

A Literature Review of Studies on Financial Exclusion in Rural China

Zixuan Xia, Weixin Xie, Haobin Chen, Jiao Wang*

School of Economics, Guangzhou College of Commerce, Guangzhou, China

* Corresponding author: Jiao Wang (Email: 980709571@qq.com)

Abstract: Financial exclusion is regarded as one of the hotspots and difficulties in recent years, of which the aggravation will aggravate the gap between urban and rural areas, hinder the promotion of inclusive finance, increase the resistance to the implementation of rural revitalization strategy, and even affect the development of agricultural economy in China. Since 2019, in the face of complicated international situation and continuous domestic epidemic situation, it has played an important role in providing basis and reference for China to promote inclusive finance and rural revitalization strategy through carrying out in-depth research on financial exclusion and improving the research system of financial exclusion under the new economic situation. Therefore, this paper combs the relevant literature from the regional level, county and township level and farmers level, summarizes the common contents of policy recommendations and puts forward new research direction suggestions.

Keywords: Financial exclusion, Literature review, Suggestion.

1. Introduction

Rural revitalization has once again been listed as one of the overall requirements, main objectives and policy orientations of economic and social development by the Report on the Implementation of the National Economic and Social Development Plan in 2022 and the Draft National Economic and Social Development Plan in 2023 (hereinafter referred to as the Report). Inclusive Financing can effectively promote economic growth in rural areas and narrow the gap between urban and rural areas, and plays an important role in promoting rural revitalization strategy. In recent years, experts and scholars in the financial field have analyzed the development status, development prospects and development problems of rural Inclusive Financing from various aspects, but they lack in-depth research from the perspective of financial exclusion.

Financial exclusion, also known as financial exclusion, has not been clearly defined in academic circles for the time being. The early research perspective of financial exclusion is mainly based on financial geography [1]. The follow-up continues to heat up, and the research scope also extends to management, economics, sociology and other fields. Financial exclusion is multi-dimensional, and it is difficult to form a unified definition, but it is mainly summarized into six dimensions: geographical exclusion, evaluation exclusion, conditional exclusion, price exclusion, self-exclusion and marketing exclusion [1], while Leyshon et al. (1993) interprets financial exclusion as the behavior and process that hinders specific social strata or groups from obtaining formal financial services [2].

There are few researches on financial exclusion theory in China, but in recent years, with the development and deepening of Inclusive Financing, green finance, digital finance and other theories, the research on financial exclusion theory has gradually warmed up, and a series of empirical analyses related to financial exclusion theory have appeared.

2. The Research Level of Rural Financial Exclusion Research in China

2.1. Regional level

2.1.1. Regional perspective

Xu Shengdao (2008) used the likelihood function maximization method of negative binomial distribution to estimate the model parameters, and concluded that three variables, government ownership, added value of township enterprises and farmers' financial literacy, have significant positive effects on alleviating financial exclusion [3]. Huang Hongguang et al. (2018) calculated the financial exclusion index, and found through intermediary effect that financial exclusion not only inhibited the growth of China's agricultural economy, but also indirectly affected China's agricultural economy by restricting the investment in agricultural science and technology [4]. Xiong Jian et al. (2022) held that digital finance is more inclusive for farmers with lower financial literacy and income level from the perspective of digital finance, but there is also the risk of forming a digital divide of price exclusion, self-exclusion and tool exclusion [5].

2.1.2. Literature review at the regional level

By combing and summarizing the relevant literature at the regional level, the following conclusion can be obtained:

In the empirical study of financial exclusion, scholars mainly use two types of data. The first type of data is the financial exclusion index constructed by scholars according to the needs of research, and the second type of data is the panel data of provinces and cities. Among them, the selected indicators and measurement methods of constructing financial exclusion index have not been unified. Therefore, the conclusions are not consistent with the policy recommendations provided, but there are still some commonalities in the factors that can play a positive role in alleviating financial exclusion, that is, they mainly focus on government financial support, strengthening local financial infrastructure construction, strengthening regional

coordinated development and improving local residents' financial literacy. Therefore, according to the above common contents, the measures can be put forward as follows: First of all, the government should increase financial input and strengthen the construction of local financial infrastructure; secondly, it is necessary to strengthen regional coordinated development; thirdly, it is necessary to encourage financial knowledge education to improve the financial literacy of local residents.

2.2. County and township level

2.2.1. County and township perspective

Dong Xiaolin (2012) used quantile regression to analyze the influence of various factors on different quantile counties from the perspective of financial suppliers, and put forward targeted policy suggestions to reduce rural financial exclusion and improve the availability of financial services in rural areas[6]. He Zhixiong (2015) used the panel data of 147 counties and townships in 13 provinces and cities, and made an empirical study by using the heterogeneous bilateral stochastic frontier model. The results showed that the heterogeneous characteristics such as agricultural policy financial supply, social consumption level and non-performing loans of financial institutions deepened financial repression, and provided suggestions for establishing a multi-level and complementary rural financial system [7].

2.2.2. Literature review at county and township level

By combing and summarizing the relevant literature at the county and township levels, we can get:

Scholars in the county level of financial exclusion research based on the panel data of counties and townships, and the research objects are mainly concentrated in rural residents. They found that rural residents are deeply affected by financial exclusion, so it is urgent to alleviate financial exclusion in rural areas. Although the current policy recommendations given by scholars are innovative, they have not yet formed a unified. There are some innovative policy suggestions, for example: it is necessary to improve the county financial ecology [6].

In addition, combined with the previous relevant literature on the regional level, we can find that the commonness of policy suggestions on alleviating financial exclusion at the county and township levels and the regional level is as follows: First of all, the government should support the development of rural finance; secondly, we must narrow the gap between urban and rural areas and coordinate urban and rural construction; thirdly, we must reform and improve the financial service system; fourthly, we must guide new financial institutions to take root in rural areas; fifthly, we must guide financial institutions to open digital financial services and give full play to the unique advantages of digital finance.

2.3. Farmer level

2.3.1. Farmer perspective

Wang Xiuhua et al. (2013) used the sample data of farmers in many provinces, analyzed and processed the data through Probit model, and then considered the financial exclusion of farmers from two aspects: the dimension and degree of financial exclusion, and put forward suggestions at the institutional level, institutional level and publicity level[8]. Zhang Haodong and Yin Zhichao (2016) used the data of China Household Finance Survey (CHFS) in 2013, selected multiple measurement indicators and adopted the maximum

likelihood estimation method, and found that encouraging the development of financial education through multiple channels, combining financial knowledge education with practical skills training, and offering financial knowledge courses in schools are conducive to alleviating the financial exclusion of rural families [9]. Min Shijun (2020) used the survey data of 1849 farmers in Jiangsu Province, applied entropy weight method to construct an index system, empirically investigated the influencing factors of farmers' Internet financial exclusion, and put forward mitigation measures from multiple levels [10].

2.3.2. Literature review at the farmer level

By combing and summarizing the relevant literature at the farmer level, the following conclusion can be obtained:

First of all, when scholars study financial exclusion at the farmer level, most of the data are household survey data, which are represented by the data of China Household Finance Survey in 2011, 2013, 2015, 2017 and 2019 released by China Household Finance Survey and Research Center of Southwestern University of Finance and Economics. Secondly, the empirical methods applied by scholars have not been unified. For example, Wang Xiuhua et al. (2013) applied Probit model [8], Zhang Haodong et al. (2016) applied maximum likelihood estimation method[9], Min Shijun (2020) applied entropy weight method to construct financial exclusion index and Logit model to check empirical analysis. Finally, the commonness of policies put forward by scholars is as follows: first, innovate rural financial products to meet the financial needs of farmers; Second, improve the financial literacy of rural residents [10].

3. Commonality of Policy Recommendations

According to the previous literature review on regional level, county and township level and farmer level, the following commonalities of policy suggestions are summarized:

First of all, the government should increase financial input to support the development of rural finance. Agricultural economy is fragile, and agricultural economy is also the source of rural financial development. Therefore, ensuring the smooth operation of agricultural economy and the balance between supply and demand in agricultural market are the fundamental requirements of rural financial development, and also the inevitable need to alleviate financial exclusion. Therefore, the government should increase efforts to subsidize the agricultural economy and enhance the resilience of the agricultural economy. At the same time, it should comprehensively promote the modernization of agriculture and rural areas, improve the profit rate of agricultural products, enhance the anti-risk ability of rural families engaged in agricultural production, provide guarantee for rural financial development, and provide a realistic basis for alleviating rural financial exclusion.

Secondly, it is necessary to coordinate urban and rural financial development and promote the integration of urban and rural financial resources. In addition to the need for the government to continuously increase financial input, it is imperative to integrate urban and rural financial resources[3]. For example, the electronic trading system of the central bank's inter-bank payment can be used to build a payment and settlement network integrating urban and rural areas; Implement the integration project of banks and rural mutual

aid organizations. The above measures can effectively reduce the financial transaction barriers and friction costs between urban and rural areas, promote the flow of urban and rural financial resources, improve the use efficiency of financial resources, and then alleviate the rural financial exclusion problem.

Thirdly, it is necessary to strengthen the construction of rural financial infrastructure and attract new financial institutions to deploy in rural areas. Strengthening rural infrastructure construction and reducing the operating costs of financial institutions in rural areas are the key measures to achieve financial inclusiveness in rural areas. Taking Internet infrastructure as an example, according to the data of the 50th Statistical Report on Internet Network Development in China (2022), there is still a certain gap between the Internet penetration rate in rural areas and that in cities and towns, which leads to relatively high information acquisition costs in rural areas, and then leads to relatively high operating costs of financial institutions rooted in rural areas. Therefore, the motivation of financial institutions to lay out in rural areas is weak, which is not conducive to alleviating the problem of financial exclusion. Therefore, the government should further tilt financial funds to infrastructure construction, appropriately lower the threshold of market access, allow various forms of financial institutions to be laid out in rural areas, develop diversified and multi-level rural financial organizations, further expand rural financial scale, and alleviate financial exclusion.

Fourthly, it is necessary to improve the rural financial service system and innovate rural financial products according to local conditions. Rural areas should develop diversified and multi-level financial service institutions, such as micro-credit companies, rural mutual fund associations and other rural financial institutions, to form a diversified layout of rural financial institutions, and then promote the improvement and innovation of local financial system and financial service system. At the same time, we should combine the local financial development level and ecology, innovate rural financial products, and meet the financial needs of local farmers.

Fifthly, it is necessary to encourage rural financial knowledge education and improve the financial literacy of rural residents. Most farmers in China have a relatively low level of education, a relatively narrow vision, poor ability to accept new affairs, and some cognitive biases on some financial instruments, which restrict the solution of financial exclusion. Therefore, the low level of financial literacy of rural residents is an important factor in financial exclusion. Therefore, it is urgent to carry out financial knowledge education related activities in rural areas, so that rural residents can correctly understand a series of financial instruments and improve their financial literacy.

Sixthly, it is necessary to strengthen the construction of digital financial infrastructure and improve the coverage rate of digital financial services. Digital finance is a new financial sub-field. Scholars have found that it has many advantages, such as crossing geographical restrictions and low-cost acquisition. Therefore, digital finance has played a significant role in alleviating the knowledge exclusion, self-exclusion, tool exclusion and economic exclusion of rural residents [5], so it is very important to promote the development of digital finance business in rural areas. Digital financial infrastructure is the premise of digital financial development, and the main body of infrastructure construction is the government.

Therefore, the local government should play a leading role in digital financial infrastructure construction, improve local digital financial infrastructure construction, and at the same time, use national policy support to guide financial institutions rooted in rural areas to set up digital financial related businesses and provide digital financial services for local rural residents.

4. General Review of Literature

According to the research of scholars we can see that financial exclusion has many negative effects on rural development and many scholars have also applied various data research methods and proposed a variety of measures to alleviate financial exclusion but scholars for financial exclusion research is not systematic. First of all, the definition of the concept of financial exclusion is still unclear; secondly, scholars have not yet formed a unity in data selection; thirdly, when some scholars build their own financial exclusion index as the data base, the indicators and measurement methods they choose to build financial exclusion index are not uniform; fourthly, when scholars conduct empirical research on financial exclusion, the empirical research methods used have not yet been unified; finally, the policy recommendations for alleviating financial exclusion are still not uniform. However, there are still some common contents. First of all, there is data selection. The data sources at the regional level are mainly the financial exclusion index constructed by scholars themselves or the panel data of provinces and cities; the data sources at the county and township level are mainly the panel data of counties and townships; the data source at the farmer level is mainly the data of China Household Finance Survey (CHFS). Secondly, research methods. Scholars' research methods on financial exclusion are mainly empirical research and literature review. Thirdly, policy recommendations. The commonness of policy recommendations is as above.

Based on this, how to systematically study the problem of financial exclusion is a direction worthy of in-depth study by scholars. For example, in terms of data selection, we can refer to the Digital Inclusive Financing Index compiled by the Digital Finance Research Center of Peking University and the China Household Finance Survey data released by the China Household Finance Survey and Research Center of Southwestern University of Finance and Economics, select unified data indicators and construction methods, and build a unified digital financial exclusion index in China; in terms of research methods, empirical research is the main research method; In terms of policy recommendations, from the three levels of region, county and township and farmers, combined with the empirical research results and local reality, this paper puts forward three levels of suggestions.

Acknowledgment

We thank Jiao Wang and Pin Wang. This work was supported in part by a grant from Guangdong Climbing Program (Project Number PDJH2021B0576).

References

- [1] H. Kempson and C. Whyley, *Kept out or opted out Understanding and combating financial exclusion*. West Sussex: Biblios Publishers, 1999.
- [2] A. Leyshon and N. Thrift, "The restructuring of the U.K. financial services industry in the 1990s: a reversal of fortune," *J. Rural Stud.*, vol. 9, no. 3, pp. 223–241, Jul. 1993.

- [3] S. D. Xu and L. Tian, "A study of financial exclusion in rural areas of China," *J. Financ. Res.*, no. 7, pp. 195–206, Jul. 2008.
- [4] H. G. Huang, C. Q. Huang and X. Yi, "Financial exclusion, agricultural science and technology inputs and agricultural economic development," *J. Manag. World*, vol. 34, no. 9, pp. 67–78, Sep. 2018.
- [5] J. Xiong and J. Yang, "Rural financial exclusion in the context of digitalization: digital opportunity or digital divide," *J. Agrotech. Econ.*, pp. 1–12, Dec. 2022.
- [6] X. L. Dong and H. Xu, "An empirical analysis of the factors influencing rural financial exclusion in China--based on the perspective of the distribution of county financial institutions' network," *J. Financ. Res.*, no. 9, pp. 115–126, Sep. 2012.
- [7] Z. X. He and R. X. Qu, "Agricultural policy finance provision and rural financial disincentives - empirical evidence from 147 counties," *J. Financ. Res.*, no. 2, pp. 148–159, Feb. 2015.
- [8] X. H. Wang, Y. Fu, X. J. He, and K. T. Tan, "A study on the financial exclusion of Chinese farmers--based on data from 1547 farmers in 29 counties in 8 provinces in China," *J. Financ. Res.*, no. 7, pp. 139–152, Jul. 2013.
- [9] H. D. Zhang, and Z. C. Yin, "Financial literacy and financial exclusion of Chinese households - An empirical study based on CHFS data," *J. Financ. Res.*, no. 7, pp. 80–95, Jul. 2016.
- [10] S. Y. Min, "Study on the influencing factors of farmers' Internet financial rejection from the perspective of financial needs--based on the survey data of 1849 farmers in Jiangsu Province," *J. Audit Econ.*, vol. 35, no. 2, pp. 117–127, May 2020.