on aging-related issues. The baseline national survey conducted in 2011 covered approximately 10,000 households and 17,500 individuals across 150 counties and 450 villages (or neighborhood committees). Follow-up surveys have been conducted biennially since then. All data are publicly released one year after collection.

2.2. Regression Model

$Y(\text{migration}) = \beta_0 + \beta_1 \times X_1(\text{land property rights}) + \beta_2 \times X_2(\text{age}) + \beta_3 \times X_3(\text{gender}) + \beta_4 \times X_4(\text{education}) + \beta_5 \times X_5(\text{income}) + \dots + \beta_n \times X_n(\text{health status})$

Dependent variable (Y): migration status or migration count.

Independent variables (X):

- **X₁ (Land property rights):** When farmers' land rights are well protected, migration may be facilitated by reducing uncertainty; conversely, insecure property rights may hinder migration. For example, Giles and Mu (2014) find that when farmers face the risk of land reallocation, their migration propensity decreases by 2.7%.
- **X₂ (Age):** Young and middle-aged individuals are more likely to migrate due to stronger labor capacity and economic needs, whereas elderly individuals and children face mobility and security constraints.
- **X₃ (Gender):** In China, the migration rate among males is generally higher than among females. Using a 1% sample from the 1990 census, Fan (2003) finds that males account for 71.9% of migrants, compared to 28.1% for females.
- **X₄ (Education level):** Rural individuals with higher levels of education are more likely to migrate to cities for education or employment, while those with lower education levels exhibit weaker migration intentions.
- **X₅ (Income level):** Lower-income rural residents tend to have a stronger aspiration to migrate to urban areas.
- **X_n (Health status):** Individuals in good health are better able to support migration and long-term settlement, whereas poor health constrains mobility.

These factors influence the variation in Y to different degrees, thereby shaping migration outcomes.

3. Market Mechanism: The Impact of Land Leasing on Migration

3.1. Baseline Regression

In this section, the dependent variable Y is migration status, and the key independent variable X₁ is the land leasing ratio. Control variables include log income, province, education level, gender, age, and health status. The sample is restricted to individuals with rural household registration (hukou = 1), as only rural residents possess land contracting and leasing rights. Additionally, individuals aged 80 and above are excluded to avoid bias from those who are unlikely to migrate due to physical constraints.

Regression results: The coefficient on the land leasing ratio is 0.376, indicating that a one-unit increase in the leasing ratio is associated with a 0.376 increase in the migration variable, and

the result is statistically significant. This suggests that higher land leasing ratios are conducive to migration.

3.2. Robustness Checks

Based on the baseline regression, four additional robustness checks are conducted by sequentially introducing new control variables:

- Second regression (adding Chinese Communist Party (CCP) member and Han ethnicity): coefficient = 0.623, significant.
- Third regression (adding marital status): coefficient = 0.637, significant.
- Fourth regression (adding private business ownership): coefficient = 0.652, significant.
- Fifth regression (adding family survival status): coefficient = 0.634, significant.

All robustness checks consistently indicate that the land leasing ratio has a significant positive effect on migration.

4. Government Mechanism: The Impact of Land Expropriation Compensation on Migration

4.1. Baseline Regression

This section employs a different dataset to examine the mechanism of government land expropriation compensation. The sample restrictions remain the same as above, including only rural hukou holders and individuals under the age of 80. The key independent variable is the government compensation ratio or a land expropriation dummy variable. Since land expropriation is treated as a dummy variable, the interpretation relies on between-group comparisons, namely comparing households whose land has been expropriated with those whose land has not.

Regression results: The coefficient on government compensation is -0.192, indicating that land expropriation has a negative effect on migration.

4.2. Robustness Checks

Table 1. Regression Results on the Impact of Government Mechanisms on Migration

| Migration | (1) | (2) | (3) | (4) | (5) |
|----------------------------------------|-----------|-----------|-----------|-----------|-----------|
| Land Expropriation Compensation | -0.192 | -0.301* | -0.314* | -0.522** | -0.473** |
| | (-1.151) | (-1.777) | (-1.773) | (-2.231) | (-2.149) |
| Log Income | 0.118** | 0.146*** | 0.144*** | 0.203*** | 0.180*** |
| | (2.56) | (3.06) | (3.01) | (3.29) | (3.01) |
| Gender | 1.292*** | 1.477*** | 1.529*** | 1.451*** | 1.341*** |
| | (9.76) | (10.01) | (10.02) | (7.36) | (7.15) |
| Health Status | 0.10 | 0.07 | 0.06 | 0.14 | 0.12 |
| | (1.61) | (1.04) | (0.89) | (1.49) | (1.33) |
| CCP Member | | -1.091*** | -1.127*** | -1.211*** | -1.119*** |
| | | (-4.718) | (-4.871) | (-4.324) | (-4.042) |
| Han Ethnicity | | 0.13 | 0.18 | 0.26 | 0.14 |
| | | (0.53) | (0.75) | (0.83) | (0.46) |
| Private Enterprise Ownership | | | | 0.35 | |
| | | | | (1.23) | |
| Parents Alive | | | | | 0.22 |
| | | | | | (1.03) |
| Constant | -1.790*** | -2.052** | -2.249*** | -2.894** | -2.694*** |
| | (-2.592) | (-2.574) | (-2.797) | (-2.353) | (-2.720) |
| Sample Size | 618 | 616 | 601 | 405 | 416 |

Note: t-statistics are reported in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Similarly, four robustness checks are conducted:

Second regression (adding CCP member and Han ethnicity): coefficient = -0.301, significantly negative.

Third regression (adding marital status): coefficient = -0.314, significantly negative.

Fourth regression (adding private business ownership): coefficient = -0.522, significantly negative.

Fifth regression (adding family status variables): coefficient = -0.473, significantly negative.

All results consistently show that government land expropriation compensation significantly suppresses rural-to-urban migration.

5. Analysis and Discussion

5.1. The Role of the Market Mechanism

The empirical results above indicate a positive relationship between the land leasing ratio and migration. One possible explanation is that when land property rights are well protected, farmers do not face the risk of losing their land. This allows them to lease out their land with confidence and earn rental income, while simultaneously seeking employment in urban areas to further increase their earnings. These two sources of income provide strong incentives for farmers and enhance their motivation to migrate. Moreover, China's urban-rural dual structure results in lower income levels in rural areas compared to cities, while urban development generates substantial demand for labor. This creates favorable opportunities for rural workers to migrate to cities.

5.2. The Role of the Government Mechanism

The negative coefficient associated with government-led land expropriation can be explained by the relatively low level of compensation, which is often insufficient to support farmers' living expenses after migrating to urban areas. This can be understood in two aspects:

First, compensation for land expropriation is often relatively low. If farmers continue cultivating their land over thirty years, they can accumulate stable income. However, once land is expropriated, compensation is typically provided as a one-time payment, after which no further income from the land is generated.

Second, under China's institutional framework, farmers sign land contracts with village collectives rather than directly with the state. Compensation funds are first allocated to the village collective and then distributed through multiple administrative layers. As a result, the amount ultimately received by farmers is often significantly lower than the nominal compensation.

Disputes over land expropriation are common, and many farmers have filed petitions related to such issues. Therefore, forced land expropriation tends to suppress rural-to-urban migration.

6. Conclusion

6.1. Summary of the Study

This paper examines how land institutions influence rural-to-urban migration under two distinct scenarios: when land property rights are well protected (allowing land leasing), and when they are not well protected (government land expropriation).

6.2. Main Findings

When land property rights are well protected and farmers are able to lease out their land freely, migration is promoted.

When land property rights are insecure and subject to government expropriation, such actions suppress rural-to-urban migration.

6.3. Policy Implications

If the government aims to encourage greater rural-to-urban migration, it should strengthen the protection of land property rights rather than undermine farmers' land rights.

6.4. Directions for Future Research

Future research may explore whether rural migrants are able to achieve improved living standards after moving to cities. It would also be valuable to examine the long-term sustainability of policies that encourage migration and their effects on migrants' welfare.

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