

# Analysis on Influencing Factors of Farmland Transfer Price in Heilongjiang Province

Lei YANG and Fenglian LIU<sup>1</sup>

*Institute of Land & Resources and Sustainable Development, Yunnan University of Finance and Economics, Kunming 650221, China*

**Abstract.** At present, there are still some problems in rural land circulation in Heilongjiang Province. Among them, the high price of land circulation is a prominent problem at present, and the price of land circulation is the most important factor affecting land circulation. In this paper, literature analysis, field investigation and interview are used to study the current situation and influencing factors of agricultural land transfer price in Heilongjiang Province, and further analyze the impact of agricultural land transfer price on land transfer. The results show that: (1) In recent years, the transfer price of agricultural land in Heilongjiang Province has been on the rise; (2) The price of farmland transfer will be affected by the factors of grain price, grain producer subsidy, land quality and transfer period; (3) The age of the head of household, the willingness of the head of household to cultivate, the area of agricultural land transfer, the proportion of non-agricultural income, and the types of food planted have no significant effect on the transfer price of farmland.

**Keywords.** Agricultural land transfer price, influencing factors, grain prices

## 1. Introduction

The report of the 19th National Congress of the Communist Party of China emphasizes: “The problem of farmers in agriculture and rural areas is a fundamental problem related to the national economy and people’s livelihood, and it is necessary to always take solving the problems of agriculture, rural areas and farmers as the top priority in the work of the whole Party” [1]. Rural land, as the living guarantee for farmers, is the key element to realize agricultural development and increase farmers’ income. Farmland circulation is of great significance for safeguarding the rights and interests of farmers, promoting the development of agriculture and rural economy, and maintaining the stability of rural society. It is an important support for developing agricultural and rural modernization and realizing rural revitalization strategy. To deeply understand the problem of rural land transfer, it is necessary to investigate specific areas respectively, make specific analysis according to the actual situation and existing problems in different provinces, and put forward targeted suggestions and measures.

The price of farmland transfer price not only affects the efficiency of agricultural

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<sup>1</sup> Corresponding Author, Fenglian LIU, Institute of Land & Resources and Sustainable Development, Yunnan University of Finance and Economics, Kunming 650221, China; Email: 305711428@qq.com.

land transfer, but also concerns major issues such as the protection of farmers' rights and interests and the "non-grain conversion" of cultivated land, which has become a hot topic for many scholars [2-4]. Through literature review, it can be seen that the current agricultural land transfer problem has attracted the attention of academic circles [5-8]. Most of the research contents are related to agricultural land transfer, and there are few researches on the influencing factors of agricultural land transfer price; Most of the research methods adopt different econometric models; The research objects are generally nationwide, and some scholars take a certain province or several provinces as their research objects, while few take specific cities, counties and villages as their research objects. Generally speaking, scholars tend to choose different research perspectives, such as: from the perspective of agricultural land property rights price, from the perspective of agricultural land transfer in and out, or from the perspective of farmers' personal factors, agricultural subsidies, connotation and characteristics of agricultural land price. On the whole, the existing studies mainly focus on quantitative analysis, while qualitative analysis is slightly insufficient. The research area is relatively limited, especially the research results of agricultural land transfer price in Heilongjiang Province are scarce. Therefore, this paper explores the influencing factors of agricultural land transfer price in combination with the actual situation of Heilongjiang Province, in order to provide some reference for guaranteeing food security and farmers' interests.

Heilongjiang Province is a major agricultural land resource province, a major grain production province and an important commodity grain base in China. For 18 consecutive years, Heilongjiang Province has adhered to the red line of cultivated land protection and always adhered to the balance of occupation and compensation, turning the "Great Northern Wilderness" into a "Great Northern Warehouse", giving full play to the role of the "ballast stone" of national food security. In this paper, Heilongjiang Province is selected as the research object, and its total land area is 473,000 square kilometers, accounting for 4.9% of the total land area of the whole country; Agricultural land covers an area of 39.502 million hectares, accounting for 83.5% of the total land area of the province. In 2019, the province's grain output was 75.03 million tons, ranking first in the country. It is very important to promote land circulation for agricultural development in Heilongjiang Province. However, at present, the speed and process of land circulation in Heilongjiang Province have not reached the expected goal. According to the investigation, it is found that the price of agricultural land transfer is the key factor affecting land transfer, and land transfer is an important thrust to effectively allocate rural resources, improve land use efficiency, promote agricultural production and income increase, and boost rural revitalization.

## **2. Influencing Factors of Agricultural Land Transfer Price**

Combined with the local actual situation, this paper argues that the factors that affect the agricultural land transfer price in Heilongjiang Province mainly include grain price, grain subsidy, agricultural land quality, transfer period, local economic development level and location factors of these aspects, and have no obvious correlation with the farmers' willingness to cultivate, the householder age, non-agricultural income, agricultural land transfer area, and the types of food planted.

### 2.1. Price of Grain

Grain price has a significant impact on the change of agricultural land transfer price in Heilongjiang Province, and the fluctuation of grain price can be divided into price increase and price decrease. On the one hand, when food prices rise, it will help to enhance the motivation of farmers to expand their business scale and stimulate the demand for agricultural land transfer, while the land supply is limited, thus promoting the increase of land transfer rent, which will lead to the increase of the factor cost of agricultural land management, squeezing part of farmers' income, which is not conducive to the actual producers engaged in agriculture. On the other hand, the decline in the price of agricultural products will raise the willingness of some farmers to transfer out their land. Farmers who used to engage in large-scale agricultural production were worried that they could not bear the risks brought by grain price reduction because they did not accurately judge the future grain price trend, and did not dare to raise the price rashly and transfer into the land on a large scale. Farmers who originally had the willingness to transfer out could only transfer out according to the price of the previous year or cultivate their own land because they were unwilling to transfer out at a reduced price. As a result, the overall farmland transfer price in Heilongjiang Province shows the characteristics of "easy to rise and difficult to fall", that is, the grain price rises, and the agricultural land transfer price rises with it; However, when the price of grain falls, the price of land will not fall even if it does not rise, which is characterized by "Ratcheting effect".

### 2.2. Grain Subsidies

The original intention of the state to issue food subsidies is to encourage grain production and stimulate farmers' enthusiasm to grow grain, while farmers pay more attention to their actual income [9]. Although the state has continuously raised grain subsidies and implemented the policy of purchasing some grain crops at the protected price, farmers have said that "farming does not make much money, and those who have the ability to go out to work". Some scholars found that the effect of food subsidies on promoting farmland circulation, food production and improving farmers' income level was not obvious. Although the scope and intensity of China's agricultural subsidies have been expanded and improved, the existing subsidies have different impacts on small farmers and large growers. For small farmers, the increase of food subsidies can indeed make up for losses or raise the level of agricultural income, but for large grain growers, although subsidies to producers may all belong to the actual grain, the land price with food producer subsidies is obviously higher than that without subsidies in previous years. That is to say, the grain subsidy indirectly leads to the increase of agricultural land transfer price, and the subsequently increased in land transfer price offsets part of benefits brought by the grain subsidy, so that the transfer can get more benefits from the subsidies. In other words, the increase of agricultural subsidies may make small farmers reluctant to rent out their farmland or raise the rent of farmland in the process of transfer, which makes the cost of renting farmland by large growers rise, and then reduces the promotion of subsidies from grain producers to renting farmland by large growers.

### *2.3. Agricultural Land Quality*

The income of farmers engaged in agricultural production is related to three factors, namely farmland transfer price, production cost and unit grain output, in which unit grain output is mainly determined by the quality of farmland. The marginal output of poor-quality farmland is very small or even negative, while the marginal output of high-quality farmland is always greater than zero, which can help farmers obtain sustained high yield [10]. Therefore, compared with inferior farmland, the inflow side of farmland is more inclined to transfer to high-quality farmland. The higher the quality of farmland, the higher the grain yield, the greater the production value of farmland and the better the corresponding economic benefits. High-quality agricultural land transfer transactions are less difficult and more demanding, which is one of the reasons why agricultural land quality affects the transfer price. Some scholars believe that the higher the quality of farmland is, the stronger its guarantee function is, and the higher the transfer price must be. In addition, the transfer price of agricultural land in different locations is generally different. For dry land, the transfer prices within the village are relatively uniform, because the amount of farmland allocated by each household is small and the quality of farmland allocated by each household is mixed in order to be fair; However, the difference of agricultural land quality between villages and towns and between cities and counties has a great influence on the transfer price, which is due to the different geographical location, different land topography, different soil fertility and different average yield.

### *2.4. Circulation Period*

At present, the farmland circulation period in Heilongjiang Province is short, mainly one year, followed by three years, and the circulation period over three years is very few. First of all, the economic level of Heilongjiang Province is relatively backward in the whole country, and social security is not fully popularized in rural areas. Therefore, farmers attach great importance to the social security function of agricultural land. Farmers don't want to give up their right to use land completely, and they don't want to be bound by it, but only get a meager income. They regard land as the capital for old-age care and a retreat for failure to go out and struggle hard, so they are unwilling to transfer land for a long time. Secondly, the one-year transfer price is relatively high, and it is relatively easy to transfer out; The longer the farmland transfer period, the lower the transfer price, because the delivery method is cash settlement, which makes it difficult for banks to borrow money. Large grain growers generally borrow private capital to contract land, and the interest is much higher than that of bank loans, resulting in higher transaction costs and production and operation costs. The difference between the three-year transfer price and the one-year transfer price is equivalent to the interest cost. Thirdly, there is a lack of professional circulation contract in the process of circulation, and it is difficult to guarantee the interests of long-term circulation. In addition, due to the uncertainty of policy expectations, the outflow side of agricultural land is worried about the impact of the increase of agricultural subsidies on its own interests. In order to facilitate the adjustment of transfer price at any time, they are generally reluctant to transfer for a long time.

### *2.5. Local Economic Development Level and Location Factors*

Regional economic development level and location factors are closely related to agricultural land transfer price. Generally speaking, the higher the level of local economic development, the better the agricultural infrastructure, the lower the corresponding planting time cost and operating cost, and the higher the price of agricultural land transfer. In areas with better economic development, the secondary and tertiary industries are relatively developed, the non-agricultural income accounts for a large proportion, the income level of farmers is higher, and there are more guarantees in other aspects. The less the dependence on the social security function of farmland is, the stronger the willingness of farmers to transfer land is, and the less sensitive they are to the level of transfer price. The price of farmland transfer in developed areas is higher than that in underdeveloped areas, because the agricultural land transfer market in developed areas is more perfect and there are more transfer modes, so the transfer price is relatively high. The difference of location conditions will also affect the transfer price of agricultural land. The closer to the city, the more convenient the transportation is, which can greatly reduce its transportation time and transportation cost; Developed transportation is also beneficial to the allocation of labor resources and the concentration of population, which makes it less difficult to hire labor, indirectly reduces labor costs, and increases the transfer price of agricultural land.

## **3. Conclusions and Suggestions**

This paper holds that there are three main factors that affect the price of agricultural land transfer in Heilongjiang Province. First, agricultural land factors, including agricultural land quality and the period of agricultural land transfer. Among them, there was no significant difference in the transfer price of similar quality agricultural land, and the transfer price of different quality agricultural land distinguishes the land price according to the grain yield. However, there was little difference in the annual land price between towns and villages, showing an overall upward trend. Different location and terrain conditions will also cause the change of agricultural land transfer price; The term of agricultural land transfer is one of the influencing factors of transfer price, but the degree of influence has not changed much over the years. The difference of transfer price in different years is about equal to the interest cost of borrowing. Second, economic factors, including food prices and local economic development level. Among them, grain price is the most important influencing factor of agricultural land transfer price in Heilongjiang Province, which has the characteristics of "grain price rises, land price rises", "grain price falls, land price remains unchanged"; The higher the level of economic development in different villages and towns, the better the degree of traffic development and related supporting facilities, and the higher the transfer price of agricultural land. Third, policy factors, mainly subsidies from grain producers, have driven the enthusiasm of planting related crops.

The excessively high price of farmland transfer can improve the income of some non-agricultural population, but in the long run, it will discourage the enthusiasm of growing grain, inhibit the transfer of land, and be detrimental to national food security and farmers' wealth. According to the current situation, if the land price continues to rise, the enthusiasm of farmers to plant these kinds of food crops will be seriously affected, and even the cash crops with higher benefits will be replanted, resulting in

“non-food”, and the consequences will be very serious. Therefore, the author puts forward the following suggestions: (1) The current agricultural land transfer market is not mature, so the government should take measures to control the blind increase of land price, scientifically set the local standard land price according to factors such as agricultural land quality, grain output and location conditions, and provide guidance for both parties to determine the transfer price, and encourage banks to reduce the difficulty of credit to farmers; (2) standardize the circulation procedures, build a service platform for agricultural land circulation, encourage farmers to sign standardized circulation contracts, and provide legal aid to farmers according to the circulation contracts in case of disputes, so as to promoting the long-term circulation of agricultural land and stimulate agricultural business entities to increase their enthusiasm for agricultural land investment; (3) strengthen the construction of agricultural infrastructure and promote the development of modern agriculture; Improve the management means to carry out fine management of cultivated land, in order to increase grain output, form large-scale operation and reduce operating costs. Increase investment in agricultural technology, provide technical popularization services, organize training for farmers, and improve production and operation efficiency; (4) further improve the agricultural subsidy mode, and control the excessive increase of agricultural land transfer price while giving targeted subsidies, so that grain growers can really benefit from it; (5) adhere to the policy of food protection price to ensure the minimum income of farmers. When the market conditions are bad or food prices are falling, the economic benefits of large-scale grain farmers are guaranteed by means of subsidies. At the same time, the guarantee mechanism should be improved to provide corresponding protection for market risks and natural risks, give disaster subsidies to trapped farmers when natural disasters occur, and let relevant units help coordinate and appropriately reduce the current agricultural land transfer price.

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