普惠金融国家发展战略

中国普惠金融发展报告(2016)

（摘要）

THE REPORT OF FINANCIAL INCLUSION DEVELOPMENT IN CHINA(2016)

（Abstract）

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at Renmin University of China

RELEASE ON

THE INTERNATIONAL FORUM OF CHINA FINANCIAL INCLUSION

August 2016 BEIJING, CHINA

Thanks for Following Sponsorships

China Minsheng Banking
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(In the order of the initial letter of last name)

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Preface

We first officially released Report of Financial Inclusion Development in China in September 2015 with the theme of “good finance and good society”, which induced positive social responses. China’s inclusive financial cause has made definite phased achievements since last year mainly in three aspects according to my observation: first, the concept of inclusive finance is widely spread and popularized. Either financial professionals, government officials, or academic researchers are all increasingly paying close attention to inclusive finance. The positive impact of inclusive finance on the economy and its positive effect on the society are increasingly acknowledged by the public. We can hear about inclusive finance related topics from media reports to lots of conferences and forums; second, inclusive finance is fully practiced especially in the areas such as online payment, mobile payment, consumer finance and online lending etc.. We observed that the business model on the basis of sustainability is now demonstrating the commercial and social performance of the inclusive finance; third, our government issued the five-year plan of promoting the development of inclusive finance in January this year, which acts as the sign for the development strategy of inclusive finance to gradually carry forward. The government highly acknowledged the great significance of the inclusive finance in improving the financial structure, promoting economic development and even optimizing the social structure. Furthermore, the plan further confirmed the basic “government-guided, market-led” principle.

No doubt, from the experience of various countries in the world, we have to admit that inclusive finance is an “easier said than done” cause. It is difficult, but where are the actually the difficulties? In the now fashionable language, where is the “pain spot”? Throughout the history of the inclusive finance development, we could see that the concept of inclusive finance came into being because of market failure. The inclusive finance pioneers firstly implemented their operations in the form of non-governmental non-profit organizations. There is a growing consensus through long-term practice that the sustainable development of inclusive finance relies on the realization of the double goals, commercial and social performance. Certainly, this idealism practice has been lasting for several decades. Although it has made remarkable achievements, after all it only satisfied about a quarter of the demand given the background that it is estimated that there are 600 million poor households demanding for the services globally. Moreover, the worldwide financial exclusion remains a major issue for the knowledgeable people to worry about. Although China's inclusive finance industry lagged behind in comparison with those in other developing countries, it grows rapidly as a rising star. A possible irreparable regret for the inclusive finance in China is that it only experienced very limited non-governmental non-profit activities through its evolution process. The vast majority of small loan and P2P companies are about to ferociously achieve their profit goals from their birth, therefore leading to the double mandates plight in China. The foreseeable ending could be that those engaging in finance and self-claimed to be grassroots but classified as regular non-financial industries start with barbaric growth and end with running their courses.

It is encouraging that the inclusive finance has taken the pace of digitization driven by the digital technology. This trend undoubtedly reminds people to think about this historic opportunity to achieve the double mandates of commercial and social performance. Using its low cost, high speed and wide coverage advantages, within a few years the digital financial inclusion has already achieved what the traditional inclusive finance couldn't even in several decades. The wave of inclusive finance digitization is oncoming, shall we underestimate its trend and impacts? However, as every innovation is accompanied by new risks, digital financial inclusion also has "pain spot" in its development process which is to strike the balance between innovation and risk. The chaotic phenomena in the operation process of internet finance in China are really thought-provoking. The deep analysis shows that numerous risk are actually from the lack of inclusive financial infrastructure. All vehicles run at a speed of more than 100 miles per hour in the absence of a highway, causing no accidents with very low probabilities.

In the ecological environment without sound indicator system, credit system, payment system, regulatory system or legal system, the selection path for the inclusive finance could only be cautious, like walking on thin ice. So from this sense, the construction of inclusive finance infrastructure should be most urgent and with top priority, it also is where the government should be focused to promote this cause. Like the Chinese people are very familiar with the wisdom of "to make a fortune, first build a road", the success of undertaking the inclusive finance cause relies largely on the state of the inclusive financial infrastructure.

Taking into exactly the discussions above, we set the theme of the development report this year as "the national development strategy of financial inclusion" . The whole reported is divided into five parts. We discussed the significance and strategic goals of designing national development strategy of financial inclusion from the general global background, and further proposed the roadmap for the strategy implementation with the consideration of China's current situation in Part I. In Part II, we particularly demonstrated intensively the role the government should play during this process. Besides discussing how the government plays its guiding role in general, we specifically discussed the role of the local government in the development process of inclusive finance especially using the rural financial comprehensive reform case in Tiandong County of the Guangxi Zhuang Autonomous Region. Our discussion of the inclusive financial infrastructure covered a wide range of topics. We only discussed intensively on the construction of inclusive finance indicator system for we already discussed the issue of credit in the last development report, and this is Part III. Normally the financial inclusion institution system is a major component of infrastructure, we did not conduct a full and complete description and analysis. Instead we only introduced and analyzed the innovative development of institutions in the inclusive finance development process in Part IV, especially introduced and discussed some typical cases. We also introduced and analyzed the advanced topics such as the supply chain finance in rural areas especially some exploring practices of e-commerce finance. Part V is about how to conduct empirical analysis on the social impact assessment of the inclusive finance. Similar to what we did last year, we still focused on the collection and discussion of inclusive finance practice cases, and we have nine cases for this year. We believe that this persistent accumulation of cases will surely be valuable both for the current learning and communication and for summary and revelation in the future.

We got very valuable guidance from Professor Jun Wang for this year's development report from the outset stage of proposal, we would like to express our most sincere appreciation to him here! It is gratifying to see that our annual green book project was also greatly sponsored by CreditEase and Visa International this year, in addition to the consistent funding from China Minsheng Bank. We would like to express our heartfelt thanks

to all of them! Our development report is a result of collaborative efforts. Our team has expanded further. We achieved the outcome of a new level with the coordination of both Professor Yan Li and Dr. Xiugen Mo. Team members are not named here one by one. Let's celebrate and encourage together!

Duoguang Bei

August 13，2016

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Section I

National Strategy for Financial Inclusion Development

Chapter 1 Background and Significance of Developing The Strategy

1.1 Global Consensus on Financial Inclusion Development

Every country and financial institution are constantly aware of the importance of inclusive finance: inclusive finance could enhance the people's rights and improve their lives-especially for the poor; it could improve the stability and integrity of the national and global financial system; it could boost the healthy and inclusive economic growth for both developing countries and countries in the emerging market. Across the world, it has already become a trend to develop the inclusive finance development strategy from the national level, to better develop the inclusive finance and further to achieve the goals of economic development and social improvements.

1.2 Inclusive Growth and Financial Inclusion

There is a profound internal link between inclusive growth and financial inclusion. Inclusive growth advances equitable opportunities for economic participants, especially "marginalized groups" with benefits incurred by every section of society, injecting new impetus into economic development. Correspondingly, financial inclusion emphasizes on getting all groups especially those financially rejected involved into the financial system, so that every section of society could get their appropriate financial service needed to promote economic development and social improvement. Actually, financial inclusion could be included within the scope of inclusive growth, and it is a specific measure of inclusive growth in the economic and financial field from the perspective of both their claims and solutions. Therefore, developing inclusive finance is the special measure and important driving force the achieve the inclusive growth; and the inclusive growth provides a sound economic and social environment for the development of inclusive finance-these two concepts link to each other through "inclusion" and tightly link together.

1.3 The Current Situation of Financial Inclusion in China

The development of inclusive finance in China could be summarized as "rapidly and broadly" with the following characteristics: first, China has already formed a relatively complete multi-level financial system, laying the sound foundation for developing inclusive finance; second, the financial infrastructure continues to improve, contributing to the leading role of the market, through the strong support and the guidance from the government; third, the development of digital technology has become the engine for the growth of inclusive finance. Digital inclusive finance plays its unique role in addressing the "last mile" problem.

Certainly, the national development of inclusive finance is also facing a variety of challenges: first, the structure of financial products and services is still imbalanced, the financial availability needs to be improved; second, the financial infrastructure in China is still relatively weak, becoming an important obstacle to the further developing the inclusive finance; last, our society as a whole still lack the financial literacy and financial knowledge. The financial popularization and education needs to be strengthened.

1.4 The Significance of National Strategy for Financial Inclusion

The development of inclusive finance is a systematic project. The government should plot the overall situation and play its due role during the process: the government needs to release various development measures for the inclusive finance consistent with our national circumstances and make those measures coordinate with each other; to comprehensively utilize various resources and coordinate the interests of different parties; to mobilize various domestic departments and agencies to implement the development measures of inclusive finance; and to give feedback and make corrections based on the effects of relevant measures. Therefore, the government needs to have a specific and unified inclusive finance development strategy.

Chinese government promulgated "Promoting Financial Inclusion Development Plan (2016—2020)" (abbreviated to "the Plan") in January, 2016. The Plan is our national inclusive finance development strategy, which specifies the strategic direction and goals of inclusive finance, clarifies the fundamental conditions, problems encountered, and solutions made, contributing to building social consensus and coordinating different interests and relationships. Therefore, the Plan promotes the stable and healthy development of inclusive finance in China.

Chapter 2 Strategic Goals

2.1 Improve Financial Availability and Solve the "Last Mile" Problem

Financial availability evaluates whether financial consumers (including groups originally excluded from the financial system) can get the right financial services at a reasonable cost. Improving the financial availability is to solve the problem of "financial exclusion". Financial exclusion refers to the phenomenon that some social groups do not have the access to financial services provided by the traditional financial system, or they do not receive adequate financial services, due to various unfavorable factors. Financial exclusion is not conductive to raising the social production level, to achieving social justice, nor to the overall economic and financial development.

The most urgent task to improve the financial availability is to solve the "last mile" problem between financial products and services and the financial consumers, to make the inclusive finance truly benefit various social groups. Therefore, on one hand, considering the actual situation for different local districts when developing targeted specific measures. On the other hand, actively encouraging various subjects to play their major roles, comprehensively starting from those three dimensions i. e. consumers, providers and financial infrastructure.

2.2 Correctly Understand the Relationship between Inclusive Finance and Poverty Alleviation

The debate about inclusive finance and poverty alleviation exists throughout the development process of inclusive finance. We can summarize those debates into the following two arguments: 1) whether financial inclusion should set poverty alleviation as its goals and 2) whether financial inclusion really has effect on poverty alleviation.

The important goal and even the entire goal of the earliest inclusive finance practice is to alleviate poverty. But most of those early non-profit practices ended in failure due to lack of commercial and sustainability. With some of the inclusive finance practice started to stress the institutionalization and commercialization since the 1970s and 1980s in thelast century, the inclusive finance better achieved poverty alleviation due to the realization of operational sustainability. From the its practical course, inclusive finance should set its goal of poverty alleviation, but its only goal. Only through the institutionalization and commercialization could achieve the sustainable operation, and better promote the economic development and social improvement, resulting in better poverty alleviation. Poverty alleviation to alleviate poverty will not necessarily be successful. The poverty problem is a development issue in essence and inclusive finance should have diversified goals.

Many scholars used statistical methods to do lots of empirical research on the impact of the inclusive finance practice on the poverty alleviation, but ended with different results. Indeed, the poverty alleviation is influenced by so many factors and the relevant experiments also face with various problems both in theory and in the experimental design. It should be recognized that we should consider not only the direct impact of inclusive finance, but also the overall situation the economic and social development to examine the role of inclusive finance. Only by allowing the various social groups to enjoy various equal financial rights and by achieving the economic and social improvements during the development could solve those various economic and social problems including poverty alleviation.

2.3 Strengthen the Capacity Building for the Poor

The traditional poverty alleviation measures are often not complete and exhaustive: they only stress the external factors, but not fully consider the internal factors; only stress on improving the natural and social conditions, but not fully consider changing the poor groups themselves; only stress the "blood transfusion", but not fully consider the "blood making". Therefore, to solve the poverty problem needs to go beyond the traditional "poverty alleviation" mentality-to strengthen the "capacity building" for the poor, comprehensively changing the life, production and idea of the poor to compensate for the weakness of the traditional poverty alleviation measures. The inclusive finance plays an important role in this "capacity building" process.

The inclusive finance is not to give people fish, but to teach them to fish. The inclusive finance can promote the poor to accumulate their own assets, operate their own business, leading to increased production capacity; help the poor smooth their consumption and manage their risk, resulting in improved life skills; and popularize financial knowledge, instill financial ideas, improve financial literacy of clients, bringing about improved financial capacity for the poor.

2.4 Promote Financial Inclusion Digitization

Inclusive finance digitization refers to the inclusive finance provided digitally. It is an important evolution of the inclusive finance theory and practice and plays a unique role in improving financial availability. It could broaden the wider coverage of financial services, reduce the costs and price of financial services, improve the business sustainability of inclusive financial services through the digital innovation, so that more people can receive financial services.

Financial inclusion digitization has the following categories of manifestation: the "basic" or "simplified" mobile trading accounts provided by banks; the digital trading platforms relying on the bank settlement system built by mobile network operators or other non-banking institutions; and other financial services related to the realization of the above two categories, such as insurance, debit and credit, and even securities.

2.5 Promote the Development of SMEs and Encourage Entrepreneurship and Innovation

Under the general background of economic restructuring and development model transformation, the development of national inclusive finance should not neglect providing financial services for SMEs when taking into account of actual problems such as "hard financing". The operation philosophy, ideas and measures of inclusive finance are more targeted. It includes more consideration of the actual situation of SMEs and provides appropriate financial products and services for them. Therefore, inclusive finance plays an important role in such areas as improving the financial availability for SMEs and promoting the development of SMEs.

SMEs have flexible mechanism and are often the most active innovators. They have very high enthusiasm in the new technology application, new product attempt, new market development, new industry entrance and new ideas implementation. Therefore, the development of inclusive finance plays an important role in promoting SMEs development and elevating the social innovation ability-as a hub, SMEs connect inclusive finance with entrepreneurship and innovation. Therefore, to promote entrepreneurship and innovation is to encourage SMEs, to encourage SMEs is to develop inclusive finance.

Chapter 3 Interpretation of the Plan

3.1 The Overall Architecture and Idea of the Plan

The State Council issued "Promoting Inclusive Financial Development Plan (2016—2020)" (hereinafter referred to as "the Plan") on January 15, 2016. It is the programmatic document to guide government departments and all sectors of society for the development of inclusive finance, indicating that inclusive finance has already been integrated into the national level of overall economic and social development strategies.

"The Plan" is a systematic organic body and its idea is to comprehensively develop inclusive finance in the overall balance, and comprehensively consider the relevant inclusive finance issues with a global perspective. For example, how to deal with the relationship between the government and the market; how to unify stressing the priority with benefiting everyone; how to balance the commercial with the public welfare; how to deal with risk and innovation; how to strengthen regulation and stimulate the market dynamics at the same time; how to achieve the cooperation among inclusive financial services providers of different levels, different properties, different business and different service objects; how to ensure the quality of financial services and effectively protect the consumers with the rapid development; how to promote the synchronization and coordination between the development of financial infrastructure and financial business; how to deal with the different development needs from different regions of economic, financial and social development; how to learn from the international experience and reflect our own characteristics at the same time; how to find the balance between challenging goals and feasible specific measures et. Considering all aspects, motivating positive factors as much as possible, and coordinating as well as possible all kinds of contradictions is the idea runs all through the Plan.

3.2 Specific Interpretation of the Plan

3.2.1 The Scope and Service Objects of Inclusive Finance

Inclusive finance should be a comprehensive range of financial services, able to satisfy the reasonable financial demand from different people at different levels. The Plan points out that "financial inclusion refers to provide appropriate and effective financial services to various social strata and communities in need at an affordable cost, based on the principle of opportunity equality and business sustainability." In addition, providing comprehensive financial services and satisfying financial demands from various groups are both integrated all through the fundamental principles, overall goals and specific measures of the Plan. Therefore, the definition of the scope and service objects of inclusive finance in the Plan is in line with the development trend of inclusive finance.

3.2.2 The Development Model and Purpose of Inclusive Finance

The development model and purpose of inclusive finance determines how to develop inclusive finance, and it also determines the specific measures for the inclusive finance development. The international mainstream view is that: inclusive finance should find the balance between commercial and non-profit in its development model; it should focus on effectively satisfying financial needs from various groups to promote the balanced economic, financial and social development in order to achieve a series of goals including poverty alleviation on its purpose.

The Plan points out that inclusive finance should be based on the principle of "business sustainability", and should "ensure that financial inclusion services develops sustainably", "respect for the market discipline so that the market plays a decisive role in the allocation of financial resources", "to achieve the organic unity of both social and economic benefits." The Plan also specifies that the overall goal of inclusive finance is to build a system of inclusive finance and security adaptive to completely building a moderately prosperous society, to expand the financial services coverage, the financial availability and service satisfaction. From all these perspectives, we can see that the Plan does not limit inclusive finance to poverty alleviation, instead it examines the role of inclusive finance from a broader structure to define the development model and purpose of inclusive finance from the height of the economic and social comprehensive development and for the improvement of people's living standards.

3.2.3 Start from National Conditions and Learning from International Experiences

The Plan takes full account of our actual national situation of financial institution system, the structure of financial products, financial infrastructure, the system of laws, regulations and policies, the administration and management system. Therefore, the Plan is very targeted from the definition of inclusive finance, the goals and concrete measures of inclusive finance development.

At the same time, the Plan uses the international experience of inclusive financial development and is consistent with the international mainstream in the category of inclusive finance and service objects, development model and purposes etc. Furthermore, the Plan also stresses the construction of all areas of financial market, encourages the application of new technology techniques and new models, focuses on the implementation and feedback, advocates the enforce of international communications etc.

3.2.4 Stress Financial System Construction, System Improvement and Infrastructure Construction

The multi-level, diversified financial system could meet the financial needs of people at different levels and play its role of effective resources allocation; sound and appropriate financial system could regulate the behavior of financial subjects to guard against risks and improve financial efficiency, promoting the healthy development of inclusive finance; sound financial infrastructure could solve the "last mile" problem and increase the financial services availability and coverage.

The Plan proposes detailed measures in those areas. In the aspect of financial system construction, the Plan plans the development of banking, insurance and new financial institutions in details, and meanwhile encourages financial products and services innovation, and the application of new technology, to build the inclusive financial system from two dimensions of institutions and products. In the aspect of financial system improvement, the Plan stresses to improve the legal system of inclusive finance from three dimensions including service providers, service objects and development environment. In the aspect of financial infrastructure construction, the Plan proposes that "improve the development environment of inclusive finance, and promote the balanced allocation of financial resources", and also proposes measures to strengthen the "soft and hardware" in financial infrastructure.

3.2.5 Encourage Innovation

From the narrow aspect of technological innovation, the Plan proposes that "actively guide various inclusive finance services providers to reduce financial transaction costs, extend service breadth, deepen the depth of financial services, through modern information technology methods such as the internet.

From the broad aspect of comprehensive innovation, the innovation should permeate all aspects of inclusive finance such as theoretical research, development model, institutional system, products and services, business model, evaluation system and international cooperation etc. The concept of inclusive finance itself is an innovative product. Overall, the Plan not only encourages innovation, its specific contents also are full of innovation highlights, including new ideas, new methods and new initiatives.

3.3 Contents to Further Strengthen and to Improve

3.3.1 Strengthen the Measurability of Financial Inclusion Development Goals

The development goals of inclusive finance should be measurable and suitable for real time assessment, responsibility identification, revision and correction. The constituted development goals of financial inclusion in the Plan are mostly qualitative, relatively difficult to measure the targeted completion progress, also affecting the subsequent feedback and revision. Therefore the Plan needs to be improved.

3.3.2 Build the Financial Inclusion Data System

The Plan stressed "establish a sound financial credit information system of financial inclusion", "build a financial statistics system of financial inclusion", "design and form a statistical indicators system covering financial inclusion availability, usage, quality of service", "carry out special investigation and statistics of financial inclusion", "accelerate the establishment of monitoring and evaluation system", etc.. Possible unification of all those aspects above into a universal and comprehensive "national financial inclusion data system" will contribute to the further development of financial inclusion.

3.3.3 Design the Implementing Roadmap and Specify the Guidance Responsibility of the Government

The Plan clearly put forward the "government-led, market-oriented" principle. Stressing this principle, in fact, is a challenge to the traditional practice. How to realize the "government-led"? Fist we need to recognize what the guidance (lead) is; second we should specify how to guild (or lead) . With the premise that we already recognize the characteristics for various stages of the development of inclusive finance, a detailed operation roadmap could identify the development path and the government's work focus, to further clarity and elaborate the "who will and how to implement" problem. Therefore, the formulation of the roadmap for implementing the inclusive finance development strategy is very necessary.

Chapter 4 Implementation of the Strategy

4.1 Basic Principle: Government-led, Market-oriented

We should adhere to the fundamental principle of "government-led, market-oriented" when we develop and implement the inclusive finance development strategy. On the one hand, inclusive finance needs the guidance from the government, reflected in overall planning, balanced layout, organization and coordination, policy support etc. While from the much broader perspective, it is necessary for the government to integrate inclusive finance in its own intensions, to make inclusive finance the propeller for the economic development and social improvement. On the other hand, the market plays a leading role in inclusive finance. The development process of inclusive finance is a process of marketization; not to mention that inclusive finance has such properties as widely influential, numerous relevant stakeholders. Only the market has such a mechanism to mobilize various economic entities to participate into inclusive finance.

Adhering to the basic "government-led, market-oriented" principle is to correctly understand the relationship between government and the market and know well their separate "scope" . Due to the market failure, the government should guide, but never exceed its own duties.

4.2 Where the Government Works: Inclusive Financial Infrastructure

4.2.1 Indicator System

Implementing the financial inclusion Indicator system is important. First of all, its provides data sources for the qualitative analysis of the development status, sets reference for designing the overall targeted strategy and specific measures. Next, it makes goals "measurable" helps easy monitoring of the achievements. Again, it contributes to real-time monitoring and evaluating the strategy implementation progress and results, revising and improving strategic measures. Last, it helps summarize the development experience of financial inclusion for every region to conduct cross-section comparisons for international or regional development. In summary financial inclusion Indicator system runs through the financial inclusion development strategy and it is the important infrastructure for financial inclusion. We should consider the reality of our country to establish the inclusive financial indicators system with our Chinese characteristics.

4.2.2 Credit System

Information asymmetry hinders the development of inclusive. With the existence of information asymmetry, some inclusive financial service objects either cannot get the appropriate financial services or are "over-indebted", resulting in the deterioration of the overall quality of the suppliers' financial asset portfolio, and operating expenses increases. Information asymmetry will also increase the difficulty of monitoring, the systematic and non-systematic financial risks. Therefore, how to integrate the existing credit resources to build a "inclusive financial credit system" covering the whole society and especially the poor and SMEs is a problem worthy of exploring.

4.2.3 Payment System

The payment and settlement system is the very financial infrastructure with the most financial inclusion properties. The system can reduce overall transaction costs, improve trading efficiency and transaction security. Developing the inclusive finance payment system and improving the utilization of the system should start from two aspects: first, to further improve and promote traditional, bank-based payment and settlement; second, to actively develop innovative payment methods and promote digital payment methods.

4.2.4 Institutional System

The development process of inclusive finance is a process of the construction of multi-level institutional system. The property of "inclusion" requires that various inclusive financial services providers use their comparative advantages, select their appropriate operation scope and targeted groups according to their own characteristics. Institutional system is the carrier of financial services. Promoting the establishment of multi-level, diverse institutional system is an important measure for the development of inclusive finance and the improvement of financial infrastructure. It also should be noted that we should let "formal" financial services providers engage in inclusive finance.

4.2.5 Regulatory System

The rapid development of inclusive finance brought challenges for the traditional regulatory system. It is an important part in establishing the financial infrastructure "software" to incorporate inclusive finance into the financial regulatory system and to be targeted for effective regulation. For the specificity of inclusive finance, the regulation of inclusive finance should not be the same as those for the traditional financial institutions. The appropriate regulatory principle- i.e. well balance the risk and benefits- is the key to the implementation of inclusive finance regulation. Furthermore, the regulators should pay attention to consumer protection, and regulate the digital inclusive finance.

4.3 The Government Coordination Mechanism

It is an important operation level problem to coordinate the relationship among different government departments and between the government and the general public, to give full play to various government department in the development of inclusive finance in ensuring the smoothly implementation of the national inclusive finance development strategies.

In accordance with the international common practice, we should first determine the governing bodies for the development of inclusive finance, and then the deliberative institution and coordinating mechanism for issues of implementing and developing inclusive finance. We may consider establishing permanent inclusive finance deliberative institution and institutionalizing the inclusive finance procedure, and including market players and the general public representatives into the inclusive finance coordination mechanism, also establishing the leadership team at a higher level.

4.4 The Roadmap of Strategic Implementation

The inclusive finance strategy is not static, it should constantly evolve with the improvement of the level of domestic inclusive finance, so it is necessary to implement a progressive roadmap taking into account our national conditions. The development of inclusive finance can be divided into four stages, infrastructure construction, integration promotion, scope enhancement and high level services with reference to the International Finance Corporation (IFC) .

These four stages can be used as a roadmap for the progressive development of financial inclusion. This roadmap is simple and clear to help ensure the implementation of the goal-oriented financial inclusion development strategy. Currently, the development of financial inclusion in China has been between the stages of "infrastructure construction and integration promotion" . Therefore, the strategy should focus on the construction of financial infrastructure including both "software" and "hardware" .

4.5 Conclusion

The development of financial inclusion is a complete systematic project. It is necessary to implement the overall development strategy and to implement the various stages of the roadmap with priority considerations. It is important to properly deal with the relationship between the overall strategy and the roadmap to ensure the consistency and harmony.

Moreover, the implementation of the inclusive financial development strategy should consider the following:

First, we should give consideration to various social groups, extensively collect opinions from all sides; second, the priority of strategic goals and its relevant measures should be different; third, the strategic goals and operation roadmap should be challenging but not be separated from the actual condition both nationally and internationally; fourth, we should encourage innovation with the premise of risk control; fifth, we should emphasize the importance of assessing and amending the development strategy.

Section II

The Role of Government in Financial Inclusion Development

Chapter 5 Methods to Offset the Market Failure

5.1 The Role of Government in Financial Inclusion: Theory and International Practice

5.1.1 Eliminating Market Failure and Searching for Balance between Government and Market

Previous study suggests that the key role of government in regulating financial services is to deal with market failures caused by information asymmetry and extra high transaction costs. Market failures will affect the role of financial markets, impeding the expansion of financial services to certain groups. Government policy can overcome market failures to a certain extent. The role of government includes financial regulation, competition policy development and implementation, direct intervention and financial infrastructure construction promotion. Governments can adopt three policy tendencies: laissez-faire, radical and market promotion.

Previous study also found that when correcting market failures, the government may possibly bring such issues as low policy efficiency, enlarged market distortion and enhanced financial exclusion.

5.1.2 Dual Policy Mandates of Financial Stability and Financial Inclusion

The traditional goal of financial regulation is to secure financial institutions and stabilize the financial system. Recently many countries have begun to include financial inclusion as their regulatory objectives and contents. Financial inclusion plays an important role in poverty alleviation, balanced growth and economic stability.

Previous study found that financial inclusion development promotes financial stability. First, it increases the diversification of the bank asset portfolio, reducing the overall risk of loans of financial institutions. Second, low-income borrowers tend to keep their stable financial behavior to reduce the financial instability during the crisis. Third, good financial inclusion policies contribute to financial stability. Fourth, financial innovation aiming at inclusion can reduce costs and improve the effectiveness and stability of the service. Fifth, the financial inclusion development can alleviate income inequality and promote social, political, financial stability. Last, bank deposit inclusion can significantly improve the flexibility of banking funds in favor of financial stability.

On the contrary, some researchers also reported a negative association between financial inclusion and financial stability. First, when the financial institutions try to increase the number of borrowers, they will reduce the lending standards. Second, if the banks outsource various functions such as credit rating, their reputational risk will increase. Third, if small loan institutions are not effectively regulated, increases in the loan portfolio could weaken the effectiveness of economic regulation and increase financial systemic risk.

5.1.3 Developing and Implementing the National Strategy for Financial Inclusion

Tons of documents called on the government to develop national strategy for financial inclusion. The national financial inclusion strategy should include the assessment of national macro economy and the social and political environment, consistent with the national macroeconomic and development objectives, in coordination with other strategies (such as poverty alleviation strategy, etc.).

5.2 The Financial Inclusion Policy Framework: Internationalism Overview and Empirical Facts

5.2.1 Financial Inclusion Policy: Diversification Policy Picture and International Experience

Single financial product or technology innovation alone cannot achieve financial inclusion goals. Policy making should be personalized to promote the financial accessibility for the poor and the vulnerable group. The survey shows that financial inclusion policy aiming at low-income group, women, young people and rural residents improves accounts and payment and settlement systems.

Financial inclusion goals could be achieved through the establishment of sound legal and regulatory framework, improved competitive environment, strengthened credit system, strengthened consumer protection, enhanced financial literacy, etc. Improving the legal, regulatory and institutional environment contributes not only to the overall financial development, but also particularly to financial inclusion.

The Government should play an important role in the policy formulation and implementation for consumer protection, financial skills (or financial literacy, financial education) popularization, micro-financial regulation, savings promotion, financing availability for middle and small-sized enterprises, and rural financial promotion etc.

5.2.2 Rural Financial Inclusion Policy Framework: the Policy Basis and Components

The rural financial development promotion should start from the financial deepening. Rural financial deepening and development policies include the following several levels:

First, among rural financial deepening policies, a sound legal system and regulatory framework is a component of the necessary institutional infrastructure for an effective and stable operating rural financial market. Second, the development of financial infrastructure such as property registration, credit system and rating agencies etc. is essential to reduce transaction costs for market participants and to expand the coverage of rural financial market. Third, policies targeting at promoting the development of rural collective economy will help increase the demand for rural financial services on the one hand, and help increase the supply of rural financial services on the other hand. Fourth, financial institutions need to conduct savings and loan technological innovation for various rural subjects, to lower the costs and risks with the financial services and to improve type, quality, level etc. of the financial services. Fifth, the government needs to develop appropriate subsidy and incentive policy to guide and encourage financial institutions to use their resources and financial technological innovation achievements, to provide more services for rural areas. Sixth, the government needs to encourage the development of financial institution forms adapting to the rural financial environment, and the formation of organization, ownership structure and governance structure compatible with the economic and social environment in rural areas.

We can consider starting from the perspective of the policy impacts on the behavior of market participants for the rural financial deepening, which includes several steps such as demand expansion, risk reduction, expansion promotion of the supply and financial innovation promotion etc.. (See the report for details)

In summary, the development of rural financial inclusion should 1) establish a sound legal and regulatory framework; 2) promote competition; 3) facilitate the improvement of the financial infrastructure (credit system, payment system etc.); 4) promote consumer protection; and 5) improve financial literacy. (See the report for details)

5.3 A Brief Analysis on the Inspiration from China's Financial Inclusion Policy and Rural Financial Supply Reform

Lots of literature support that the government should play an important role in implementing financial inclusion, not hinder or replace the role of the market. Instead the government needs to properly define its functioning boundary and formulate appropriate policies to promote the development of financial infrastructure and the diversification of financial supply system, and to expand the financial supply capacity and scale. With the consideration of China's current situation, we recommend the following: 1) play the leading role of the market in the allocation of financial resources and financial inclusion; 2) develop and implement the financial inclusion strategy as soon as possible; 3) promote the development of financial inclusion, improve the rural financial service coverage and availability, and reform and improve the promotion policy for the rural financial supply-side development.

Chapter 6 Discussions on Financial Reform in Tiandong County of Guangxi

6.1 The Main Work of the Rural Financial Reform in Tiandong County

The financial reform in Tiandong was sponsored and promoted by the government, which also was directly involved in some of the reform activities. The government also encouraged the participation of financial and economic organizations through market operation. The government made the reform decision in 2008 and started the reform early next year. And the government had been continuously improving, deepening and enriching the reform contents since then. The government proposed an upgraded version of the reform in 2015. Currently Tiandong County already built six major rural financial systems although at early stage. We will describe and analyze the different roles of the government in these six systems from the perspective of government participation in this chapter.

6.2 The Active Conduct of the Government

6.2.1 Direct Participation

6.2.1.1 Policy Making

The financial reform in Tiandong was initiated with either the direct or indirect participation of the upper level government and many departments with reference to the status quo at that time. The reform was guided by various corresponding documents for the reform from the government departments at all levels. These documents saved space for the reform, and at the same time required and forced the government and relevant sectors to be compulsorily proactive in promoting the reform.

6.2.1.2 Founding, Introducing and Reorganizing Financial Institutions

With small number of financial institutions, monotonous service capabilities and contents, and no formed competition, Tiandong Government was directly involved in 1) introducing and formulating (North Bay) village and township bank, two rural funding unions, two micro-financial companies and twenty-nine funding cooperatives for poverty alleviation; 2) introducing Guangxi Finance and Investment Group, Guohai Securities Co., Ltd. and insurance company to open their business division in Tiandong County; 3) guiding the restructure of the Rural Credit Cooperatives into Rural Commercial Bank; 4) establishing the rural property rights trading center; and 5) establishing the state-owned Guotai Investment Company. This diversified the financial services in the county.

6.2.1.3 Optimizing the Financial Inclusion Development Environment

In order to create the development environment for the reform, the county government 1) arranged the government, banks and companies (or farmer households) to have multiparty forums many times, encouraging participation of the reform; 2) carried out the propaganda and popularization of financial literacy together with financial institutions to improve the financial knowledge of rural residents; 3) established financial consumer rights protection center to ensure convenient channels for complaints from the rural financial consumers and properly handling financial service disputes.

6.2.1.4 Constructing the Mutual Information System

The county government proposed the working idea of "government-led, People's Bank-driven, multi-stakeholders-involved, mutually benefited" in response to the "hard to borrow, even harder at the first borrowing" problem for the rural residents. The county government built a credit information system containing information of 72, 300 rural households of which 40844 households are rated from A to AAA for credit. Banks would grant credit lines from 10 to 100 thousands Yuan. Furthermore, a system of credit ratings for administrative villages was also created to provide opportunities and convenience for poor villages and poor households to get their credits.

6.2.1.5 Setting Special Incentive Policy

The county Financial Bureau invested eight million Yuan to set up the credit risk fund. The County Government also introduced policies providing interest subsidy for farmers using micro-credit loans and micro loans for poverty alleviation.

6.2.1.6 Perfecting the Property Rights Transaction

Relevant governmental departments have completed the property rights identification work for rural collective forest, rural collective land and contracted land. Furthermore, they established the first rural property rights trading center in Guangxi in 2012 i. e. Tiandong rural property rights trading center.

6.2.2 Authorization

The government actively cultivated a competitive environment and founded several financial service institutions and granted them rights to operate independently, in response to the unicity of the past rural financial service institutions. The government 1) granted microfinancial companies, rural self-help funding organizations rural funding cooperatives and other financial institutions the rights to carry out financial service business; 2) communicated and negotiated with the relevant upper financial authorities for more flexible and diversified financial products. For example, the Agricultural Bank of China (ABC) and its Guanxi Branch signed "the memorandum on the overall advancement of the ABC financial products, and the promotion of the development and cooperation for the urban and rural economy in Tiandong" . The memorandum contributed to the expansion of credit approval authority and opening up of the loan related issues approval "green channel. The Agricultural Bank of Tiandong County enjoys the same authority of delegation as its peer at upper level II, also it can directly report loan issues beyond its authority to the upper district branch bank for approval.

6.2.3 Incentives

The county government used financial subsidies, established special fiscal fund (agricultural loan risk compensation fund, working capital, investment, insurance premiums and other special funds), provided tax incentives and other promotions (refinancing and deposits reserves, interest rates, etc.) to encourage financial institutions to participate into the financial reform.

6.2.4 Regulation

The Finance Office, People's Bank and the Banking Office are the main county financial regulatory departments. 1) They carry out frequent financial performance analysis, monitoring and forecasting, and release various timely indicators and data reflecting economic and financial performances. Those financial regulatory departments attach particular importance to the supervision of county level investment and financing platform companies, guarantee agencies, microfinicial companies and credit unions. They strengthen the disposal of bad loans to avoid excessive lending and to guard against the outburst of financial risk. 2) They supervise the agriculture-related financial services with priority, increasing their monitoring (checking) of the support services for agriculture, "agriculture, rural areas and farmers" loan balances and increments. 3) They carry out financial inclusion assessment, summarizing and analyzing the financial inclusion development for every financial institution. They possess the financial inclusion related data and information in dimensions of distribution of township, village and region, and of the mass satisfaction for their financial demand. They also established the assessing mechanism, developed a work plan to motivate and supervise all regions, all financial institutions and relevant functioning departments to improve financial inclusion services based on the assessment results.

6.3 Independent Market Operation

The government stresses the role of market mechanism when initiating the reform process.

6.3.1 Financial Products and Services Innovation

Financial institutions have full autonomy in terms of innovation. For example, the rural commercial bank introduced and implemented the "Guishengtong" telebanking model on the government call of "serving the villages", through which local small shop agents directly serve the villagers. This model can both satisfy small customers in place and release professionals focusing on other financial services. This innovation reduces services costs with the consideration for the rural population cluster of the elderly and low-literacy situation, also in response to the "finance serves the villages" governmental requirements.

6.3.2 Risk Control

Although the government has adopted some measures to guard against financial risks from the macro perspective, financial institutions are specifically responsible for the risk control. Financial institutions need to build a sound risk management organization framework, strengthen the internal risk management and establish the loan loss accountability system and performance appraisal system, to prevent the operation and managing risks of the farmer loans.

6.3.3 Customer Credit

Financial institutions have ultimate decision-making rights to decide whether to adopt the government's data and the amount of authorization, based on the common credit system build by the county government.

6.3.4 Customer Selection

Some financial services customers put forward that financial institutions could determine which farmers can get the services.

6.4 The Effects of the Rural Financial Reform

6.4.1 Completing and Strengthening the Foundation for the Rural Financial Services

With the reform, Tiandong County has already established a financial organization and institution system containing commercial, policy-based, cooperative and new rural financial institutions, insurance, security companies, guarantee cooperation and rural property rights trading center etc..

6.4.2 The Significant Increases in the Total Amount of Agriculture-related Credit and Service Level

Agriculture-related loans increased from 1.537 billion Yuan in 2008 to 6.376 billion yuan at the end of 2015 with an annual increase of 22.54%, accounting for more than 70% of total loan balances (see Table 1). The increasingly rich financial service contents are in line with the increasing capacity of satisfying the demand for diversified financial services from various rural business entities. Farmer loan coverage and loan satisfaction rate have been increasing.

Table 1 Major financial indicators comparison before and after the reform in Tiandong County

Financial Indicators	2008	2015
Total deposit balances(yuan)	3,045,000,000	9,371,000,000
Total loan balances(yuan)	2,307,000,000	8.559
Agricultural loan balances(yuan)	1.537	6.472
Agricultural loan ratio	66.60%	75.60%
Coverage ratio for farmers' credit ranking	—	89%
Number of bank outlets(per thousand people)	9.9	11
Coverage ratio for farmers' loan	26%	90%
Realizing ratio for farmers loan	35%	92.80%
Average loan(yuan)	18,600	58,400
Non-performing loan ratio for rural financial institutions	2.36%	0.88%
Comprehensive agricultural insurance coverage	30%	73%
Financial literacy	0.20%	92%
Number of electronic machines	170	2208
Number of bank card issued	190,000	770,500
Number of branches accessing payment system	7	46

6.4.3 The Credit System Promotes the Optimization of Financial Ecological Environment

The credit system enables farmers, cooperatives, enterprises etc. to directly experience and realize that credit is a very useful intangible asset and credit guarantees can directly create value.

6.4.4 Financial Risk Decreases Significantly

The non-performing loan ratio (NPL) dropped from 2.36% in 2008 down to 0.50% at the end of 2015.

6.5 Discussion and Suggestions

6.5.1 Boundaries of the Government and the Market

The boundaries of the government and the market should be defined based on the development stage of the market. The government should play a greater role in the under-developing poor region, while leave the market to fully play its role in developed market regions.

6.5.2 The Active Role of Government

In most cases, the government should play a more active role in areas of overall planning, organization and coordination, institution building, policy incentives, environment optimization, infrastructure construction and regulatory monitoring etc.

6.5.3 Avoid Excessive Intervention

In the commercial level, the government should avoid excessive intervention and respect market rules.

6.5.4 Policy Recommendations

1) Stress the mechanism issues of the rural financial development system

2) The rural financial reform should be integrated into the comprehensive deepening rural reform and promoted as wholly planned.

3) Insist on the equal importance of both development promotion and risk prevention.

4) The government initiates in adherence to the market principles to form a multi-parties involved and collectively advanced pattern.

Case I Guishengtong-A Payment System for Rural Residents

Guishengtong is a payment system introduced by Rural Commercial Bank of Tiandong County in Guangxi Zhuang Autonomous Region. It provides payment services through agents whose bank accounts bound to the payment terminal that connects to the bank by telephone line. Residents nearby can slide their bank cards through terminal machine to get services such as cash withdrawal, transfer and payment. The system brings great convenience to rural residents and also increases the living standards of those under the poverty line. It is indeed a rural financial innovation.

First, the service terminals of Guishengtong are installed at all 162 administrative villages of Tiantong County. Second, all agents are trained with knowledge of how to operate the terminals and deliver financial services. Third, the terminals are visited and maintained by the bank staff regularly. Last, charges for the services are standardized and some services are free of charge so that local residents benefit more from the system.

The financial inclusion in rural Tiandong was greatly improved by the establishment of Guishengtong system. First, the system extends the payment services to all residents in rural Tiandong. Up to December 2015, there are 166 service terminals installed in all 162 administrative villages. The number of inquiry had cumulated to 21, 000; an amount of 10.55 million Yuan were withdrawn from the system in 25, 300 withdrawals; the amount of savings through the system is totaled to 5.8 million Yuan with 11, 000 deposits; the amount of transfer is 26.98 million Yuan and the amount of consumption expenditure is 19.88 million Yuan in 2015.

Second, "Guishengtong" brings greatly convenience to rural residents. Installation for this payment terminal system allows local residents access to financial services within their villages, cutting down sharply the cost and the time of getting financial services.

Last, the system improves greatly financial literacy in rural regions. The Guishengtong terminals also serve as training points of the Rural Commercial Bank. In 2015, the Bank launched a program of "taking the convenience of withdrawals and deposits, enjoying the benefit of rural credit", which trains local residents with the skill and knowledge of using financial services.

Guishengtong system faces a number of challenges and risks to be put under control. First, more efforts needed to promote the usage of the system. Second, the agency fee is not enough to incent their greater efforts to extend the service to all residents. Third, training on risk control and financial service for agents need to be strengthened.

Case II A Government-led Credit Information System of Tiandong County

Tiandong County is located at Baise City, Guangxi Zhuang Autonomous Region, with a population of 420, 000 and 79, 000 rural households. In the past eight years, led by the Government and through actively exploring, the County has successfully become the first case of "credit county" in China. Its brand of "being honest in Tiandong" penetrates into each resident behaviors, which creates a friendly environment that promotes social and economic development of the County.

The pilot program of rural financial reform in Tiandong County began in 2009 with support of the leadership from the Central Government. In order to solve the problem of difficult access to loans of rural residents, local Government and People's Bank of

China in Baise City issued jointly a policy document, entitled "Work Plan for Accelerating Construction of Rural Credit System in Tiandong County" in 2010, which lead to the official start of social credit system construction on June 30, 2010. Data of 72.3 thousand households were collected and stored in a computer system. With a standardized rating system, households are ranked from A to AAAA. All local banks are encouraged to share this household information system. According to the credit rate, banks awarded each household a credit from 10 thousand Yuan to 100 thousand Yuan. When households have demand for credit, they can borrow an amount not larger than awarded credit easily from a bank within a week.

The crucial point in the construction of credit system is to collect household information and to establish the rating system. County encountered Much difficulties in the initial period of farmer system construction. First, households did not realize the importance of the credit and not willing to cooperate with information collecting teams. Second, the huge amount information requires a great amount of works of input and rating. Finally, rating system need to be standardized. These difficulties were all overcome by the Government who were able to mobilize resources from different departments at the county, township and village levels to cooperate in the credit system construction.

Weakness of the credit system was also identified in following 3 years from usage such as lacking information of farmers cooperatives, more information of woman, migrate worker and identification of households in poverty. In 2012, the Government decided to improve the system. Then the improvement continues from 2013 to 2014. As results, information of 73, 000 households was updated and 55000 of them rated above A credit level. In addition, a system of credit village is introduced and 99 out of 162 villages are awarded credit villages.

Generally, several outcomes are found from this 8-year effort of rural credit system construction in Tiandong.

First, the computerized household information system facilitates the smooth development of credit rating, which allows Tiandong County to win the first place in constructing credit information with broad coverage in Guangxi.

Second, the credit information system improves greatly the financial environment inside the county. In comparison to 2009, the proportion of loans on credit was increased from 82% to 86% in 2014.

Third, the system enhances the opportunity for the poor villages to access bank services. By the end of 2015, all 53 poor villages were awarded the credit villages that means the poor households in these villages are all legitimate to borrow on credit.

The major experiences from this pilot reform can be summarized in two points: the government should play an important and active role; and the establishment of credit information system with broad coverage is crucial in promoting financial inclusion.

Case III Filing and Issuing Service Cards, Financial Services Targeting Poor Households

——Jingtai rural credit cooperatives extending its financial services

Located in central Gansu Province, Jingtai County is one of the poorest counties in Liupan Mountains, around which there are several other neighboring poor counties. It is a county that receives the "Three Xi Areas-specific" financial fund. Microfinance for poverty alleviation is a preferential financial product tailored for the poor households by the Jingtai Rural Credit Cooperatives (JRCCs), and support those poor rural households which have been filed and issued service cards. JRCCs attaches great importance to this work and treat it as an important means of the targeted poverty alleviation, and a new way to boost the development of rural distinctive industries and help the poor rural households out of poverty.

As of the end of May 2016, JRCCs has established the credit profiles for 40, 790 households across the entire county, with the credit profile coverage ratio at 81.28%; assessed the credit ratings for 38, 915 farmers with the rating coverage ratio at 77.55%, of which 9088 poor farmers were filed and issued service cards with the coverage ratio at 100%. JRCCs provided 1.512 billion RMB micro loans for farmers cumulatively, of which 4020 poor households received 201 million RMB, thus significantly promoting the county's development-oriented poverty alleviation efforts and the development of rural distinctive industries, and effectively helping the rural poor households out of poverty .

Jingtai county has mainly taken the following measures to effectively promote inclusive finance and implement the targeted financial poverty alleviation: Firstly, preferential credit policies. JRCCs tries to make full and good use of the farmer-supporting refinancing monetary policy tools. The county has won over a total of 633 million RMB farmer-supporting refinancing since 2015, broading its sources of funding. In the mean time, JRCCs has implemented the farmer-supporting refinancing preferential interest rate policies all-around, and the poor households which have been filed and issued service cards receiving loans at a preferential rate.

Secondly, optimization of services and standardization of loan. JRCCs makes the poor households enjoy convenient financial services by reducing the loan procedures, optimizing the loan environment, adopting preferential loan interest rates and other measures. Loans are lended in strict accordance with the roster of poor households which were filed and issued service cards. In addition, the loan threshold is not raised at will, the poor households are not asked to provide counter-guarantee, and no interest is to be deducted and collected in advance. And all forms of unreasonable charges are prohibited.

Thirdly, improvement of the payment system for poor villages. Building three major service platforms, namely scientific and technological network, settlement services and financing platform, and creating "green channel" of financial service; spreading the ATM service to the farmers, allocating more personnel, electronic equipment, payment and settlement tools to poor villages; spreading e-bank payment, mobile payment and other emerging electronic payment methods, and providing queries, transfers, withdrawals, self-service loan repayment and other basic financial services for the poor households holding service cards.

Fourthly, publicizing policies and financial knowledge to the farmers. JRCCs always treats the "intellectual poverty alleviation" as an important task. It has carried out the activities like "Delivering Financial Knowledge to the Countryside" and "Financial Seminars about Agriculture, Farmers and Rural Areas" . In total, more than 100 seminars have been held with18, 000 copies of various information brochures attributed and more than 7, 800 farmers participated in various forms of financial seminars.

Fifthly, docking the poverty alleviation industry accurately. JRCCs explores the "company+base+farmers" agricultural industry chain financial service mode and the distinctive planting and breeding industrial loans, encourages leading companies in agricultural industrialization or bases to sign the purchase order with farmers and provide loan guarantees for farmers' products, and develops the loan products for distinctive planting and breeding industry. Till the end of May 2016, JRCCs has made 1, 813 such loans with a total amount of 221.85 million RMB.

Case IV Exploration and Practice of the Pingnan County's Microfinance Promotion Association in Fujian Province

Pingnan County is located in the northeastern part of Fujian Province, under the jurisdiction of Ningde, governing 11 towns and 150 villages, with a total population of 190, 700 and 2, 203 rural households. It is a typical agricultural county in mountainous areas. In 2015, 2, 203 rural households were identified as the targeted poor households with a total of 7, 702 people. It is one of 23 key counties that is poverty alleviation targeted by Fujian Province. In October2007, the Pingnan County Microfinance Promotion Association ((PCMPF)) was founded. Throughout 10 years of exploration and practice, PCMPF has become an important channel for the local government to promote inclusive finance.

As a social organization for public interest, PCMPF mainly functions on:

1) Providing intermediary services.

Farmers could have their needs on small loans known through phone or text messages to PCMPF. After evaluating their credit and property conditions, PCMPF would recommend them to financial institutions.

2) Providing loan guarantee services.

PCMPF would integrate financial aids allocated by financial departments at all levels to set up a risk guarantee fund to provide guarantees to the farmers.

3) Setting Up credit profiles for the farmers.

PCMPF would build a general service information platform for rural area, agriculture and farmers, collect and integrate farmers' information to set up a credit profile for them.

Not only did PCMPFachieve its own sustainable development, it has also promoted the development of rural area's inclusive finance.

1) Setting Up credit profiles for farmers.

As of the end of 2015, it had collected and sorted out a total of 158, 217 records of household registration information, 6, 875 records of farmers' loan information, 56, 879 records of forest rights information, and 32, 168 records of cultivated land information.

2) A large increase in the coverage of farmers' loans.

Till the end of 2015, PCMPF had recommended up to 9, 336 small loans in aggregate with a total amount of 320 million RMB, and had offered 5, 627 loan guarantees with over 200 million RMB. Over 8, 000 rural households had benefited from PCMPF's efforts, of which 1, 043 rural households had got loan guarantees with the loan guarantee balance at 51.26 million RMB.

3) Achieving effective docking for financial institutions and farmers through referrals and loan guarantee services.

In 2015, PCMPF recommended and guaranteed 166 million RMB, 132 million RMB, 132 million RMB, 21 million RMB and 5.07 million RMB of loans supporting agriculture, respectively from Rural Credit Cooperatives, China Agricultural Bank, Postal Savings Bank, and rural banks.

4) Playing the role of blood-making for poverty allocation through credit by resolving loan guarantee issues.

In 2015, PCMPF recommended and provided loan guarantees for 9, 639, 800 million yuan of small loans to 809 rural households in file identified as the targeted poor households with the capacity for physical labor, accounting for 35% of poor rural households across the entire county.

5) Better financial ecology build-up.

Taking social credit into the credit profiles, effectively increasing farmers' repayment. To the end of 2015, PCMPF has named 6 credit towns and 78 credit rural villages, identified 9, 792 credit households. And loans recommended and guaranteed by PCMPF achieved 100% repayment.

The government has played an important role in the development of PCMPF:

1) Improving the infrastructure of inclusive finance.

Launching organizational innovations, and taking the leading role in cultivating intermediary institutions; integrating information from different government departments, realizing information sharing among sectors, government departments and financial institutions; speeding up the ownership registration work of forest rights, and promote anti-guarantees.

2) preferential policies.

The policies include: supporting financially, and setting up a compensation fund for risks; leveraging credit funds by re-loaning to support agriculture from People's Bank of China; coordinating people and providing assistance service; lowering the cost to benefit the farmers truely.

The exploration and practice of PCMPF demonstrates that the local government's guidance is very important in promoting inclusive finance, while the social organizations for public interest play an important role in facilitating the local government to do it. Finally, inclusive financial institutions need to create a sustainable business model with no dependence of subsidies.

Section III

Construction of the Indicator System for the Financial Inclusion

Chapter 7 Theory and Methods of Evaluating the Financial Inclusion Development

7.1 The Importance of Financial Inclusion Development Evaluation

It has already become an important issue in theory and in practice to comprehensively evaluate using appropriate evaluation methods concerning how to effectively measure the development level of the financial inclusion, building reasonable and effective evaluation indicator system for financial inclusion. First, we do not have a set of indicator system scientifically and fully reflecting the current development situation of financial inclusion in the theoretical sense. We can start with the introduction and analysis of both national and international financial inclusion indicator system to build our own financial inclusion indicator system, reflecting our national actual characteristics. At least it will be a reference to some degree. Second, as a developing country, the development of national financial system is not complete in practice. Some social vulnerable groups, disadvantaged areas are still excluded from getting the financial inclusion services. The construction of a scientific and effective financial inclusion indicator system will contribute to fully reflecting and evaluating the development condition of our national financial inclusion, to identifying obstacles facing the development of financial inclusion, to providing policy makers with convenient and complete financial inclusion information, in order to help develop the necessary and applicable policies to promote the development of financial inclusion.

7.2 The Current Situation of Financial Inclusion Indicator System

7.2.1 The Current Research Situation of the Financial Inclusion Indicator System Design

Currently, some institutions designated and published the index system to evaluate the financial inclusion development, mainly including the Global Partnership for Financial Inclusion (GPFI), World Bank, IMF, Alliance for Financial Inclusion (AFI) and MicroScope. Comparison of those systems may end up with the following characteristics: first, all those indicator systems are based on three dimensions i. e. financial service availability, usage and service quality, taking into account the breadth and depth; second, the indicator selection focus on adult-oriented demand based on both demand for and supply of financial services; third, the indicator data come from financial institutions and consumer surveys with the major data from financial institution. The main problems include: first, the indicator data is not sufficient; second, the indicator system cannot keep up with the development of financial inclusion, for the indicators focus mainly on the traditional financial services but less on the relevant digital finance. Currently the only indicator in the indexes is the number of electronic funds accounts.

7.2.2 The Current Development Situation of the Financial Inclusion

There are two major sources to acquire the data, one is data from the supply side i. e. the data mainly provided by each national regulatory authority and statistics department. It is easy to collect in most countries all over the world, and is more timely updated. But the supply-side data has some limitations. The main data obtained from the regulatory authorities are the data of regulated financial institutions, lacking the comprehensive data of non-formal financial service institutions.

The other data is from the demand side. The data is collected and processed in the form of questionnaires, acting as a good supplement to the supply-side data. However, the demand-side data is hard and costly to collect.

7.2.3 Some Thoughts on the Design of National Financial Inclusion Indicator System

The construction of the national financial inclusion needs to consider several factors: first, the database construction is the basis for the effective operation of the financial inclusion indicator system, which should be open to encourage the participation of each side and the active provision of the data; second, the design of the indicator system should consider the following conditions: 1) it must reflect all relevant aspects of financial inclusion; 2) it should make different areas comparable with each other; 3) the data should be readily available with feasible acquisition costs; 4) it should reflect unique financial inclusion characteristics for each different region and ways of realization; third, the setting of dimensions of the indicator system should comprehensively reflect the properties of rural, small and micro enterprises, and emerging industries etc.; four, data availability is an important consideration for the index selection.

Chapter 8 Construction of Financial Inclusion Indicator System

8.1 Aims and Principles

8.1.1 Aims

The construction of the financial inclusion indicator system aims at scientifically and objectively reflect the actual development condition of China's financial inclusion to set the decision-making basis for the formulation of financial inclusion policies.

8.1.2 Principles

We should follow the following principles when specifically identifying and selecting the evaluation indexes for the financial inclusion development: 1) comprehensiveness. This principle requires that various dimensions and indexes mutually cooperate together (but not a simple sum) to comprehensively, scientifically and accurately reflect the contents and features of financial inclusion; 2) appropriateness. The evaluation indicator system should have suitable size, moderate level and appropriate thickness; 3) comparability. Indicators should be comparable, their caliber, method, scope and temporal scale should be consistent; 4) operability. A key issue of setting the index is to consider whether these indicators could collect the authoritative and accurate public data; 5) sustainability. The design of financial inclusion indicator system should apply to transnational and cross-regional comparison of the same time, it should also apply to the time series financial inclusion comparison for the same country and regions within a relatively stable framework.

8.2 Design Ideas

The basic framework of financial inclusion indicator system should contain three dimensions of supply, demand and the external environment. 1) The external environment dimension. This dimension covers policies and regulations, the regulatory system and credit environment i.e. factors mutually interactive, which is the basis for the good and orderly development of financial inclusion. 2) The supply dimension. This dimension reflects the infrastructure of and the access to financial inclusion services, which determines its availability. 3) The demand dimension. This dimension reflects the breadth and depth of the financial inclusion services usage, as well as the effect of using financial inclusion services, which determines the use and service quality of financial inclusion.

8.3 Components

We characterize the financial inclusion development from three aspects: the external environment, supply and demand through the primaries and expert evaluation, basing on the systematic analysis of the constituent elements of the financial inclusion development. Eventually we build a financial inclusion indicator system containing three elements, six sub-elements and forty-two indicators.

Section IV

Financial Inclusion Development and Innovation

Chapter 9 Microfinance Institution Innovation

9.1 Innovation Power

Microfinance institutions face the problem of survival and development. Their innovation power could be divided into internal drive (organizational factors) and external drive (environmental factors), both of which together promote the innovative practice of microfinance institutions, to enhance their financial service ability and effects etc.. For internal factors, microfinance institutions either own key technologies or resources that could be developed or used, or enhance their organization business, perform or propagate their firms' social responsibility, and promote the long-term development to reduce their costs. All of the above factors constitute the internal drive behind the microfinance institutions' innovation practice.

Take those representative innovation practice cases i. e. Hainan Rural Credit Cooperatives, CreditEase, and CFPA Microfinance for example, we can build the analysis framework of internal and external factors by sorting out the written case materials (see Figure 1).

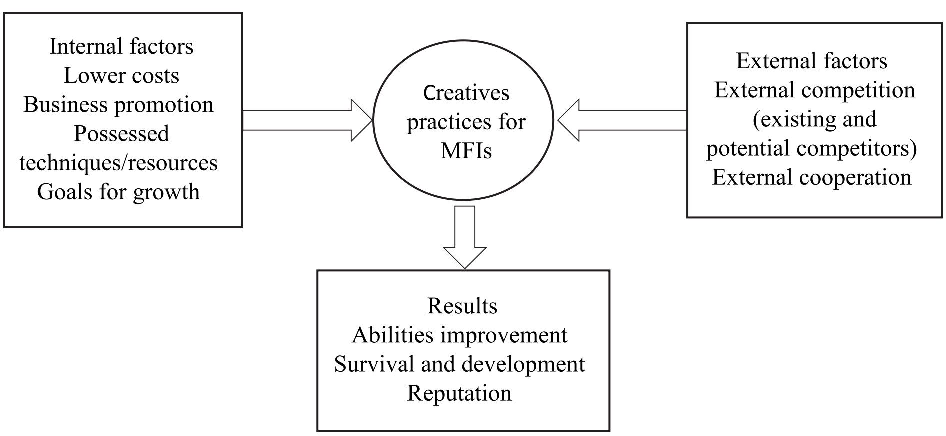

Figure 1 The Analysis Framework of Innovation Power

9. 2 Innovation Types

The innovation practice for microfinance institutions is a complex process, involving innovations from various aspects such as product, service, process, marketing and organization. Moreover, the new design and new combinations of various innovative elements could possibly create new value. This section analyze four representative cases, Jingdong "Pioneer Credit", Hainan Rural Credit Cooperatives, Tiandong Rural Commercial Bank and CreditEase.

9. 3 Innovation Effects

The effect of microfinance institution innovation practice should not be simply judged by the priority of financial inclusion, instead it should identify the relationship between the organizational impact and the financial inclusion impact. 1) The enhancement of the organizational impact may be consistent with that of the financial inclusion impact, therefore the enhancement of organizational impact is an effective way for the enhancement of the financial inclusion impacts given the above condition. 2) The organizational impact is not entirely consistent with the direction of financial inclusion. In such cases, we should be concerned about the mismatching part between the organizational impact and the financial inclusion impact, to search for innovation opportunities.

9. 4 Innovation and Development Direction

As discussed above, the innovation and development direction of microfinance institutions can be summarized as follows: 1) strengthen the internal driving force of the organization to build supportive environment; 2) understand the needs of financial clients; 3) promote the financial inclusion effect through various forms of innovation.

Case V CFPA Microfinance's Reform and Practice

CFPA Microfinance is a social enterprise that focuses on rural grass-roots financial services, whose predecessor was the microfinance credit department of China Foundation for Poverty Alleviation. It has been transformed into a company limited since

2008, specifically responsible for the implementation and management of microfinance trial projects for poverty alleviation.

CFPA Microfinance's clients are mid- or low-income families from rural poverty-stricken areas who have very little chance of getting loans from financial institutions. CFPA's products include two kinds of loans: the group-guarantee loans and the personal loans, with the average loan amount of 10, 000 RMB.

The characteristics of CFPA Microfinance's traditional small loans business include: 1) Using cash for the purpose of lending and collecting. With every loan, the loan staffers had to carry a large amount of cash coming to and returning from the homes of clients, thus making the risk of carrying cash higher and the cost of personnel, money and property more; 2) After every visit to the client's house, the loan staffers had to return to their offices to upload related files by computer, making it a heavy burden for the already busy loan staffers; 3) The headquarters has nearly zero regular compliance check-ups for the lending process, therefore it has become difficult to control the loan staffers' moral risks and clients' default risks. CFPA Microfinance hopes to lower the cost and improve efficiency by the informationization reform of the loaning process.

CFPA Microfinance has started its informationization management trial reform in 2013, aiming to run the business more regulated, to simplify the procerdures, to improve work efficiency, and to promote risk-control in multiple aspects, thus making the loaning process sustainable and replicable. In 2015, CFPA Microfinance completed its' overall informationization reform in all subsidiaries across the country.

Currently, CFPA Microfinance does not use cash for lending and collecting anymore, instead uses bank-company direct connection and "super e-banking" system for collective payments. CFPA Microfinance cancels the loan staffers' PC platform, and asks them to use mobile apps that automatically identify information on the ID cards and bank cards, and enables the loan staffers to upload their clients' files in real-time. The headquarters can be involved in the overall process of loan making, review all files' compliance in real-time, avoid frauds from the loan staffers. What is more, it is also able to evaluate the personal loans' clients' ability to repay loans through IPC technologies and has the right to veto personal loans. By introducing the mobile platform "Douxing", the loan staffers can use the platform for online learning, getting to know the CFPA Microfinance's latest news and interactions with colleagues.

The results of CFPA Microfinance's reforms are: 1) Reducing human resources costs. The Loan staffers can spend more time on developing the market; 2) Promoting safety and efficiency. The reform reduced the safety risks of the loan staffers carrying a large amount of cash and the risk of receiving counterfeits; 3) Saving money. Subsidiaries were able to remove accountants and cashiers; 4) Improving the process of risk control. The loan staffers and supervisors all expressed that, in the aspect of operational risks, the informationization reform has lowered the possibilities of making mistakes when inputting information. As regards to the moral risks, it has lowered the possibilities of the loan staffers' frauds, and in the aspect of clients' default risks, the headquarters' real-time check-ups are equivalent to adding a reviewing process when lending.

The existing problems in the CFPA Microfinance's informationization reform are that: 1) There are still some employees considering that the mobile app lacks many functions, making it uneasy for the bank to connect with the company; 2) Both the employees and the farmers still need time to adapt. Some employees need a longer time to learn how to use the new system, while some farmers think that using cash for collecting and lending is not convenient. The first problem can be solved by the CFPA Microfinance's efforts to improve both the mobile app system, and the connection between the company and bank systems, while the second problem's final resolution awaits the establishment of rural financial infrastructures and information.

Case VI Exploration and Practice on Microfinance of Hainan Rural Credit Cooperatives

Before 2007, Hainan "was afraid of microfinance", especially rural microcredit. Its non-performing loan (NPL) ratio had reached up to more than 90%, therefore, the financial institutions almost stopped granting microcredit to farmers, thus making farmers difficult in getting loans. On April 21, 2007, then governor of Hainan Province, Mr. LUO Baoming, met with "the banker for the poor", Mr. Mohammad Yunus, who came to attend the Boao Forum for Asia. As a result of this meeting, the Hainan Rural Credit Cooperatives (HRCC) kicked off Hainan's rural financial reform with microfinance at the core. HRCC created its own "one small pass" microfinance model by drawing on Mr. Mohammad Yunus's experience, and adapting to local conditions in Hainan, thus making this rural credit cooperatives on the verge of bankruptcy grow into the most competitive financial institution in Hainan, and promoting the development of Hainan's inclusive finance by finding an effective solution to mitigate the problem that the farmers find it difficult and costly to obtain financing.

The operation of HRCC includes mainly: First of all, the Hainan Province-specific "one small pass" microfinance model has been gradually formed. In April 2008, this model had began to be explored from the perspectives of personnel, products and organizational systems. By the end of January 2010, the "One small pass" covered all villages and towns in Hainan Province. In October 2014, the institutionalized and standardized microfinance management system had been formed.

Secondly, HRCC strives to promote the "nine specials and five handovers" microfinancing institutional innovation. "Nine specials" refer to: establishing special institutions, forming special professional teams, setting out special procedures, developing special series of products, creating special culture, implementing special subsidized loans, developing special systems, inviting special expert groups, and setting up special funds. The "five handovers" includes: handing over the "approval of loan" and "pricing of lending rate" to the farmers, handing over "paying of wage" and "prevention and monitoring of credit risks" to the credit staffers, and handing over the "management of loan" to the computers.

Finally, A new "cover-all" and "beneficial" way has been created gradually. 1) HRCC's microfinance has been expanding across the province and accounted for 89.9% of the province's total farmers' population that has access to microfinance; 2) The microfinance interest rates continued to decline, from 10.22% to 8.68%; 3) The microfinance NPL ratio went down gradually. It was 1.72% as of the end of September 2015.

The provincial government played a substansive role in the development of the HRCC's microfinance model: 1) The provincial government launched a bad-loan collection. It launched in 2008 and successfully collected 140 million RMB. This effort also led to the further collection of more than 2.4 billion RMB (NPL), which accounts for above 50% of actual NPL, and greatly reduced the financial risks; 2) The provincial government introduced the "10 clauses for the rural credit" . In May 2010, "Recommendations on Hainan Province in Support of Reform and Development of Rural Credit Cooperatives" was promulgated, and later the supporting policies including the special funds for the subsidy of the rural credit cooperatives' reform had been implemented; 3) The fiscal discounts, incentives and subsidies were provided. In 2014, farmers received a total of 90.3252 million RMB fiscal discounts. The fiscal incentives and risk subsidies accounted for 0.5% and 1.5% of loans respectively; 4) The farmer-benefiting service integrated system has been formed. Microfinance plays a role of platform to bring the agricultural technology sector, the poverty alleviation departments, the women federation and other branches together for cooperation.

The successful experience of HRCC can be summarized as follows: 1) It has been successful in its microfinance innovation; 2) It has established a strong leadership and a credit and loan team rooted in the rural areas; 3) The provincial government plays an effective role, and 4) It has achieved greatly in both breaking through the old inclusive finance supervision model and standardizing the new microfinance model.

Case VII Financial Technologies and Innovations ——A Case of Inclusive Finance from CreditEase

With its concept of "Everyone has credit, credit has value", CreditEase is committed to the development of inclusive financial undertakings since it was founded in 2006. For 10 years, it has deeply cultivated in the rural financial market and provided financial service for micro and small businesses. By 2016, CreditEase has established a powerful national synergic service network in 244 cities (including Hong Kong) and 93 rural areas, providing encompassing and personalized inclusive financial services for clients through its big data financial cloud, Internet of Things and other financial innovative technologies.

During the process of promoting inclusive financial innovation, CreditEase has three major innovations: emerging technologies-based capability innovation, demand-driven business innovation and client experience-based service innovation.

Capability innovation contains following five items:

Firstly, "credit and loan factory". Dependent on the network techniques, it completes the loan review and approval in batches, and achieves the centralized processing mode comprised of routining, modularizing and digitizing credit-making.

Secondly, financial cloud, a financial infrastructure with Docker technologies at the core. The typical application scenarios include: e-business platform, ERP software platform, etc.

Thirdly, "Easou", one big data and knowledge mapping-based risk management methods. It provides risk management assistance for all aspects of the loan through three dimensional search on the basis of credit data warehouse (DW) and mapping knowledge.

Fourthly, "Zhicheng Anti-Fraud", a big data-based risk management and control system. It is designed for P2P, microfinance institutions and credit departments of banks, and combines Zhicheng's credit score, loan data and risk list data to form microfinance industrial risk control solutions.

Fifthly, Yinongdai. It provides a platform for the urban caring lenders and rural women who are in good faith and need financial support in poverty-stricken areas, and addresses the issue of fund shortage.

Business innovations include:

Firstly, General Commercial Loan, a big data throughout entire credit management process. Based on big data financial cloud computing, it can complete the user's loan amount calculation within dozens of seconds and thus help the e-business platform sellers to solve financing problems.

Secondly, the fintech innovation optimization-agricultural machinery lease. Innovated in the term, type and approval process of agricultural machinery lease products, it can reduce directly the overdue occurrence from the product design.

Thirdly, the fintech innovation extension-living body lease. In allusion to the risks arisen possibly in the aquaculture industry, the "living body lease" products have been created with the cows as the lease subject.

Service innovations include:

Firstly, "Umbrella", an incentive-type promotion processes and methods. It is designed to encourage employees to recommend people around to download the Loan APP and register accounts for applying for loans at www. yirendai, com by way of rewards.

Secondly, CreditEase's three hours, an efficient optimal user experience. With the help of the big data risk control tools, the time from the clients stepping into the store and getting their loans can be controlled within 3h.

Thirdly, "AngelEase", which aims to help clients to expand their sales channels. It offers a series of value-added services such as technical support, channel development, etc, to promote the development of "AngelEase" in Jingning county, Gansu Province, and has also been successful in providing one package service of reservations, warehouse keeping and express delivery.

Fourthly, Credit Wings, for capacity building for micro and small business owners. It provides micro and small business owners and entrepreneurs with CreditEase V online courses, which are specially designed to promote their management capacity and entrepreneurship, and to build their capacity.

Chapter 10 A Comparative Study of Grameen China and CFPA Microfinance

10.1 The Classification of Microfinance Institutions

Microfinance institutions (MFIs) are hybrid since they adopt financial system techniques to address a social problem. According to the social exchange theory, MFI's hybridity pattern is the mix of the nature and organization of social exchange inherently. The nature of social exchange can be classified as "social core" and "social spillover", and the organization of social exchange as client-client reciprocity (CCR) and institution-client reciprocity (ICR).

Social core uses the depth of outreach in defining appropriate social impact and puts social impact above economic efficiency. It treats social impact as being rooted in both exchange and communal relationships, and that the results of social exchange includes both the improvement of financial and socio-emotional benefits. Social spillover targets on the clients' financial needs, while appreciating but not systematically addressing the clients' socio-emotional needs. It is a type of social exchange designed to primarily generate economic benefits for the transacting parties of the MFI-client exchange, while wittingly or unwittingly generating additional social benefits to the client as a marginal result of the economic exchange.

Client-client reciprocity (CCR) features system design and staff activities that facilitate the development of socio-emotional ties among members of a borrowing-group, and encourage them to exchange information and favors related or unrelated to the MFI's economic products/services. Institution-client reciprocity (ICR) features system design and staff activities that focus on the accomplishment of institution-client exchange and reduce the inter-client relationship to the joint liability of ensuring loan repayment. Table 2 combines the nature and the organization of social exchange to develop a framework about different types of MFI hybridity.

Table 2 Social Exchange Framework of MFI Hybridity

<table>
<tr><th colspan="2" rowspan="2"></th><th colspan="2">Organization of Social Exchange</th></tr>
<tr><th>Client-Client Reciprocity</th><th>Institition-Client Reciprocity</th></tr>
<tr><td rowspan="2">Nature of Social Exchange</td><td>Social Core</td><td>Social Business Hybridity</td><td>Under-Implemented Social Business
Misperceived Social Business
Misrepresented Commercialization</td></tr>
<tr><td>Social Spillover</td><td>Misconstrued Social Business</td><td>Commercialized Hybridity</td></tr>
</table>

10. 2 The Comparison between Social Business Hybridity and Commercialized Hybridity

Social business hybridity and commercialized hybridity are at two ends of the spectrum of microcredit-composite pattern. Social business model holds a more general understanding of the social impact or social performance, this understanding extends improvement from the increase of client's income and material conditions to non-economic factors (such as education and health), and from the customer's personal interests to socio-emotional connection between the client and maintenance of community relations, as well. Comparatively, commercial hybridity holds a relatively narrow understanding of the connotation of social impact or social performance, and emphasize on measurable increases of income and improvements of material conditions. Grameen China and CFPA Microfinance are two representatives of the social business model and the commercialized model of hybridity. Table 3 compares the characters of Social business hybridity and commercialized hybridity.

Table 3 Two MFI Models in the World

	Social Business Model	Commercialized Model
Appropriate Client of MFI	Ultra-poor, mainly women	Middle and upper level of the poor.
Organizational nature	Nonprofit but sustainable	Dual purposes of profit-making and poverty reduction
Approach to reduce poverty	Building social capital and empowerment	Rapid scale-up

续表

	Social Business Model	Commercialized Model
Mission drift	Mission drift refers to shifting clients from the poorest to the middle and upper level of the poor	Focusing on the middle and upper level of the poor does not refer to mission drift
Example	Grameen Bank，Pro Mujer，MicroCredit Enterprises，BRAC，Jamii Bora	Banco Compartamos，Pierre Omidyar，Compartamos，BancoSol，ProCredit Holding

10. 3　The Comparison between Grameen China and CFPA Microfinance

Both Grameen China and CFPA Microfinance claim to originate from the Grameen Bank model but diverge into dramatically different directions. While Grameen China has been working hard to replicate the complete Grameen philosophy and management systems in China，CFPA Microfinance strategically embarked on a localization process.

Grameen China has been strictly following Grameen principles and practices，seeking to expand the social impact by replicating the Grameen Bank model through partnership. In May 2016，Grameen China launched the second project in China，in partnership with the Yunnan Fu Dian Bank. CFPA Microfinance's predecessor was the Microfinance Project Department of China Foundation for Poverty Alleviation，which launched the first microcredit project in 1996. In 2008，CFPA Microfinance Management Corporation was established，which transformed the microcredit project into a company limited specializing in microfinance. Table 4 summarizes the difference between Grameen China and CFPA Microfinance.

Table 4　Description of Sample MFIs

	Grameen China（As of the end of April 2016）	CFPA Microfinance（As to the end of 2015）
Target Client	Theoretically focusing on the poorest women，while in practice having some marginally poor clients	Focusing on a wider range of clients from the poorest to the marginally poor to the not poor
Group lending	Risk control via social collateral through unspecified joint liability such as social capital.	Risk control via specified joint liability
Percent of borrowers who are women	100%	93. 32%

续表

	Grameen China (As of the end of April 2016)	CFPA Microfinance (As to the end of 2015)
Percent of borrowers who are below junior middle school education	Almost 100%	94%
Number of villages and cities covered	10 villages	17 provinces, 166 counties
Number of borrowers	82	306, 101
Average size of each loan	18, 000 RMB	12, 743 RMB
Total number of loans	2, 144, 700 RMB	12, 569, 510, 399 RMB
Annual interest rate	10%	12%
Repayment rate	99%	99.17%

Comparing Grameen China and CFPA Microfinance, we can find that:

Firstly, Grameen China features social core by designing and delivering its products around the purpose of generating comprehensive and communal social impact. CFPA Microfinance, instead, focuses products and services on loans and related training activities, while downplaying the efforts of building social capital among clients.

Secondly, Grameen China selects clients and partners on the basis of that they can generate sophisticated social impact expected by the Grameen model, which makes it costly to obtain right clients and partners. On the contrary, CFPA Microfinance targets on clients and partners who allow it to operate efficiently and grow rapidly.

Lastly, Grameen China explicitly requests its staffs to play a role in facilitating client-client reciprocity, and control the default risk by building client-client reciprocity, which is clearly not formally expected by CFPA Microfinance. Comparatively, CFPA Microfinance organize daily activities around an objective to strengthen the institution-client relationship and highlights the staff's function of ensuring repayment and to a large extent encourages staffs to maintain relationship with clients as a means to fulfill this function.

10.4 Conclusion

Typical representatives of Social business hybridity and commercialized hybridity respectively, Grameen China and CFPA Microfinance create different patterns, but are all important explorations of inclusive finance, and big push for the inclusive financial development in China. We found that Social Business Hybridity contains a financial self-sufficiency risk that makes the MFI unable to receive external funding or expand loans, while Commercialized Hybridity inherently contains a cognitive legitimacy risk resulting from misunderstanding, thus leading to a legal legitimacy risk that arouses legal challenges threatening MFI survival.

Chapter 11 E-Commerce (on-line)+Rural Supply Chain Finance

11.1 The Value of Rural Supply Chain Finance

11.1.1 The Rural Finance Puzzle

Lots of studies have shown that financial development can promote economic development. The rural economy is the weak link in the economic development, therefore the government needs to pay more attention to providing financial services needed for the rural economic development to promote its development, which is also an important task for the inclusive financial system. There are four characteristics for the rural financial services: 1) the scale of credit and loan is small, therefore no economies of scale; 2) high credit risk; 3) high degree of information asymmetry; 4) few asset collaterals with low liquidity. The results of those four characteristics could be summarized as "high risk, low return" .

For the traditional large financial institutions aiming at profits, they would not be willing to engage in the rural financial services unless they take a reform from inside to outside. China's traditional large financial institutions (state-owned and stock banks) accounts for 80% of the financial market, which implies that financial institutions holding 80% financial resources are reluctant to provide rural financial services. However, financial organizations and financial institutions with the task of serving the villages will also be bothered by the same questions as discussed above to various degrees, even they design the relevant products according to the characteristics of rural finance and organize the credit and loan management procedure with their own characteristics.

Then how to solve the rural finance problem? The rural supply chain finance helps us see a ray of hope.

11.1.2 The Value of the Rural Supply Chain Finance

The maximum value of the rural supply chain finance is to help overcome the rural finance difficulties.

First, it helps reduce the information asymmetry. The supply chain financial service exploits new customer groups including the upstream suppliers and downstream distributors. Financial institutions could be involved in the entire supply chain, from the credit rating for SMEs to the assessment of the whole supply chain, from the static assessment of the financial data of SMEs to the dynamic assessment of the entire trading process. Second, it helps reduce the credit risk. The core enterprises in the supply chain always have strong technical ability, marketing ability, market analysis ability, and even the price control ability for medium-sized firms. The core enterprises can help to reduce the market volatility risk faced by farmers through their marketing ability and help to reduce the product quality risk by providing technological support. Therefore, the rural supply chain finance can reduce the operation risk, thereby reducing the credit risk. Third, the rural supply chain finance can help achieve the economies of scale of loans. The supply chain finance is the finance relying on the core enterprises, avoiding financial institutions facing micro firms with little financing needs one on one, therefore it has the batch-size debit and credit. In particular, the supply chain finance could help overcome the asymmetrical benefit-to-cost problem brought by too small single transaction amount. Fourth, it could help increase the collaterals for the loans. Because of its large scale of operation and the participation of core enterprises with lots of collateralizable assets (and high liquid assets), the supply chain finance helps avoid the problem of directly facing the small farmer households lacking collateralizable assets. Therefore, supply chain finance increases the degree of compensation for loan defaults. In addition, the core enterprises in general have good brands and higher negotiating ability, easily to obtain insurance and the participation of and support from security agencies, increasing the level of protection for the safety of lending capital. For example, in the cases of Ant Financial Services Group and Mongolian Sheep, China United Insurance Holding Company participated in providing breeding insurance and credit and loan insurance for the farmers, greatly reducing the credit risk for Ant Financial Services Group. Fifth, supply chain finance helps both upstream and downstream farmers in the supply chain, rural SMEs to solve the financial services problems such as financing, insurance and settlements etc..

The main beneficiaries of the supply chain finance are those upstream and downstream enterprises dependent on the core enterprises, those firms are generally small. Therefore, the supply chain finance embodies the connotation of inclusive finance-serving the SMEs. When the supply chain finance directs to rural areas, the "agriculture, farmer and rural area" property of the beneficiaries further reflects the unique inclusive finance characteristics of the rural supply chain finance.

The second important value of the rural supply chain finance is to help promote the scale development of the agricultural production, and to accelerate the conversion process from the traditional agriculture to modern agriculture.

From the 1960s, the Chinese government set the goal of achieving the "agricultural modernization" as an important national policy. The agriculture in China has been moving forward to the goal of achieving modernization for half a century, although slowly but never stopped. In recent years, the Chinese economy has entered a "new normal". The agricultural economy is now facing challenges including price, cost and constraints of resources. Our government promotes further the development of agricultural modernization with great efforts and specifies that "changing he development model of the agriculture will be set as the fundamental way to further promote the agricultural modernization at current and in the future" ("the State Council on Accelerating the Transformation of Agricultural Development View" [2015] No. 59, July 30, 2015).

The rural supply chain has created a "farmer+firm+market" business model and an operation organization form. The rural supply chain puts together the small farmer households driven by the core enterprises and directly connects the scattered small-scale peasant economy to the market by the core enterprises providing the technical support, quality supervision and order control for the farmer households, leading to the improved competitiveness during the realization process of large-scale operations. Therefore, the rural supply chain is an important and effective organization method to promote the realization of our agricultural modernization. Certainly, the rural supply chain finance providing support for the rural supply chain has an important value for promoting the agricultural modernization and furthermore for the realization of modern rural transformation. In this sense the rural supply chain finance is the finance based on the advanced agricultural production model, which plays a crucial role in fundamentally changing the transformation model from the lagged agriculture to the advanced agriculture. Therefore the rural supply chain finance is a higher level of the rural finance model.

11.2 The Model and the Status Quo of China's Rural Supply Chain Finance

Various government-charged departments separately introduced policies and measures to support the development of rural supply chain finance, based on the full support and promotion of the rural scale development from the government. From 2014 to early 2016, nine documents on the rural (agricultural) development of supply chain finance by the State Council, the Ministry of Agriculture, China Banking Regulatory Commission were issued to create a favorable policy environment for the development of rural supply chain finance.

At present, the rural supply chain finance has two operation models, "leading enterprises+farmers+government+financial institutions" and "leading enterprises+cooperatives+financial institutions". Among those, leading enterprises refer to the modern companies already having a certain operation scale and influential brand and operating businesses such as cultivation, breeding and other agricultural related businesses, all related to their core business. With their mature products and stable market, those firms have the strong ability to control the downstream and desire strongly to control the quality and quantity of the upstream products. Cooperatives usually take a voluntary and mutually supportive model and are organized by relevant farmer households based on specific agriculture/aquaculture products. Cooperatives are voluntarily associated collective operation organization to some degree. In the cooperatives of the rural financial supply chain, the product variety of those members is consistent with those of the leading enterprises, the government plays its organizing and supporting role in the supply chain finance. As an organizer, the government helps the local farmers to find leading enterprises and financial institutions etc. using its own resources advantages, and helps achieve docking all stakeholders; as a supporter, the government plays even more its role in the policy environment, credit information, credit addition and guarantee etc.. Financial institutions refer to various financial or similar organizations providing credit funds for the rural supply chain. The current participants in the rural supply chain finance in China mainly include various banks, commercial factoring institutions and e-commerce businesses.

Both the "leading enterprises+farmers+government+financial institutions" model and the "leading enterprises+cooperatives (or farmers) +financial institutions" have the following common features: the government or leading enterprises are the leader of the supply chain, promoting the roles of organization, promotion and management in the supply chain, and providing credit guarantees in the financial activities; such activities as credit and payment etc. in the supply chain relies on the traditional commercial banks; engaging in agriculture-related products and industry operation, leading enterprises are modern companies with certain scales and brands, good marketing capabilities; the scope and scale of the supply chain depend on the leading enterprises' ability to access the market.

11.3 E-commerce+Rural Supply Chain Finance-Model Innovation and Value Enhancement

11.3.1 The Trend of E-commerce Entering the Rural Market in China

China's internet economy has been accelerated to develop since 2013. According to research institution statistics, the trading volume of the e-commerce market in China was 18.3 trillion yuan in 2015. The average growth rate of the e-commerce transaction volume in China reached to 33% for the 2012—2015 period. The rapid expansion of e-commerce market has brought new opportunities and challenges to the purchase and sale model of the traditional enterprises. More and more traditional enterprises reduce their costs, expand their market size through the internet, while the internet enterprises provide convenient trading channels for the traditional (offline) companies through the e-commerce market.

Faced with a huge untapped rural market in China, Alibaba, JD, Suning and other domestic e-commerce giants began to accelerate their expansion to rural areas. Among those, Alibaba launched the "thousands of villages and counties" plan at the end of 2014, planning to invest 10 billion yuan within 3 to 5 years, to establish 1,000 county operation centers and 100,000village service stations and to introduce the "flourishing the farmers" loans through its MYBANK system. JD comprehensively launched its rural e-commerce "3F strategy" to carry out its "county-village" two levels "agriculture, rural areas and famers" e-commerce layout, through self-operated county service centers and franchised rural cooperative place. Currently, its network already covers more than 600 counties in Shandong, Anhui and Jiangsu etc. , containing 100, 000 key administrative villages. Besides e-commerce giants, Alibaba and Jingdong, other influential special e-commerce enterprises also plan for the rural market, supplemented with rural financial services.

In order to expand the rural finance to match achieving their strategic layout of the rural e-commerce market, both the Ant Financial Group of the Alibaba and Jingdong Financial Group set their sights for the rural supply chain finance and carried out a series of pilot projects. Since 2015, the Ant Financial Group and Jingdong Financial Group have been accelerating their paces of rural financial development and launched the "leading enterprises+cooperatives (farmers) +insurance+e-commerce finance" model on after another. In this model, the e-commerce finance substitute the general financial institutions as the funds provider in the supply chain.

11.3.2 "E-commerce+Rural Supply Finance" and Value Enhancement

E-commerce refers to the virtual cyberspace for commercial activities based on the internet, and the management environment for the smooth operation of e-commerce; it also refers to the important places for the coordinating and integrating the information flow, material flow and capital flow to flow orderly, connectively and highly efficiently. E-commerce gets involved in the enterprise supply chain, promoting the information sharing, knowledge creation and organization revolution through their internet technology, leading to the value enhancement for the supply chain.

E-commerce contributes to the value enhancement for the supply chain from three aspects: first, it helps improve the information sharing efficiency in the supply chain, thereby contributing to minifying the bullwhip effects in the supply chain operation, suppressing the gradually enlarged fluctuation in the supply chain. The bullwhip effect is the most important risk in the management of supply chain; second, it brings the value enhancement for those supply chain companies by improving "reach", "richness" and "affiliation"; third, it enhances the supply chain value by improving the "procedure relationship" . Under the e-commerce environment, the data information technology improves the coordination and integration of the information flow, capital flow and commercial flow among supply chain companies; greatly reduces the coordination costs and forms strong support for the sales and distribution; also promotes the cooperation among enterprises in capacity planning, demand forecasting and inventory management; and helps the formation of the highly efficient supply chain procedure, to further improve the inter-organizational relationships and enhance the supply chain value.

Undoubtedly, "e-commerce+rural supply chain finance" greatly enhances the value in comparison with the relatively traditional rural supply chain finance. Based on our case studies of the "e-commerce+rural supply chain finance" sponsored by the Ant Financial Services Group and Jingdong Financial Group, we found the value enhancement of the "e-commerce+rural supply chain finance" is mainly reflected in the two aspects of financial services and market expansion, compared with the traditional rural supply chain.

First, it enhances the value of financial services, specifically reflected as follows: 1) it achieves the real-time and comprehensive risk monitoring before, during and after the loans in the supply chain finance by means of digital information technology, therefore reducing the default risk; 2) it could reduce the time cost of deposit and payment by fully taking advantage of the convenience of mobile payment, facilitating the farmer households; 3) it can further shorten the borrowing procedure of the farmer households, reduces the managing steps of relevant formalities and improve the loan application efficiency e. g. , the case of Ant Financial Services Group-Mongolian Sheep.

Second, it enhances the value in terms of market expansion specifically as follows: 1) it takes full advantage of the platform edge of the cross-regional e-commerce and its quick and comprehensive comprehension of the market demand information of the e-commerce, to help the leading enterprises to further expand their product sales market in the rural supply chain. For example, measures used by the Ant Financial Service Group helped the Mongolian Sheep to expand its market (see the Mongolian Sheep case); 2) it reduces links such as intermediate traders and agents to minify the degree of "bullwhip effect" caused by too long chains in the supply chain, through its docking manufacturers and final goods demanders using the e-commerce platform. For example, Jingdong participates in the loquat supply chain in Renshou County, helping achieve the close synchronization of the ultimate consumption and production on time and in the quantity through its planning activities; 3) it helps achieve greater and more efficient coordination and combination through the improvement of "reach", "richness" and "affiliation" by the e-commerce platform. For example, through its platform information advantages, the DBN pig farming supply chain finance combines every link in the supply chain, leading to multi-point connection for certain industries from N+1+1 (i. e. multi-farmer households+one leading enterprise+one financial organization) to N+N+N (i. e. multi-farmer households+multi-leading enterprises+multi-financial organizations) . Therefore it results in greater combination advantages.

Obviously, this model must rely on electronic business platform to achieve, and this model will lead to better co-organized results.

In short, the supply chain finance is a combination of cross-border industrial capital and financial capital, it could achieve the perfect effect of finance precisely assisting the industry i. e. the so-called "finance water watering the industry tree" . The rural supply chain finance plays its important promoting role in solving rural financial difficulties and implementing modern agriculture. And the "e-commerce + rural supply chain finance" enlarges the role of rural supply chain finance for the rural economic development, enhancing the value of rural supply chain finance, which is an innovation for the rural finance.

CASE VIII Ant Financial's Exploration on Rural Supply Chain Finance-Mongolian Sheep Project

Mongolian Sheep Husbandry Co. , Ltd (MSH) is a modern green ecological company with the entire industry chain that ranges from building the ecological meadows, processing organic fodder, breeding superior meat sheep, raising the sheep in the large-scale base to photosynthetic three dimensional husbandry, livestock trade centers, production and further processing, and national terminal sales. In 2014 and 2015, its sales revenue has reached a record of 1. 2 billion RMB and 1. 8 billion RMB respectively with its production and sales volume at the top of the industry for three years in a row. MSH hopes that it has a stable resource of Mongolian sheep to achieve the continuous production, while the key plan for the expansion of the sheep supply is to solve the problems such as backward breeding technique, difficult sales and insufficient fund. Based on the peculiarity of sheep breeding and the farmers' lack of credit, MSH worked out a "sheep joint body" model to fix the issue of insufficient fund. The so-called "sheep joint body" model is a breeding supply chain finance that brings together farmers and herdsmen, cooperatives, companies, banks, mortgage, and insurance.

MSH, in partnership with Ali Tmall, has found that +e-commerce would greatly expand the sales market, such as Juhuasuan platform which sets a record of the highest national sales volume for fresh mutton through e-commerce per activity, and provides convenient financial services as well. MSH's partnership with Ali Tmall kicked off a series of deep cooperation with Ali, including Ant Financial joining the MSH's Mongolian sheep supply chain finance. The Ant Financial not only provides funds as an investor, but also infuses new energy into the "sheep joint body" model.

In the Ant Financial+MSH supply chain, MSH would sign a purchasing agreement with farmers to breed the fat sheep in advance. Based on the agreement, Chinese Property Insurance would provide credit guarantee insurance for the farmers to increase their credit, while the Ant Financial would make its loans to the farmers based on its review for the entire workflow. The loan would be designated to purchase fodders on the Village Amoy Platform, which would transfer the fodder purchasing information to MSH simultaneously. After MSH purchases the fat sheep, the purchase money would be used to pay back the loans, while the processed mutton products could be sold at the Tmall's flagship shops.

The Ant Financial+MSH suppy chain is still in its design and trial phase. Based on its current progress, the expected results would be: 1) The risk control technique of supply chain finance would improve greatly. The use of digital information technique would help achieve the real-time and encompassing risk monitoring. According to the design plan, all the trading data would be kept online, and the Ant Financial could participate synchronically, conduct real time monitoring, and grasp the information of cash flow. Besides, the E- banks could digitalize all the data. The aggregate real trading data would help the Ant Financial to make good use of their successful experience in the data risk monitoring to accurately identify the risks and achieve the automatic credit-awarding with no human intervention in the future; 2) Improvement of the timely collection of Mongolian sheep's breeding information. With the timely information, the quality of products can be guaranteed; 3) Direct links between the production companies and the consumers, on the one hand, would shorten the time from farm to table; on the other hand, could reduce the Bullwhip Effect that was created in the supply chain due to the issue of long chain.

Case IX JD's Rural Supply Chain Finance: JD Rural Loan-Pioneer Loan

In September 2015, JD Group launched its rural (3F) strategy, in which JD planned that the sales channel on its e-commerce platform and its self-run logistics would cover the entire workflow of the purchase, planting and sales of agri-products, and JD would develop the financial products that target the financial needs of farmers' agri-production, based on the financial needs of the entire agricultural industry chain. In the mean time, JD Finance provides JD rural loan to meet the farmers' needs of operating loans. The first borrowers are the farmers who plant DuPont pioneer seeds in Shandong Province, and the farmers who planted loquat in Renshou County, Sichuan Province. JD rural loan has formed the operating mode of e-commerce + rural supply chain finance by adopting the way of supply chain finance. As of May 2016, the pilot project in Shandong Province has made loans to the amount of nearly 10 million RMB.

Wenshang county in Shandong Province is one of the pilot areas for the Jingdong rural loan-pioneer loan. Wenshang county is a key county for grain production in Shandong Province with wheat and corn as its staple grain. For the farmers who plant grains at large scale, they need to get loans, but it is difficult for the farmers to obtain the loans that they need. The big financing needs and difficulty in getting the loans is a major barrier for the large-scale agricultural development. Established in 2015, as an agricultural service company, Jining Grain Company (JGC) sells seeds whose planting area covers 30% of Wenshang county's total planting area, and provides farmers with the entire industry chain services that range from the pre-production purchase of agri-products, planting protection and technical assistance and services during the period of production to post-production drying and grain purchasing. As a key company in the suppy chain of the grain planting, JGC tried to work with the local financial institutions to launch a credit product that target the farmers' grain production to meet the loan needs of farmers. However, the local banks insisted that mortgage-backed loan be used, not to mention of their complicated procedures. The service of JD Finance aligns with the needs of JGC, so that Jingdong Finance engages in the supply chain of grain plantation by providing loan service through its pioneer loan mode.

The pioneer loan adopts the supply chain financial mode. The first step is that farmers submit their applications for loan on the official website of JD, then Jingdong Finance would work with JGC to review the farmers' applications. If approved, JD Finance would give the loans that the farmers applied to the account of JGC. With the loan received, JGC would sell agri-products to the farmers on credit. The features of pioneer loan are: 1) JD Finance hands over the credit-awarding right to JGC and emphasizes the interaction between JGC and the farmers during the credit-awarding process; 2) The pioneer loan establishes multiple layers of guarantee mechanism, which requires that the farmers buy production and personal insurance, plus three families' joint guarantee, client managers' guarantee, and JGC's full guarantee; 3) Fast-track review and loan-making. It takes about one week to complete the review process from the date of submission; 4) Interest rate is lower than that of the banks; 5) The credit-awarding farmers are the JGC's stable clients.

From September 2015 to May 2016, the coverage of the pioneer loan in Wengshang county has reached 1/4 big farmers and small farmers. As of 29, May 2016, the first set of pioneer loans has been in operation officially, but not yet reached the repayment date. The data shows that the monthly repayment bode well.

Despite still in its trial period, the pioneer loan has demonstrated good results: 1) It has greatly improved the convenience of loans by the farmers; 2) The loan period matches the production period, thus greatly improving the efficiency of loan use; 3) The credit business managed by local rural client managers has greatly reduced both the business cost and information asymmetry; 4) Both the designated fund and purchasing promise help reduce the default risk; 5) JGC's entire industry chain service ensures the quality of production and reduces the default risk as a result of business failure, while the plenty of money from JD Finance provides strong support for the large expansion of the supply chain.

Section V

The Impacts of Financial Inclusion

Chapter 12 Macro and Micro Impacts of the Rural Financial Inclusion Reform

12.1 Introduction

The rural area is the main battlefield of financial inclusion development. Rural financial reform is the main channel for the financial inclusion development. With the support from the central government and departments, Tiandong County has been carrying out the rural financial reform for eight years. It is a comprehensive and in-depth rural reform since the reform and opening up. Contrary to the neoliberalism economics theory, Tiandongcounty adopted the "government-initiated" model. Its success or failure relates to whether the rural finance could become a new starting point for the rural reform.

Using quantitative analysis method, we rigorously analyzed the data from both statistics and surveys and found strong evidence that the Tiandong County financial reform had significant effects in both macro and micro levels. The financial reform accelerates economic growth from the macro perspective and effectively improves the problem of unfair income distribution. Its important practical significance lies in the fact that financial reform relieves the problems of increasing income disparity and economic downturn.

12.2 The Macro Performance of Financial Reform

Tiandong County belongs to the Youjiang valley, with its upstream close to Tianyang County and its downstream linked to Pingguo County. Zhuang is the main nationality in those three counties which have similar climatic conditions. Both GDP per capita and average net income per rural resident are lower than those in Tianyang and Ping guo counties before the financial reform. Both the GDP per capita (Figure 2) and average net income per rural resident (Figure 2) in Tiandong County accelerated growth after the financial reform, surpassing those of the two neighboring counties. Then Tiandong kept leading in those two indicators, it also became the county with the smallest income gap among those three counties for its faster narrowing income gap between the urban and the rural. At the same time, the growth rate of the total loans did not perform outstandingly, but the agriculture-related loans increased significantly. We can get the initial conclusion from this result that by changing its loan structure, financial

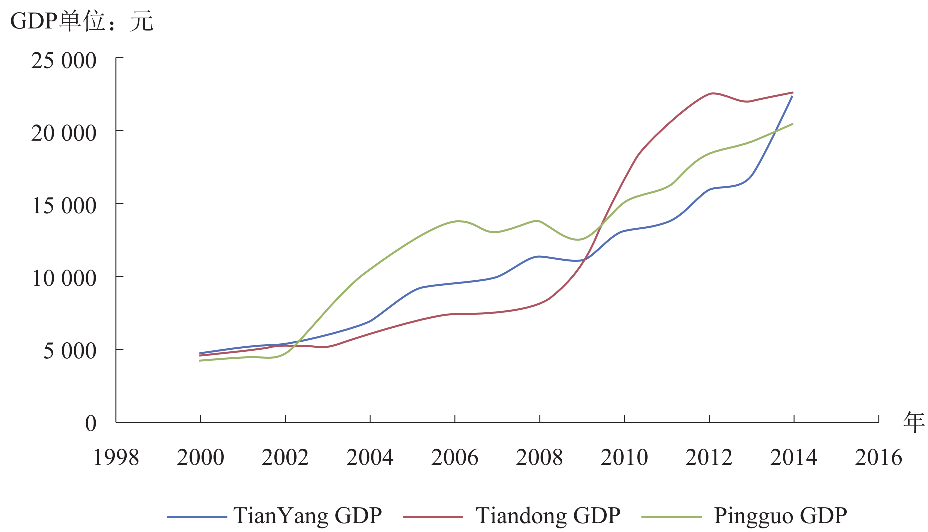

Figure 2　GDP per person in three Youjiang valley counties

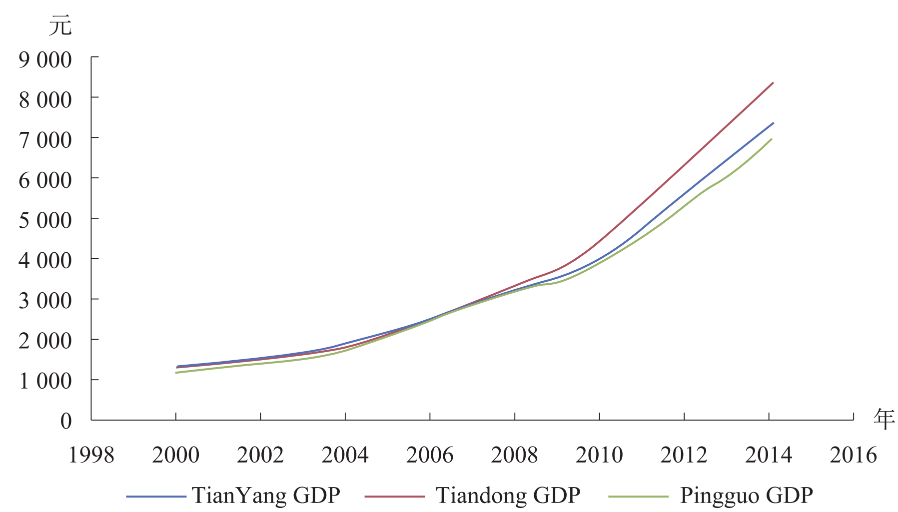

Figure 3　Net income per rural resident in three Youjiang valley counties

reform in Tiandong promotes financial institutions serve the grassroots communities of the villages, narrows the income gap between the urban and rural areas, and promotes the macroeconomic growth.

12. 3　The Micro Performance of Financial Reform

This result is confirmed with even stricter micro data. We used the quasi-experimental data for the comparative analysis of those financial inclusion indicators, and found that the reform effectively increases farmers' bank account ownership rate and usage rate (Table 5); the reform improves the financial service convenience in towns and villages so that the proportion of farmer households using town and village level banks for their business increases substantially; farmers' willingness to pay interests

Table 5　Summary Table of the Rural Financial Reform Impacts

Indicators	Impacts on Financial Inclusion	Methods of Verification
Macroeconomics		
Loan outstanding Per Capita	Growth as the control	Simple comparion of Reform and Non-reform
Share of Agri Loan	Increase	
GDP Per Capita	Increase	
Net Income of Rural Residents per Capita	Increase	
Income Gap between Urban and Rural	Narrow down	
Microeconomics		
Ownership of Bank Account of Rural Residents	Increase significantly, especially in credit cards	Non-experimental data analysis
Usage of Bank Account	Significantly increase in withdrawal, transfer and payment with bank account.	
Savings	No impact	
Usage of Digital Financial Services	Significantly increase in usage of ATM, but no change in Mobile and Internet financial services	
Distance Access to Bank Service	Increase in access to bank service inside the villages	
Microcredit	Significantly increase in loan, especially in loan on credit	
Interest	Significantly increase in willingness ot pay, but decrease in interest rate actually paid	
Income Per Capita of Rural Residents	Significantly increase 20 Yuan of net income with 100 yuan microcredit	Regression Model

increased significantly, but the actual interest paid significantly decreased; the reform stimulates the demand for credit so that the number of credit applications increased significantly, number of getting loans also increased with it, the proportion of farmers covered by loans also increased.

12.4 Financial Reform Increases the Income of Rural Residents

Although the financial reform would raise the average level of income of all farmer households, quasi-experimental data and regression analysis both showed that the income growth did not reach to the statistically significant level. However, for farmer household borrowers, an average of one yuan loan could increase their net income per person by 0.2018 yuan. If an average person gets a loan of 11, 000 yuan, which will bring the additional income equivalent to the amount of income earned by a migrant labor to the family; or the additional income is equivalent to the net income from 3.2 extra Mu arable land. Under the condition that human resources and land resources cannot change in the short term, the reform increases the proportion of agriculture-related loans and increases the farmer borrower coverage, which is the direct cause of accelerating net income per person growth of the rural residents.

12.5 Conclusions and Recommendations

From macro to micro, from relatively simple to rigorous quantitative analysis, a lot of evidence confirms that the eight-year financial reform in Tiandong County has significant consequences. It is a government-initiated, market-operated model. Our research result proves that in the poverty-stricken counties where the financial inclusion development lags behind, this model can effectively increase the financial service inclusion. Farmer households can significantly increase their revenues from the credit services promotion. We can summarize the Tiandong financial reform achievements from the above analysis as follows:

1) Reform established village financial services chamber to enable financial services serving the grassroots, and to facilitate the farmer households, to increase the banking account ownership proportion and frequency of use, and to, increase the the proportion of banking account ownership and frequency of use and increase substantially the proportion of farmer households getting the town and village level services.

2) Enable farmer households to better get used Through the increase in the account opening rate and utilization rate, farmer households are more familiar and skilled with the banking business procedure, and the bank card shopping and ATM uses, as well as the frequency of loan applications increases. and ATM uses etc. increase, so do the frequency of loan applications.

3) The Credit collateral system established in the reform increases the chances of farmer households getting the loans and then increasing the loan coverage rate.

4) As a result of fiercer competition resulting from the reform of established financial institution system and the government interest subsidy, the interest reduces. At the same time, years of financial reform improves the farmer households' production capacity and ability to pay bank interest by using financial services. Those two methods work together to help increase the rate of return from using financial services.

5) Under production conditions in Tiandong County, one yuan per capita loan could increase 0.2 yuan net income per capita.

6) The financial reform in Tiandong County influences the poor households than it does the non-poor households, which may be caused by the dual factors of the documenting and filing of the poor and the construction of the credit system, which give priority to the poor households to borrow with low interest rate.

7) Our analysis results prove that the government-initiated and market-operated combination model works effectively in the poor region, enables faster income growth of the poor than that of the non-poor, and narrows the income gap.

8) Financial reform not only makes the income structure more reasonable at the micro level, but also contribute to the rapid macroeconomic growth.

Based on the above results, we recommend: 1) financial inclusion helps promote the rationalization of the income distribution at the micro level and promote the overall economy growth. The Tiandong financial reform experience should be vigorously popularized with the current economic downturn in China; 2) rural financial reform must unremittingly be carried on to accumulate enough experience, thus to produce significant results; 3) rural financial reform must be comprehensive. We need to monitor the development of loan structure in the direction of favoring poor villages and poor households with the support of comprehensive reform containing the payment system, financial institution system, credit system, village level service system and the collateral system etc. 4) Ensuring rural households of convenient and preferential loan services should always be the core of the rural financial reform.

Chapter 13 The Effects of Rural Financial Services on the Poor

Our analysis in this chapter is based on survey data containing 363 farmer households. We conducted the survey in Xiapu County of Fujian Province, Chengde County of Hebei Province and Jingtai County of Gansu Province. For each county we drew three towns basing on their production and living conditions and levels. For each town we drew two representative villages and then randomly chose 20 farmer households as our survey sample using the systematic sampling method.

13. 1 The Difference between the Rich and the Poor Shown in the Loan Demand Curve

We divided the complex rural financial demand into two groups, the poor farmer households and the rich farmer households basing on our preliminary consolidation of the survey data.

The poor farmer households refer to those households identified and documented during the precise poverty alleviation process. We drew two different demand curves for those two different groups from the processing of survey data. Comparing those two demand curves, we find that: first, the poor farmer households demand for loans is less than that of the non-poor farmer households, the demand curve of the non-poor farmer households is clearly at the right; second, the slopes of demand curves are different, the poor farmer households have relatively upright demand curve while the demand curve for the non-poor farmer households is relatively flat.

13.2 Two Types of Rural Financial Institutions

Similarly, the various rural financial institutions can be divided into banking institutions and Microfinancial institutions. Banking institutions refer to rural credit cooperatives, postal savings banks and the agricultural banks. They have the basic characteristics of banks such as taking savings and issuing loans. The rest are small loan institutions which cannot take savings but can issue loans. In addition, the differences between banking institutions and Microfinancial institutions lies in such aspects as loan products, network distribution, registration and regulatory authorities. Because banking institutions have both financing and cost advantages, their supply curve is flat with larges elasticity, implying that they could offer relatively low interest rates, and small loans. While driven by profits, they are more willing to provide high-interest and great amount loans. For example, the single loan from the Rural Credit Cooperative ranges from 10,000 to 100,000 yuan. In contrast, Microfinancial institutions have to conduct their lending services with higher interest rates because of their high financing costs. Take CFPA for Microfinance example, its minimum lending rate is about 8% and its loan amount is below 12,000 yuan.

13.3 The Supply and Demand Equilibrium

Combining the demand and supply curves together, we can get a simplified diagram of the rural finance supply model in Figure 5.

The quartet model shows that a certain equilibrium will be ultimately achieved through competitive credit selection and gambling, driving by profit maximization. In general, financial institutions want to offer large single loan with high interest rates in order to reduce costs and increase profits. Although banking institutions are willing to and are able to provide loans to both when facing loan applications from the poor farmer households and non-poor farmer households, they will first supply to the non-poor farmers households (point N) but not the poor farmers households (point Q) as a result of profit maximization under the condition that the money supply is limited. For sure, the poor households first consider borrowing from banks because of its low interest rates. However, it is not easy and even impossible for the poor households to get

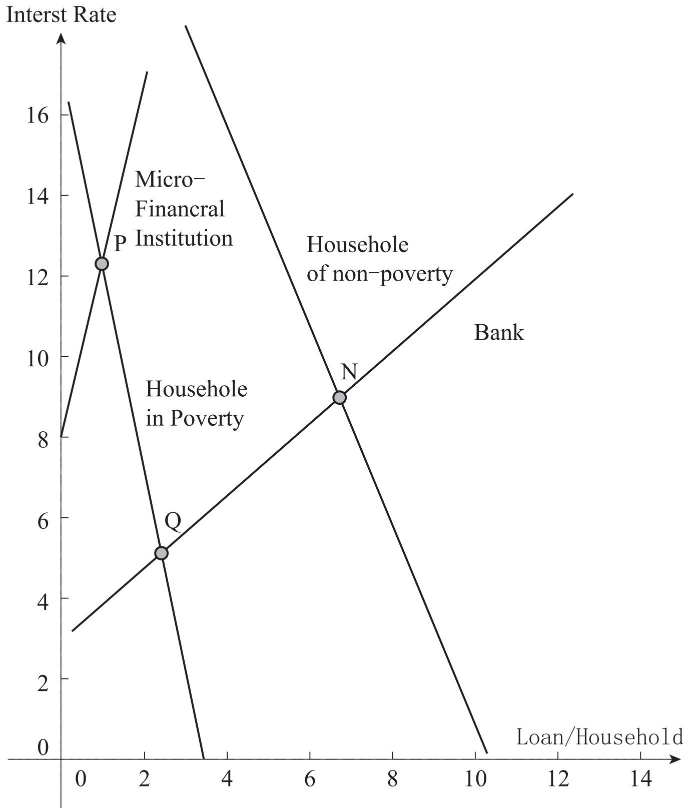

Figure 5　The relationship between supply and demand

the loans because they are not the priority of the banking services. So their only choice is the Microfinancial institutions. Because of their limited production capacity, the poor households can only choose the amount and interest rate at point P i. e. high interest rate and small amount.

13. 4　Interest Rate Changes

"Models could be used to analyze the impacts of various factors on financial inclusion, and those impacts could be confirmed by the survey data. We find that interest subsidies and restrictive policies can not ensure poor households to get the prime rate. Firstly, interest subsidies and restrictive policies mainly influence banking institutions and have very limited impacts on microfinance and rural credit loans. Secondly, reduced nominal interest rate favores non—poor farmer households more, who still afford to pay high interest rate for the loan scale at both points, and can get loans through bribery and other means. Thirdly, banks can also increase the real interest rate in the form of disguised charges. As a result, the increased real interest rate in equilibrium make it very hard for the poor households to get affordable loans."

13.5 Line of Credit

Microfinance institutions limit the loan amount to aim at the poor households and exclude the rich households. With limited conditions, the poorer households can afford to lower interest rate at point W (Figure 6); while the richer households can afford higher interest rate at point V. The relatively wealthy households can get loans by

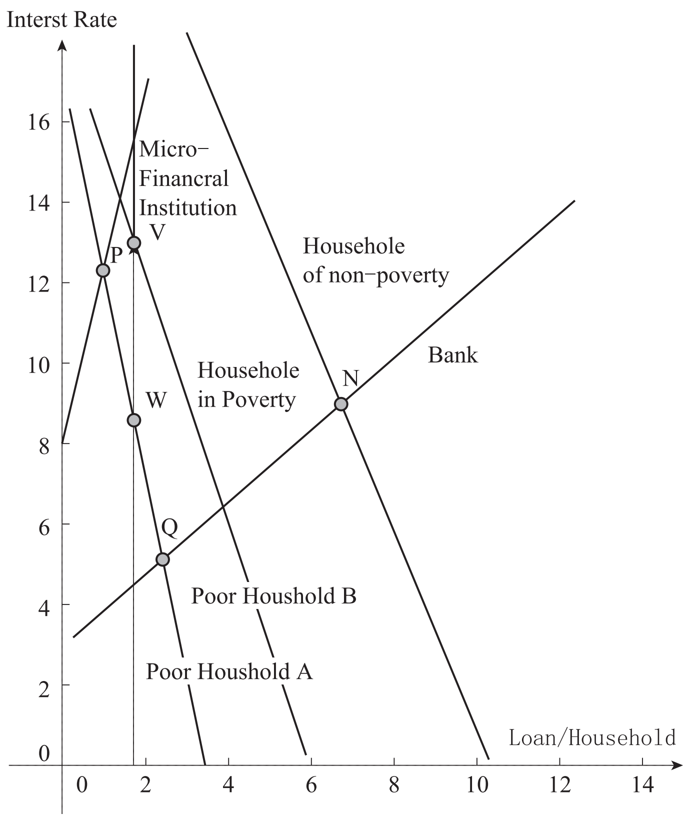

Figure 6 The impact of credit lines

paying extra expenses, invisibly raising the interest rate. The relatively poor farmer households can only select lower loan amount. If the limit is too low, some poor households will be excluded. On the contrary, if the limit is too high, the wealthy households still cannot be excluded.

13.6 Additional Loan Conditions

Regardless of the poor or non-poor households, the loan demand curve moves to the left with the addition of additional loan conditions, therefore the aggregate demand drops. The poor households demand drops from point P to point W (Figure 7) . The non-poor households demand drops from point N to point V. Some households withdraw from the loan market.

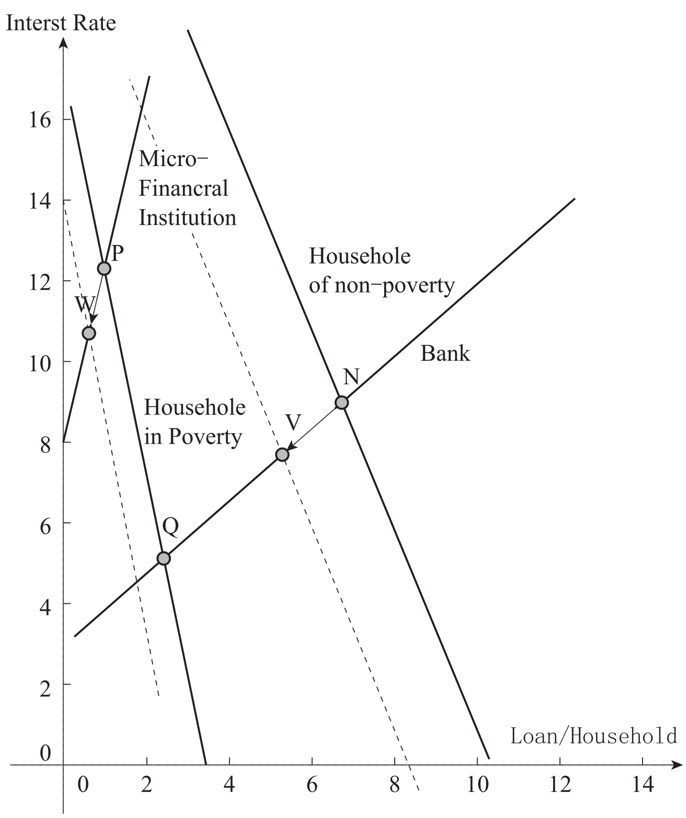

Figure 7　The impact of additional loan conditions

13.7 Institutional or Private Loans

Private loans are the substitution of institutional loans. Private lending is more active than institutional lending. Private lending is characterized by its small amount, reflecting the lack of small loan supply.

13.8 The Impact of Financial Infrastructure

Financial infrastructure is crucial in addressing the "last mile" problem. The village level financial service system in Tiandong County mentioned above helps positively stipulate farmers and financial institutions.

First, the improvement of financial infrastructure reduces the extra costs of the demand side's acquiring financial services and the cost of financial institutions, resulting in the move of the demand curve for both the poor and non-poor households to the right. And at the same time, the demand curve becomes even flatter for larger elasticity of the demand and supply curves. Then the original equilibrium points P and N were broken into new equilibrium points K_1 and J_1 . In the new equilibrium point, more farmer households get greater amount and lower interest rate loan services, regardless of either the poor or non-poor households. We need to empirically further analyze whether the improvement of infrastructure will benefit the poor or non-poor households.

13.9 Conclusion

We can reasonably explain the credit service differences between the rich and the poor by applying economic principles to build a supply-demand equilibrium model based on the survey data. First, there is a difference between the elasticity coefficients of the credit demand curves for the poor and the rich, which leads to different impact of the financial inclusion policy on the poor and non-poor groups. Second, rural financial institutions can be divided into two types, banking institutions and Microfinancial institutions, due to their different supply curve and different supply elasticity coefficients. Microfinancial institutions require high interest rates, provide low credit and have low elasticity coefficient. In contrast, banking institutions require low interest rates, provide high credit and have high elasticity coefficient. They play their different roles in financial inclusion. Third, with two different types of demand and two different types of supply, we see several equilibrium in the financial market. Models and survey data both confirmed that the poor group needs to pay higher interests to obtain a small amount of credit, while the non-poor group could obtain a larger amount of credit by

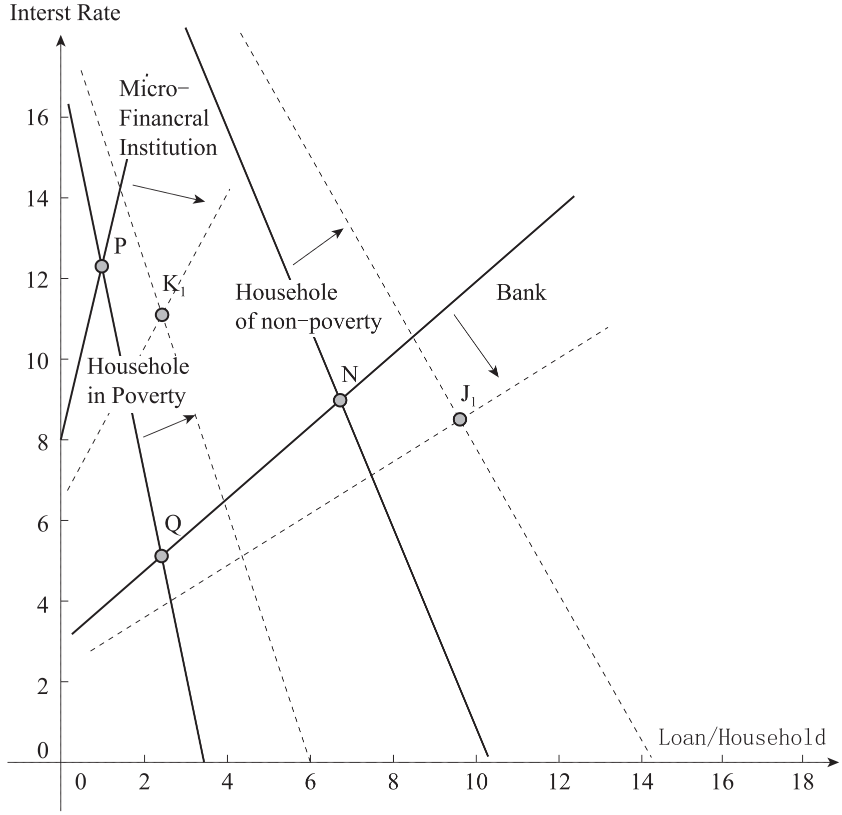

Figure 8 The impact of improving financial infrastructure

paying lower interests to the contrary. Fourth, the frequent interest rate cuts methods actually bring greater benefits to the non-poor households; and the credit limit policy is also conductive to households with relatively favorable conditions. Fifth, extra conditions such as long distance, complex lending process and high additional expenses will reduce the loan demand from both the poor and non-poor households. Sixth, institutional credit especially Microfinance works well, so that farmers find private lending for substitute. Finally, the improvement of financial infrastructure can contribute to enabling more farmers to obtain credit service with greater amounts and lower interest rates.

Thanks for the Supports of Following Institutions

(In no particular order)

Guangxi Foreign Capital Poverty Reduction Project Management Center

The Finance Office of Baise City, Guangxi

The Finance Office of Ningde City, Fujian Province

The Government of Tiandong County, Guangxi, and its departments such as the Office of Poverty Alleviation, the Finance Office, the local office of the China Banking Regulatory Commission, the local branch of People's Bank of China, Rural Commercial Bank, the branch of Beibuwan Bank, and the local branch of Agricultural Bank of China.

The Government of Pingguo County, Guangxi, and its departments such as the Office of Poverty Alleviation, the Finance Office, the local office of the China Banking Regulatory Commission, the local branch of People's Bank of China, Rural Commercial Bank, and the local branch of Agricultural Bank of China.

The Government of Jingtai County, Gansu Province, the local branch of the People's Bank of China and Rural Credit Cooperatives.

National Academy of Development and Strategy, Remin University of China

Hainan Rural Credit Cooperatives Union

Ant Financial Group

JD Finance

CFPA Microfinance