

# Pension Risks and Aversion of Chinese Peasants: An Empirical Study based on the View of Livelihood Capital

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**Abstract:** The all kinds of livelihood capital that farmers own have a very strong influence on their senses of pension risks. However, the thought that “the more abundant livelihood capital that farmers own presently, the less their pension risks are” is not true. Meanwhile, farmers presently still tend to prefer informal tactics for pension risks to formal social pension insurance system. With the ever-increase of pension risks for Chinese farmers, being over-reliant on informal aversion tactics for pension risks precisely indicates the urgency and necessity of constructing the formal social pension insurance system.

**Keywords:** Farmers Pension; Pension Risks; Rural Endowment Insurance

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Under the social background of aging rural population, the problem of farmers' providing for the aged has become the most prominent and key problem in the process of new rural construction and harmonious and healthy development of socialist society. Pension risk is a kind of social security risk that everyone must face and objectively exists. It is the deviation between the actual results and the predicted results caused by the uncertainty of people's decision-making and objective conditions for the future pension behavior.<sup>[1]</sup> With the transformation of economy and society and the change of family structure, the function of family old-age security in the traditional sense is weakening day by day. However, the long-term absence and lag of social old-age insurance system in rural areas make the life of the majority of farmers in our country more and more faced with many uncertain factors, In particular, the aging population continues to intensify and the speed of rural population flow is accelerating, which further increases the pension risk of farmers. For a long time, China has implemented the urban-rural social security system in the urban-rural social and economic dual structure. The rela-

tively sound urban endowment insurance system provides more choices for the elderly in cities to resolve the pension risk, while the majority of farmers can only choose to rely on the role of family when rationally avoiding the pension risk. Many studies on Farmers' livelihood activities show that the ability of rural families to resist livelihood risks and reduce livelihood vulnerability depends on the richness of family livelihood capital, and eliminating the risk of social members depends on the ability and reserve of individuals or families to resist various risks and reasonable institutional arrangements. <sup>[2, p240-242]</sup> therefore, the livelihood capital owned by farmers themselves and their families has also become an important perspective to investigate the pension risk of farmers.

In order to achieve positive livelihood results and reduce various risks, it is impossible for farmers to rely on one asset alone. There must be different types of assets, especially for those with limited assets. 2000 UK's department for International In this framework, financial assets are divided into physical assets and financial assets, that is, livelihood assets include human assets, natural assets, physical assets, financial assets and social assets. Then, what is the relationship between the livelihood capital status of farmers and their pension risks? How do they choose strategies to resolve and avoid the increasingly severe pension risk? From the perspective of livelihood capital in the framework of sustainable livelihoods, this paper uses the first-hand data from the field survey to make an empirical analysis to examine the above two issues.

## **1. Variables , models and their explanations**

The data used in this research comes from the nationwide survey on "labor and social security issues" organized by the Institute of social policy of Central South University of political science and law in January 2009. According to the level of economic development, the survey selected 3 administrative villages in 10 provinces including Zhejiang, Jiangsu, Shandong, Henan, Hubei, Hunan, Anhui, Guangxi, Sichuan and Shaanxi, and collected about 35 households in each selected village for household questionnaire interview 1050 questionnaires were collected,

and 1032 questionnaires were collected effectively. Through sampling evaluation, it shows that the sample is representative.

### *1.1 Selection of dependent variable*

The existence of risk is the normal development of human society. Beck (1984) regarded “risk” as a major feature of modern society, and even regarded “risk society” as a new social form. In the study of risk definition, “uncertainty of loss” is the most common definition in risk theory. For the majority of farmers in China at this stage, the risk is first manifested in the difficulty of maintaining the basic life. Even in the areas that have achieved a well-off society, once disasters, family members’ diseases and even children’s tuition occur, the basic life of farmers will be severely challenged. The so-called pension risk refers to the contingency and uncertainty that people may suffer from survival risks due to the lack of basic life security when they are old, including the uncertainty of risk occurrence and risk degree. <sup>[3]</sup> it is a relatively broad concept.

dependent variable	option	Number of people	proportion (%)
Are you worried about providing for the aged	Yes (=0)	642	62.9
	No (=1)	379	37.1
	total	1021	100.0

Risk measurement is an extremely complex system engineering. Researchers often make the respondents identify and rank according to some key factors. In view of the fact that the risk of providing for the aged is a kind of subjective worry of farmers about the problems they face in their basic life after they are old and the complexity of the risk measurement itself, this paper concretes the risk of providing for the aged as “are you worried about the problem of providing for the aged” (choose worry to assign 0, choose not worry to assign 1), and table 1 shows the respondents’ answers to this question. It can be seen that among the 1021 farmers interviewed, 62.9% felt the threat of pension risk, while only 37.1% chose not to worry about the future pension problem. This fully shows that with the increasing aging of the rural population and the gradual disintegration of the traditional way of providing for the aged, the risk of providing for the aged of rural residents is increasing, and their awareness of the risk of providing for the aged is also increasing. So, what kind of situation is the livelihood capital of the farmers who choose

to worry about or not worry about the pension problem? This is the main content to be studied below.

## ***2.2 Independent variable selection and hypothesis***

Livelihood capital is the most important guarantee for farmers to resist risks and reduce livelihood vulnerability. In the framework of sustainable livelihoods, livelihood capital includes human capital, material capital, financial capital, natural capital and social capital. With the help of this analytical framework, this paper selects three variables in human capital, including education years, total family labor force and health status, two variables in physical capital, including present value of housing and family fixed assets, and the total annual income in financial capital. Income and total family savings are two variables, the cultivated area in natural capital and the large number of family in social capital are one variable respectively, and there are nine independent variables in different dimensions to investigate the pension risk of farmers. And make a hypothesis: the richer the livelihood capital of farmers, the smaller the pension risk they face. Table 2 lists in detail the descriptive statistics of these nine explanatory variables in the sample and the prediction of the impact direction of each variable on Farmers' pension risk.

## ***3.3 Statistical model and its explanation***

From the selected variables, it can be found that farmers' pension risk is a dummy variable, which does not meet the basic requirement that the dependent variable must be a continuous variable in general linear regression, so logistic regression analysis is used. Among the 9 independent variables, whether the family is large or not is a dummy variable (not assigned to 0, but assigned to 1). The health status of farmers is a 5-order variable, which can be approximately regarded as a continuous variable for statistical analysis. The other seven variables are continuous variables, and the independent variables also meet the basic requirements of logistic. In this study, SPSS16.0 is used to make logistic regression statistics on the above variables by compulsory inclusion. Table 3 lists the regression analysis results between farmers' pension risk and various independent variables. It is not difficult to find that, among the nine independent variables, the total family labor force (- 0.178), cultivated land area (0.002), total annual income (0.389), total family savings (0.266) and large family (0.316) have a significant impact on the pen-

sion risk, while the other four variables are not significant. On the whole, the model also has a high significant level (chi square = 39.809; sig. = 0.000), indicating that the model has a certain explanatory power.

First of all, we focus on the two variables of human capital dimension (SIG. = 0.008) and financial capital dimension (SIG. = 0.005), which play a very significant role (SIG. < 0.01). This fully shows that although old-age care is a multi-dimensional problem, mainly including three aspects of economic sources, life care and spiritual consolation, whether there is enough strong economic security is always the core issue of old-age care in the case of low level of rural social services. Under the current conditions of agricultural productivity in China, the total number of family labor and the growth of the whole year The income level can directly reflect the amount of farmers' economic income. At the same time, the more the total labor force, the smaller the pension risk, which is in line with the previous research hypothesis, but the annual total income variable is not consistent with the research hypothesis. The more the annual total income, the more worried the farmers are about their pension problem, which is worth discussing. With the continuous migration of rural family surplus labor force, a large part of rural family income is from migrant workers. However, the high income of migrant workers is not as stable as the income of urban residents. Once their age increases, most people can only return to the land, and their income will decrease or even lose, which makes them lower As a result, they are more worried about their pension problems.

Secondly, cultivated land area (0.002), total household savings (0.266) and large family (0.316) also have significant effects on pension risk (SIG. Values are 0.056, 0.031 and 0.055 respectively), which indicates that the natural capital, financial capital and social capital owned by farmers have different degrees of impact on their future pension risk. However, the analysis results of these three variables are inconsistent with the research hypothesis. As far as the cultivated land area owned by farmers is concerned, it is very likely that after they cultivated a large area of agricultural crops, on the one hand, they did not have enough time and energy to go out of the village to seek higher income opportunities; on the other hand, in recent years, the cost of agricultural production has been rising with the overheated growth of economy, and the agricultural output of farmers is not high,

which makes the current income and income of farmers low. Therefore, farmers with more non-agricultural income are more aware of the pension risk than those with more non-agricultural income.

## **2. Strategies for farmers to deal with pension risks**

If there is a risk, the risk subject needs to choose the corresponding strategy to deal with it on the basis of risk identification and its own conditions. Risk management strategy is a way to eliminate concerns when people feel the risk and reduce losses when they encounter the risk. The World Bank (2000) believes that risk management mechanism can be divided into formal mechanism and informal mechanism, and the treatment strategies are hierarchical, and generally can be divided into risk reduction strategy, risk mitigation strategy and risk treatment strategy. The former includes the market-based activities and the mechanism provided by the government, while the latter mainly refers to the internal treatment of individual farmers with the help of family or community.

However, farmers in developing countries usually lack formal market-based risk management mechanism. They can only provide self insurance by changing their production and consumption activities. Saving and informal security mechanism are usually important strategies to ensure their consumption stability. Ma Xiaoyong (2006) and other studies show that Chinese farmers generally avoid livelihood risks only through informal mechanisms such as risk co-ordination within the social network, cross period income transfer and conservative production behavior, and lack formal risk aversion mechanisms including social security and commercial insurance.<sup>[4]</sup>

In fact, there are formal and informal ways for farmers to deal with pension risk. The formal pension risk management strategy is directly intervened by the state and maintained by system and law, while the informal pension risk management strategy has no state intervention and can only be maintained through moral or blood relationship. The former includes that farmers can get old-age support from endowment insurance institutions, government assistance and other ways,

while the latter can only get old-age support from their children, relatives, communities (neighbors, village groups and township enterprises) and themselves. The relationship between the two is complementary rather than substitution. <sup>[5]</sup>

From the content of pension, the pension mainly includes three aspects: economic security, life care and spiritual comfort. The key to the problem of providing for the aged is who will provide the resources for the aged. The resources for the aged are first expressed in the economic resources. Therefore, how to answer the question of “how to solve the source of income after old age” can, to a certain extent, well show what kind of strategies they choose to deal with the pension risk. According to the survey (Table 4), at present, nearly 60% of the farmers believe that their old age economic resources come from their children, nearly 30% of the farmers rely on their own farming and savings and family property to solve the problem of economic resources, while less than 13% of the farmers believe that their old age economic resources can be obtained by the government. This fully shows that the traditional concept of “raising children for old age” is still relatively strong in rural areas. Farmers always have a sense of dependence on family support and self support, but they don't have much expectation for the government led social support. At the same time, table 4 also reflects the farmers' expectations of life care after old age. More than 90% of the surveyed farmers believe that the life care for the elderly depends on their children, themselves or their boss, and less than 90% of them expect to get life care through the government led way 10%, which is consistent with the conclusion that farmers prefer informal pension risk aversion strategy, but lack confidence in formal pension risk management strategy. However, it is worth emphasizing that farmers do not place too much expectation on the social endowment insurance, which does not mean that farmers have no realistic demand for the formal endowment risk management strategy, because the long-term absence of the government on the rural endowment problem and the failure of the old rural endowment insurance system make farmers dare not rely too much on the formal endowment security welfare.

### 3. Conclusion

With the continuous advancement of rural reform, the pension problem of farmers has increasingly become an important issue in the “three rural issues”. At present, there are three main forms of rural endowment insurance in China, namely family endowment insurance, community (collective) endowment insurance and social endowment insurance. Although the new rural endowment insurance system has been promoted in many counties and cities in China, the traditional family endowment insurance will still exist as the main form of Elderly Security for a long time. However, a series of problems, such as the accelerated aging of rural population, the changes of rural family structure caused by the family planning policy, the transfer of rural surplus labor force, the decline of the centripetal force and cohesion of rural families, have led to the continuous degradation of the function of family pension in rural areas, coupled with the impact of market economy on the whole rural economy, Objective to enhance the farmers’ awareness of pension risk. This study found that: farmers have a variety of livelihood capital has a strong impact on their awareness of pension risk, but it is not that the richer the livelihood capital farmers currently have, the smaller their pension risk. Pension risk belongs to “long-term risk”. Whether they are worried about the uncertainty that may occur several years or even decades later is also strongly related to their income expectations after they get old. At the same time, compared with the formal social endowment insurance system, the current farmers still tend to choose informal pension risk management strategies, such as children, relatives, communities (neighbors, village groups and township enterprises, etc.) and rely on themselves to get pension support. In the case of the increasing risk of farmers’ pension, this excessive reliance on informal risk aversion strategy shows the urgency and necessity of establishing a formal social pension insurance system in China.

Based on the above data analysis and research conclusions, the following issues need to be further discussed in this paper:

#### ***3.1 Accelerating the development of new rural endowment insurance system***

Although the research results show that farmers still tend to choose family or self pension to avoid pension risk, from the answer to another question “do you

think the most important project in the rural social security system”, more than 50% of the farmers choose the rural endowment insurance system, and it is the most one of all the alternative projects, which shows that the majority of farmers have a strong demand for the formal endowment insurance system. On the basis of summing up the problems of the old rural endowment insurance system and fully considering the needs of farmers, it should be the focus of all walks of life to study how to better promote the pilot of the new endowment insurance system and realize the comprehensive coverage of the social endowment insurance system in rural areas.

### ***3.2 How to raise farmers' income***

The pension risk and security ability of the farmers are firstly reflected in the economic income of the farmers. The survey also found that the biggest difficulty of Restricting Farmers to increase their income is the lack of funds (31%), which is directly related to the backwardness of China's rural financial market; 27% of farmers believe that the lack of technology is the biggest problem in the process of their development and production. Most of China's agricultural production is still in the stage of traditional agriculture, and the goal of scientific and technological agriculture has not been fully realized. Farmers lack the ability to accept, digest, absorb and apply new technologies and new achievements, which makes the contribution rate of science and technology very low in rural areas. On the other hand, farmers lack employment skills, which makes it difficult to achieve income increase through labor transfer, and it is also difficult to start their own businesses in agriculture, thus reducing the opportunity to increase income; In addition, lack of information (13.9%) and lack of labor force (12.5%) are also two major obstacles. These results provide some ideas for solving the problem of increasing farmers' income and enhancing their risk tolerance and economic security ability.

### ***3.3 On the construction of home care service system for the elderly in rural areas***

Farmers' pension is not only facing the risk of economic security, but also the risk of life care and spiritual comfort. In fact, home-based care for the elderly in rural areas is a systematic social service system for the elderly led by the government. This system is based on the family and relies on the rural community, and introduces professional teams to provide door-to-door services for the elderly in rural

areas, so as to meet the needs of daily care, life care and spiritual comfort for the elderly in rural areas. With the continuous improvement of the rural economic level and the increasing attention of the country to the rural old-age security, the risk of “material old-age” of farmers will be alleviated to a great extent, and more and more prominent is their “spiritual old-age” risk. The advantages of home-based care for the elderly in rural areas are not only to give full play to the role of family in the support, care and spiritual comfort of the elderly, and to affirm the traditional status of home-based care for the elderly, but also to a certain extent to alleviate the huge pressure brought to the current social and economic development after the rural care for the elderly is completely pushed to the society. Therefore, it is of great significance to study how to promote the construction of home-based care service system for the elderly in rural areas to solve the pension risk of farmers in the future.

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