

# A Research on the Sustainable Development Path of Rural Inclusive Finance in Liangshan Yi Autonomous Prefecture

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**ABSTRACT.** The State Council issued the Plan for Promoting the Development of Inclusive Finance (2016-2020) in January 2016, which made a series of arrangements to accelerate the development of inclusive finance in China. However, inclusive finance can be hardly popularized in the poor rural population of Liangshan Yi Autonomous Prefecture. With the combination of the actual conditions, this paper will conduct an empirical analysis on the development of inclusive finance so as to put forward a sustainable development path for inclusive finance in Liangshan Yi Autonomous Prefecture.

**KEYWORDS:** Inclusive finance, Development path, Liangshan yi autonomous prefecture

## 1. Introduction

Inclusive finance has low degree of participation in Liangshan Yi Autonomous Prefecture, especially in areas of extreme poverty. As for demanders, the low education level of people in Liangshan Yi Autonomous Prefecture seriously restricts the demand for productive finance, which makes inclusive finance lack a sustainable development mechanism. As for suppliers, there are problems of financial institution exclusion and credit exclusion. In the wake of the blossom of Internet finance, the problem of financial institution exclusion will be resolved preferably. However, credit exclusion is severe in Liangshan Yi Autonomous Prefecture since poverty-stricken areas are absent from a favorable credit environment, superior insurance protection, preferable industrial supports and low financial operating costs, which largely constrains the performance of inclusive finance in poverty alleviation.

## 2. An Empirical Analysis of Rural Inclusive Finance Development in Liangshan Yi Autonomous Prefecture

Once the concept of inclusive finance was put forward, the effect of inclusive finance on upgrade of rural living standards has attracted intensive attention from academic circles. Furthermore, correlational studies have reached widely divergent conclusions. On the one hand, the progress of inclusive finance can provide farmers with more opportunities for transactions, savings and credit, improving the consumption of the poor and advancing the living standards of farmers. On the other hand, in villages of Liangshan Yi Autonomous Prefecture, restricted by the low income and insufficient wealth accumulation of the poor, most farmers may be incapable of bearing the cost of financial services even if universal financial services are provided in those poor areas, which gives rise to the gap between the rich and the poor in rural areas.

### 2.1 Determination of Indicators and Sources of Data

In order to conduct a quantitative analysis on the development status of inclusive finance in Liangshan Yi Autonomous Prefecture, this article draws lessons from the previous studies, constructs an evaluation system for inclusive finance in poverty-stricken areas of Liangshan Yi Autonomous Prefecture from permeability and usability of financial service, and measures the influence of inclusive finance on regional economic development by the virtue of utilizing the per capita disposable income of Liangshan Yi Autonomous Prefecture. Moreover, the data in this article are mainly compiled from the People's Bank of China in Liangshan Yi Autonomous Prefecture and Liangshan Statistical Yearbook of Liangshan Department of Statistics.

*Table 1 Relevant Variables And Their Meanings*

Index	Variable	Meaning of the Variable
fsa	Permeability of financial services	The number of employees in financial institutions per 10,000 people = the ratio of the number of employees in the financial industry to the gross population* 10,000
fsd	Availability of financial services	The ratio of the balance of farmers' loan: the ratio of the balance of farmers' loan to the balance of various loans
dev	Regional economic development	Per capita disposable income

## 2.2 Empirical Analysis

### (1) Stationarity Test of ADF

This paper employs time series data. In order to eliminate the spurious regression caused by the non-stationarity of the time series, this article introduces ADF test to check the stationarity of time series data of dev, fsa and fsd. The test structures are as follows:

Table 2 Results of Each Related Variable by Adf

Variable	Verification Formulae	ADF	prob	Stationarity
dev	(C,T,0)	-1.362286	0.7983	non-stationary
fsa	(C,T,0)	-1.001902	0.8845	non-stationary
fsd	(C,T,0)	-1.291913	0.8177	non-stationary
△dev	(C,T,0)	-5.397669	0.0154	stationary
△fsa	(N,N,0)	-1.618084	0.0968	stationary
△fsd	(N,N,0)	-2.340438	0.0267	stationary

Note: C and T in the test formula (C, T, K) indicate whether the test includes a constant term and a time trend respectively, N means not included, while K means the lag interval.

According to the results of ADF test in Table 2, time series data of dev, fsa and fsd are non-stationary, but their series become stationary after the first difference. Namely, they are all first-order single integer series, which conforms to conditions of Engle-Granger two-step procedure for co-integration.

### (2) Engle-Granger Two-step Procedure for Co-integration

Co-integration test is adopted to judge whether the linear combination of a set of non-stationary series is stationary or not. A least squares regression equation is firstly estimated, and then a stationarity test on the residuals is performed. According to the results of the co-integration test, the co-integration equation is achieved as follows:

$$\text{Dev} = 5546.19\text{fsa} - 59643.45\text{fsd} - 42896.7 \quad (1)$$

In order to clarify the causal relationship between the two, this paper adopts Granger Causal Relation Test. The test results are shown in Table 3.

Table 3 Results of Each Related Variable by Granger Causal Relation Test

Original Hypothesis	Lag Phase	P Value	Conclusion
FSD is not Granger Cause of FSA	2	0.48075	accept the original hypothesis
FSA is not Granger Cause of FSD	2	0.35719	accept the original hypothesis
dev is not Granger Cause of FSA	2	0.68820	accept the original hypothesis
FSA is not Granger Cause of dev	2	0.35128	accept the original hypothesis
dev is not Granger Cause of FSD	2	0.73644	accept the original hypothesis
FSD is not Granger Cause of dev	2	0.01974	reject the original hypothesis

Generally speaking, the smaller P value can increasingly verify the existence of Granger causality in the table. It can be seen from the probability values in the table that there is a one-way causal relationship between FSD and dev at the 5% of significance level. FSD is the cause of dev, while dev is not the cause of FSD, which illustrates that the availability of financial services in Liangshan is the cause for the promotion of economic development. In other words, due to the improved availability of financial services, the requirements of farmers who originally have financial needs have been met. Namely, farmers who are willing to make up for insufficient funds through financial channels will no longer be excluded. Therefore, they can smoothly obtain credit funds for poverty alleviation to carry out production and increase income. There is no causal relationship between FSA and dev, which shows that the permeability of financial

services in Liangshan has little effect on economic development. Furthermore, it can be attributed to the enlarged permeability of financial services is to expand the supply coverage of financial services. If insurance companies only upgrade the allocation of financial outlets and financial service personnel from the supply level and fail to take the effective needs of farmers into account, it is impossible to really mobilize the enthusiasm of rural farmers to participate in financial activities. The increased coverage in the long-term may result in the monopoly in the rural financial market, reduced market efficiency and improper use of credit funds. Therefore, it is impossible to effectively solve the problem of capital shortage in rural areas from a long-term perspective.

### **3. The Sustainable Development Path of Inclusive Finance in Liangshan Yi Autonomous Prefecture**

#### ***3.1 The Establishment of a New Concept about Inclusive Finance***

The empirical results indicate that rural poor households preserve a conservative attitude towards the evolution of inclusive finance. Even if external exclusion is eliminated, farmers' self-exclusion still exists. Since many farmers are short of knowledge on inclusive finance, the establishment of a new concept about inclusive finance occupies a foremost position. Government departments, relevant supervision departments and financial institutions should vigorously and intensively publicize the concept of inclusive finance, widely take advantage of channels into rural areas, including books, magazines, digital media and financial knowledge, effectively popularize inclusive finance in multi-level, wide-angle and long-term related information, enable people to have a deeper understanding of inclusive finance, and let them realize that inclusive finance is a true, reliable and favorable policy to help them get rid of poverty. Only in this way can everyone have the right to obtain financial services.

#### ***3.2 The Exertion of the Government's Macro-Economic Control***

The government plays a critical role in achieving the goal of inclusive finance. Firstly, in terms of systems, the government should issue relevant policies. Secondly, in terms of finance, the government should strengthen the support for financial institutions, provide assistance in finance, system and technology to financial institutions, encourage financial institutions to enhance their support to the people's livelihood, promote local financial institutions to provide credit to small and micro enterprises, farmers and urban low-income groups, and enlarge the scope of inclusive finance to poor areas. Lastly, in terms of technology, the government should introduce new machineries and technology for planting and harvesting to accelerate large-scale and systematic production.

#### ***3.3 The Innovation of Financial Products and Services***

The first is to further increase product innovation, combine local actual conditions, keep up with the market, strengthen innovation in products, services and channels, and enrich financial service products. For example, there are "farmers + family tree", "farmers + family tree + cadres", "farmers + family tree + first secretary + joint township units" and other loan guarantee methods. In the current stage of poverty alleviation, the government should increase credits for agriculture-related industries in poverty-stricken counties, especially for featured agriculture, tourism, ethnic culture and other industries with distinctive local features and advantages. The second is to enrich the service methods, combine the actual conditions in the poverty-stricken areas of Liangshan Yi Autonomous Prefecture, and carry out e-commerce targeted poverty alleviation. The third is to enlarge financial services for people in poverty-stricken areas and special financial consumers and increase financial support for operating organizations, including new rural business entities and poverty alleviation bases for the disabled in rural areas.

#### ***3.4 The Improvement of Credit System Construction***

The credit deficiency of economic entities in poverty-stricken areas of Liangshan Yi Autonomous Prefecture results in the reluctance of financial institutions to get involved in the rural financial market. Therefore, the construction of a credit system must be promoted in our poverty-stricken areas. Generally speaking, the government should speed up the construction of a credit reference system, establish a credit system covering farmers and enterprises in all regions, collect relevant credit information of rural households and enterprises in accordance with the law, and fundamentally ensure the availability of credit information of farmers and enterprises. On the basis of collecting credit information, the government should build up a basic database of credit information for various regions of Liangshan Yi Autonomous Prefecture and establish multi-level credit files for farmers and enterprises. Sequentially, government departments should severely crack down on financial debt of malicious evasion according to law and optimize the financial ecological environment.

### **3.5 The Perfection of the Social Insurance System**

Insurance penetration and insurance density are two factors to measure the usability of inclusive finance. The in-depth development of social insurance is the result of the joint action of many parties. In the first place, the government should establish and perfect the basic insurance system and upgrade the basic insurance system. Furthermore, the perfection of the basic insurance system can guarantee residents' minimum living demands. Especially, the improvement of medical insurance can transfer the condition that illness would result in poverty in the past. In the second place, the government should vigorously boost the agricultural insurance system in Liangshan Yi Autonomous Prefecture and encourage farmers to buy insurance for their crops. Therefore, if the crops in the field suffer losses due to natural disasters, and the agricultural products encounter poor sales, farmers who have purchased insurance can claim compensation from insurance companies.

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