



# Technical Assistance Consultant's Report

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## People's Republic of China: Financial Demand Study of Farm Households in Tongren/Guizhou of PRC

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For the Asian Development Bank

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**Asian Development Bank**

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## Abbreviations & Acronyms

ABC	Agricultural bank of China
ADBC	Agriculture Development Bank of China
BC	Bank of China
CBC	Construction Bank of China
FHs	Farm Households
ICBC	Industrial and Commercial Bank of China
Na.	Not available
NGOs	Non-governmental organizations
PBOC	People's Bank of China
pRCCU	Provincial Rural Credit Cooperative Union
PS	Postal Saving
RCC	Rural Credit Cooperative
RCCU	Rural Credit Cooperative Union
RCFs	Rural cooperative funds
SME	SME
UCC	Urban Credit Cooperative

## Currency Equivalents

(as of 15 August, 2005)

Currency Unit	-	Yuan (RMB)
RMB¥1.00	=	\$0.1233
USD\$1.00	=	RMB¥8.1101

# Abstract

The report is based on the survey of FHs in Tongren prefecture, Guizhou province, which is a traditional farming region. As an underdeveloped region, planting and breeding still take very important place in the rural economic development.

The degree of economic development is the basic criterion to choose the sample to investigate. Firstly, according to the degree of economic development, we divided all the townships in the four counties into three kinds; secondly, in each kind of township, we choose one randomly; thirdly, with the same criterion, we divided all the villages in the chosen townships into three kinds, fourthly, in each kind of village, we also choose one randomly. In this way, we choose 36 sample villages in the 12 townships, 4 counties. Then in the 36 sample villages, we investigated FHs with questionnaires randomly, and 12 FHs at least in each village. Finally, we visited 503 FHs in all, and got 502 valid questionnaires. We also investigated the loans for FHs of 12 RCC.

The report consists of 5 parts. The first part shows the intention of research. The second part involves the illustration of surveyed regions and sample selection. The third part analyzes the basic conditions of sample FHs from the point of their age characteristics, family scale, and years of education of family head, employment conditions, income sources, wealth and saving capability. The fourth part analyzes the financial demands of FHs, which involves FHs' sources intention of production funds and their choice intention of borrowing channel, the borrowing demands and the conditions of obtaining loans, the understanding to microfinance for farm household of RCCs, actual credit line that FHs got and the credit coverage, the credit amount that FHs got from 2002, loan term and interest rate, funds demands in the future, the behavior of debit and credit among FHs, the econometric analysis of contributions that affect FHs' credit demands, the insurance of FHs. The fifth part is the summarization of research result, namely, the main findings and conclusion.

The financing difficulties of FHs and rural SME are always an outstanding problem that China's rural credit market faces. Microfinance for FHs arranged by RCCs since 2002 improved FHs' accessibility of formal credit in a certain extent. But,

the financing difficulties of FHs still exist: on the one hand, more FHs with credit demands have no experience in borrowing from the formal financial institutions, the loan coverage should be improved; on the other hand, FHs' loan demands is large, while existing loan amount is small, and the satisfactory ratio of loan demands is lower. More loan demands and more financing activities of FHs are still achieved through informal channel. There is more market room in rural financial market, which is also the basic conclusion of the report.

**Key words:** farm households    credit demand    informal finance  
RCC    loan coverage

# I. Introduction

The financing difficulties of FHs and rural SME are always an outstanding problem that China's rural credit market faces. During the survey of 365 FHs, 21 counties, 5 provinces in Zhejiang, Jiangsu, Hebei, Henan and Shaanxi in 1998, our research group found that as far as frequency of loans for FHs is concerned, the borrowing frequency of FHs from formal financial channel (RCC, ABC, other banks and non-bank financial institutions) takes 38.43% only of the total borrowing frequency, and the other 61.57% are attained through informal financial channels (of which, RCFs takes 0.6%, non-governmental credit 60.96%)(He Guangwen, 1999).

In order to resolve the financing difficulty of FHs and rural SME, PBOC enacted "Temporary provisions on management of RCC microfinance for farm household" in 1999, tried to pursue the microfinance in the formal financial system which was pursued by NGOs in the past, and improve the financial services for FHs lacking guarantee and collateral through financial business innovations. PBOC also enacted "Guidelines on management of RCC group lending for farm household" in January, 2000, "Guidelines on management of RCC microfinance for farm household" in December 10, 2001, which propelled the development of rural microfinance directly.

Microlending for FHs is a credit arranged by RCCs. Based on their creditworthiness, with the management method of "once check, lend anytime, outstanding control, revolving use", RCCs undertake to disburse loans to FHs in a given credit line and period without mortgage or guarantee. At the same time, RCCs combined the disbursement of microfinance for FHs with their credit promotion, the establishment of credit village or town, and the appraisal of credit FHs, which has not only established the incentive structure of loan repayment, but also improved the rural credit circumstance greatly, and change the difficult situation that FHs borrow and RCCs make loans thoroughly.

From the beginning of 2002, RCCs of China put forward microfinance in general. According to the statistic of PBOC, by the end of Sep. 2002, more than 90% of RCCs have provided microfinance for FHs, and the outstanding of agricultural loans of RCCs are up to 578.2 billion Yuan, of which, the outstanding of loans for FHs are 336.1 billion Yuan, and 46.57 million FHs have obtained the support of RCCs microfinance, 10.27 million obtained the support of group lending, the total FHs take

59% of those who have loan demand and meet loan terms, 25% of the total FHs. By the end of 2004, in the 230 million FHs in China, 120 million have loan demand, and 60 million of them have obtained loans from RCCs, the loan coverage rate to total FHs is above 25%, and 50% or so to those who have loan demand. The SME having got loans from financial institutions are beyond 50% (PBOC, 2005).

But, from the surveyed conclusion in recent year, the problem of financing difficulty of FHs and rural SME is still prominent. The questionnaire survey analysis of 217 FHs, 18 villages, 6 counties in Anhui province done by the Research Group of Center for Rural Economic Research of Ministry of Agriculture (Zhu Shouyin, 2003) showed that in the 524 loans of sample FHs, none came from commercial banks, 84 came from RCCs, taking 16% only, while those came from non-government took 79%; from the credit amount, non-government credit took about 80%, RCCs took 15% only. The questionnaire survey research of Guo Xiaoming (2005) on 243 FHs, 17 villages, 4 counties in Sichuan province showed that the credit proportion through RCCs and private credit is 33.5% and 66.5%, respectively, and the non-governmental credit is still the main source of FHs credit.

Then, how much is the loans demand of FHs in China? How much can be met from formal financial channel? These topics deserve further study. Therefore, supported by The Asian Development Bank, our research group investigated from the points of supply and demand in Tongren prefecture, Guizhou province in July, 2005. The survey of supply is developed from the loan supply for FHs of RCCs, because in Tongren rural area, RCCs are the main formal financial supplier in the present FHs credit market; the survey of demand is achieved through visiting FHs, and the contents of visiting and survey involve the basic economic situation of FHs, their loan demand situation, the method to meet their loan demand, the degree of satisfaction, the main contributions affecting their loan demand satisfaction degree, etc.

## **II. Illustration of Surveyed Regions and Sample Selection**

### **(I) The Location of Surveyed Region**

Guizhou is a typical traditional farming region in southwest inland area in China. The main characteristics of rural economy are more people while less cultivated land,

weak economic basis, a region inhabited by minority, mountainous district giving priority, scattered FHs settlements, more small scale FHs, which are also the long-term inhibiting factors that agriculture increases efficiency, peasants increase income and rural area develops. The demonstration analysis of the current situation that financial demands of FHs in these areas are met and its affecting contributions has very important practical and policy significance to resolve the loan difficulty of FHs and rural SME in the traditional farming region.

Surveyed samples concentrate on Tongren city, Jiangkou County, Shiqian County and Yuping County in Tongren prefecture, Guizhou province. Their location sees Figure 1.



Figure 1: the location of the 4 surveyed counties

## (II) Selection Method of Surveyed Sample

The degree of economic development is the basic criterion to choose the sample to investigate. Firstly, according to the degree of economic development, we divided all the townships in the four counties into three kinds; secondly, in each kind of township, we choose one randomly; thirdly, with the same criterion, we divided all the villages in the chosen townships into three kinds, fourthly, in each kind of village, we also choose one randomly. In this way, we choose 3 sample towns in each county, and get 12 sample towns in all; 3 sample villages in each town, and get 36 sample villages. Then in the 36 sample villages, we investigated FHs with questionnaires randomly, and 10 FHs at least in each village. Finally, we visited 503 FHs in all, and got 502 valid questionnaires. The distribution of surveyed sample sees Table 1.

Table 1: The distribution of surveyed sample

	Tongren city	Jiangkou county	Shiqian county	Yuping county	total
RCCU	1	1	1	1	4
Township RCC	3	3	3	3	12
village	9	9	9	9	36
FHs	143	120	119	120	502

## III. Basic Conditions of Sample FHs

The basic conditions of sample FHs include the basic information of family head and its family, the economic activities of FHs.

### (I) Basic Characteristics of sample FHs

1. Age characteristics. According to the distribution of age group, sample FHs give priority to middle and young people >30 years old, the proportion of 30~60 is up to 80%; while the proportion of FHs below 30 is lower, only 5.38% (sees Table 2), this is because, relative to the former, more of these people have more opportunity to go out for working or employed by local enterprises<sup>1</sup>.

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<sup>1</sup> In the analogous survey in Zhejiang, 2003, we also found the proportion of age group <30 years old in the sample FHs is lower. Our analysis holds that in the economy developed area of Zhejiang, there are more offfarm employment channels for peasants. The proportion of young people going out for work or engaging in offfarm industries in local cities is higher. So those leaving in rural area are mainly higher age group. It is obvious that the same reason can not explain the situation in Guizhou. In Guizhou, the main reason that the age group of young people are fewer is that in order to build a family, young people often go out for work or work in offfarm industries to complete the primitive accumulation.

Table 2: Age structure distribution of family head of sample FHs

Age group	<30	31~40	41~50	51~60	>60
Proportion	5.38%	25.9%	25.3%	30.28%	13.15%

2. Family scale of sample FHs. According to the family scale, it is between 1~12 people, the average scale is 5 people a family, the family with 4~6 people takes a leading rank (There are 358 in the 502 FHs, takes 71.31%), the average labor >16 years old is 3 people, and the families with 2~5 people are in majority (the proportion is up to 87.85%) (See Table 3).

Table 3: The characteristics of family scale of sample FHs

Items		The number of households	%	minimum	maximum	mean
Family people (X, people)	X <4	77	15.34			
	4 ≤ X ≤ 6	358	71.31	1	12	4.95
	X >6	67	13.35			
Family labor (X, people)	X <2	31	6.18			
	2 ≤ X ≤ 5	441	87.85	0	9	2.98
	X ≥ 6	30	5.98			

3. Education level of family head. According to the education level of family head, it is lower in general, 14.34% of sample FHs are illiterate, 43.82% have education of primary school only (1~6 year)<sup>2</sup>, 31.47% accept education of junior middle school (9~12 year), the proportion that accepting senior middle school or secondary specialized school is 8.36%, and that of universities and colleges or above is only 1.00% (sees Table 4).

Table 4: The educational distribution of sample FHs

	Number of households	proportion (%)
illiterate	72	14.34
Primary school	220	43.82
Junior middle school	158	31.47
Senior middle school	35	6.97
secondary specialized school	12	2.39
universities and colleges or above	5	1.00

<sup>2</sup> Include the situation that attended primary school but not graduated, which is rather more. That of junior and senior middle school is similar.

## (II) Economic Activities Information of Sample FHs

1. Traditional industry is the main economic activity field of FHs. According to the analysis of industries information that major family labors engage in, we can find that in the sample FHs, those who give priority to traditional planting and breeding take greater proportion, up to 76.1%, the proportion of FHs undertaking farm or nonfarm simultaneously is 17.73%, while that of nonfarm is 6.18% only. At the same time, there are 453 FHs engaging in planting (including those engage in planting single or simultaneously), taking 90% of total sample; 197 FHs engage in breeding, taking 39.24. All these indicate that in the sample area, the traditional agricultural production is still the main industry of local FHs<sup>3</sup>. In addition, for the nonfarm production, going out for works or working in local enterprises is the main choice, its proportion in sample FHs is 56.97% (In the 502 sample, there 286 choose the alternative.).

Table 5: Industries that main labors of sample FHs engaged in

Divided by industry category	Number of households	proportion
Agriculture (including planting and breeding)	382	76.10
Both farm and nonfarm	89	17.73
Nonfarm industries	31	6.17

2. The family income sources of FHs, which are connected with the industry engaging in by the main labors closely, still give priority to the traditional industry, but with the characteristic of source channel diversification. Because the industry that sample FHs engage in is mainly the traditional planting and breeding, so their income is the important income sources, which can be seen from the analysis of sample (Table 6). The FHs whose incomes come from whether single-source or multi-sources rely on traditional planting and breeding greatly. According to the sample FHs, the proportion of those choosing the single alternative<sup>4</sup> with planting as their only income source is 24.1%, as to multi-sources, planting and breeding are mainly engaged in simultaneously. It proves that planting and breeding take very important place in the income of FHs in surveyed region, which not only provide basic living security for FHs, but also are their main income sources. However, there are more FHs relying on the income from industrial and commercial activity, salaries and going out for work.

<sup>3</sup> The result is different from that of Zhejiang and Ningxia, where we surveyed in 2003. Through the analysis of the above areas, we found the phenomenon that FHs engage in several industries simultaneously is outstanding, of which, the proportion of FHs whose family head engage in traditional planting and breeding mainly is only 39.5%. Most FHs engage in other activities when they engage in farm production.

<sup>4</sup>Refers to the FHs chose the single alternative.

Table 6: Family income sources of sample FHs

	Multi-sources		Single-source	
	Number of households	Proportion to valid sample %	Number of households	Proportion to valid sample %
Planting	228	45.4	121	24.1
Breeding	19	3.8	23	4.6
Business	0	0.0	15	3.0
Salaries of teachers, doctors, village cadres, workers	4	0.8	11	2.2
Going out for work	2	0.4	64	12.7
others	0	0.0	12	2.4

Note: The answers can be chosen more. Therefore, we divided the FHs into single-source and multi-sources. The former refers to the households chosen that alternative only, while the latter means that alternative is the main income source of FHs, which have others income sources.

According to the industry classification that main family labors of FHs engage in, we can divide their income sources into incfarm(including the income from planting and breeding), incboth and incnonfarm three kinds. From which, we can see that there are 28.67% of FHs whose family income relies on incfarm, 49.2% have income from other industries in addition to incfarm<sup>5</sup>, and the family incomes of the other 20.32% come from incnonfarm (Table 7). In the study on sources of incnonfarm, we find that going out for work in the major income source, and 195 FHs, including those who engage in planting and other industries simultaneously, think going out for work is one of the major sources of their family income.

Table 7: Family income sources of sample FHs

	Number of households	Proportion to total sample%
Incfarm (including planting and breeding)	195	38.84
Incboth	195	38.84
incnonfarm	112	22.31
Incnonfarm from industrial work mainly	195	38.84

3. The status of family income and wealth is in general. From the objective estimation of sample FHs to their own family wealth and income to see, the results are identical (see Table 8). The proportion of FHs thinking their own family wealth and income in the middle-grade is 60.96% and 57.97%, respectively; and that of up-grade and low-grade is 17.33%, 19.52% and 21.71%, 22.51%, respectively. On the whole,

<sup>5</sup> Herein, the income sources deviate from the situation of industries that major family labors engage in, which is because when FHs chose their income sources, some thought planting offered income, while others thought planting offered food merely, but not income.

whether to wealth or income, up-grade FHs are fewer; most of them are in middle or low grade, which is connected with the low local economic development level. At the same time, during the survey of the house value and durable consumer goods that FHs own, we find, the house is the major property of FHs. Specifically speaking, the proportion of FHs whose house property value<sup>6</sup> is below 5000 Yuan is 24.5%; 5000~10000Yuan, 15.54%; above 10000 Yuan, nearly 60% (Table 9). From the owning of durable consumer goods to see, there are still 10% FHs have no one; popularization of TV is relatively higher, its proportion (whether black and white or color) is 63.94%; the proportion of FHs with more durable consumer goods, besides TV, is 28.29% (Table 9).

Table 8: Appraisal of family wealth and income by sample FHs themselves

	appraisal of family wealth		appraisal of family income	
	Number of households	Proportion to total sample%	number of households	Proportion to total sample%
Up-grade	87	17.33	98	19.52
Middle-grade	306	60.96	291	57.97
Low-grade	109	21.71	113	22.51

Table 9: House property and durable consumer goods owned by sample FHs

	Value of house property			Durable consumer goods		
	<5000	5000~10000	>10000*	none	TV**	More electrical appliances
Proportion to total sample%	24.50	15.54	59.96	9.96	63.94	28.29

Note: \* of which, the proportion of FHs whose house value is more than 30000 Yuan is 14.54%. \*\* of which, the proportion of FHs owning TV merely, but no other durable consumer goods is 29.08%.

4. The income of sample FHs is not high, some of them have little surplus, saving capability is lower. In order to understand the status of income and expenditure of FHs in recent years, we obtain the whole cash income and expenditure data of FHs in 2004 (Table 10). According to the analysis, we can see that the incomes distribution concentrate on above 10000 Yuan and 1000~5000 Yuan (taking 33.86% and 33.07% respectively), the average cash income of per FHs is 2000Yuan; while expenditures concentrate on 1000~5000 Yuan (taking 38.84%). From the above data, we consider that as to the rural residents on the whole, some of the FHs have little surplus, so certain saving capability (Table 11)<sup>7</sup>. If we combine

<sup>6</sup> Appraise in light of local market value.

<sup>7</sup> The FHs in traditional farming region have stronger idea that the fortune should not tell the outsider, so it is difficult to get the true saving information of FHs. In the survey, research group obtained the information of saving deposit outstanding at the end of 2004 from FHs, which can be reflect the basic condition of saving, although the

Table 10 with Table 11 to see, we can find the proportion of FHs whose annual expenditure is below 5000 Yuan to the total sample is 49.4%, while that of those whose saving outstanding is below 5000 Yuan is 70.72%, which indicates that the current saving of part FHs can meet their expenditure of one year, the capability of saving and resisting natural disaster and risks is insufficient.

Table 10: Family cash income and expenditure of sample FHs in 2004

	Family cash income in 2004		Family cash expenditure in 2004	
	Number of households	proportion	Number of households	proportion
<1000Yuan	33	6.57	53	10.56
1000-5000Yuan	166	33.07	195	38.84
5000-10000Yuan	133	26.49	133	26.49
>10000Yuan	170	33.86	121	24.10

Table 11: Saving outstanding of sample FHs at the end of 2004

	Number of households	proportion (%)
<1000Yuan	165	32.87
1000~3000Yuan	110	21.91
3000~5000Yuan	80	15.94
5000~10000Yuan	73	14.54
>10000Yuan	74	14.74

## IV. Financial Demand Analysis of FHs

### (I) Source Intention of Production Funds of FHs and Choice Intention of Credit Channels

1. FHs tend to select endogenous financing to develop production, but liability operation is also an important choice. According to the analysis of sources intention of start-up funds that FHs develop their production and operating activities, we can see whether FHs have borrowing intention. The choices of sample FHs are: 214 FHs chose to rely on self-accumulation (saving), taking 42.71%; 179 and 88 chose to rely on the loans of RCCs or banks, relatives and friends, respectively, taking 53.29% totally (Table 12). All these show that most FHs have credit demand. It is necessary

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actual saving outstanding is more than what we have got.

to point out that in fact, FHs tend to select endogenous financing with the characteristic of self-accumulation when they need funds to develop production, then because of the limited funds strength, and they will choose to borrow from RCCs or relatives and friends. At the same time, some FHs have the experience in borrowing from folk usurious organization when they are hunger for funds, but none of them choose to borrow from usurious organization when they consider the funds sources of production and operation activities, which also prove that FHs have stronger economic rationale when they make their production and operation decision.

Table 12: Source intention of start-up funds of production and operation activities of sample FHs

	Number of households	proportion (%)
①self-accumulation (saving)	214	42.71
②loans from banks or RCCs	179	35.73
③borrow from relatives and friends	88	17.56
Choose ①② simultaneously	5	1.00
Choose ①③simultaneously	12	2.40
Choose ②③simultaneously	3	0.60

Note: eliminate one farm household without any answers from the total sample.

2. Financing from RCCs takes important position in the intention choice of borrowing channels. In the survey of intention of borrowing channels of FHs, we find (Table 13) that in sample FHs, 56.18% want to borrow from RCCs, 40.44% select the alternative of borrowing from relatives or friends, the other channels used relatively little. Especially be worth notice that in the whole sample, only 3 FHs (taking 0.6%) select to borrow from ABC. In fact, big state-owned commercial banks can do nothing about providing credit funds to scattered FHs, so FHs lack credit will to them. From this, it can indicate that in these areas, RCCs take important position in the credit choice of FHs. Debraj Ray (2002) pointed out in the analysis of rural credit market that the rural credit demand can not meet sufficiently by big financial institutions such as commercial banks, because “the micro information needed by micro and small business can not make these big organizations cover market validly”.

Table 13: Borrowing channel will of sample FHs

	Number of households	proportion (%)
①borrow from ABC	3	0.60
②borrow from RCC	282	56.18
③borrow from relatives or friends	203	40.44
②③ simultaneously	13	2.59

## (II) Credit Demand of FHs and the Situation of Having Got Loans

1. The credit demand of FHs from formal financial institutions is higher, and that of middle and low incomes is prominent especially. In the survey of whether FHs need to borrow from banks or RCCs, we find that in sample FHs, 89.04% (447 households) select the alternative of needing, only 10.96% select not. Of which, the FHs needing loans concentrate on middle and low income group (taking 57.27% and 24.38% of those who need loans respectively); and the FHs need no loans are mainly high income ones (see Table 14). However, the further analysis of 55 FHs who select the alternative of need no loans indicates that only 36 FHs don't need loans indeed because their own funds can meet their need (Table 15). Therefore, the FHs who need loans are rather more, and the credit demand coverage of FHs is about 93%<sup>8</sup>.

Table 14: Credit demand of sample FHs

	Need loans		Not need loans	
	Number of households	Proportion to total sample%	Number of households	Proportion to total sample%
Total sample	447	89.04	55	10.96
Of which: Up-grade income	82	-	15	-
Middle-grade	256	-	36	-
Low grade	109	-	4	-

Table 15: The reason FHs select the alternative of need no loans

items	Number of households
Without living difficulty, and own funds can meet present production need	36
Want to loan but without good development project	9
Have other more convenient funds sources (non-governmental channel)	5
others	5

2. More FHs having credit demand have not the experience of borrowing from banks or RCCs. As far as the situation that FHs got loans is concerned (Table 16), in

<sup>8</sup>  $(502-36) / 502 * 100 = 92.83\%$

the sample FHs, about 68.92% had ever obtained the loans from banks or RCCs, of which, the middle-grade income FHs are the majority, but the difference in getting loans between up-grade and low-grade income households is not significant. 30.88% had never got loans, of which, the up-grade did not need loans, while for the middle-grade, esp. low-grade, it is difficult to get loans<sup>9</sup>.

Table 16: Conditions that sample FHs got loans from banks or RCCs

	Got no loans		Have ever got loans	
	Number of households	Proportion to total sample%	Number of households	Proportion to total sample%
Total sample	155	30.88	346	68.92
Of which: Up-grade income	17	-	80	-
Middle-grade	92	-	199	-
Low grade	46	-	67	-

Note: eliminate one farm household without any answers from the total sample.

### (III) Cognition of FHs to Microfinance of RCC

We can say the development of microfinance for FHs of RCCs is a great business innovation in rural financial field of China. On the whole, with this kind of micro-level innovation, RCCs facilitate the great improvement of contradictions between rural financial supply and demand with fewer costs. At the same time, the development of microfinance for FHs has great significance to develop the rural finance, esp. RCCs, because RCCs see from the angle of changing its own financial supply to adapt to financial demand of FHs. However, as to the surveyed area, the cognition degree of FHs on microfinance is different.

1. The coverage of RCCs microfinance business is wider, but FHs did not really understand it. 88% of FHs in sample knew that local RCC developed microfinance, indicating most of them gained some understanding to RCC microfinance.

Among the sample FHs, 77% are the members of RCCs. There are shareholders of RCCs. 40.3% of the RCCs shareholders was to become a shareholder after 2002<sup>10</sup>.

<sup>9</sup> For this, we analyzed the income of 42 FHs whose credit application was rejected, of which, only 2 are up-grade income households, the other 40 are all middle and low income households. The result proves the above conclusion.

<sup>10</sup> Since 2002, RCC started up to give micro lending to FHs. The highest share that FHs hold by RCC is 15000 RMB Yuan, and the lowest is only 1 RMB Yuan. 66.9% of the RCC shareholders hold shares lower than 100 RMB Yuan. 28.7% of them hold 100~500 RMB Yuan, 2.2% of them hold 500~1000 RMB Yuan and 2.2% of them hold more than 1000 RMB Yuan.

During the survey, we detected that 36.5% of the RCC shareholders were compelled to be it. Their share funds were deducted from their loans. Among those FHs, 70.5% have experienced that more than one time. Thereout comes a negative stimulation to the FHs and there are about 5-10% of the shareholders retreated from the membership.

The credit accessibility between RCC members and non-members is markedly different. 82% of the RCC member has got credit, but only 27% of the non-members.

But as to the credit rating to FHs and credit giving, only 35% (178 households) in the sample knew he was rated and given certain credit line by RCCs, this data deviated from what came from the suppliers (RCCs) (Table 17).

Table 17: Proportion of FHs rated and given credit line by RCCs

county	township	Proportion of FHs rated and given credit line by RCCs%
Tongren	HP	47.1
Jiangkou	BP	90.0
	MX	100.0
Shiqian	LJ	46.7
	ZHB	70.0
Yuping	TP	30.0

Note: data are provided by all the related RCCs.

2. The Average loan size obtained by FHs is smaller; the rate of loan satisfaction is lower. According to the credit line giving to FHs and its satisfaction, we can see that in the 178 households obtained credit (Table 18), the proportion of credit line of 5000 Yuan and below is 55.62%, 5000~10000 Yuan, 35.96%, 10000~30000 and above 30000 is fewer, the proportion of former is 6.18%, while the latter is only 2.25%.As to the given credit line, 56% FHs consider it can not meet their need.

Table 18: Credit line distribution of sample FHs given credit

Range of credit line	Number of households	Proportion to rating sample %
<5000	99	55.62
5000-10000	64	35.96
10000-30000	11	6.18
>30000	4	2.25

3. The credit line that FHs expect is far beyond what they got actually. The

answer to maximum credit line of FHs expecting provides reference to the design of microfinance line. In fact, the expecting credit line of FHs is their credit demand. From the sample FHs answered to see (Table 19), 30 households expect the credit line is above 30000 Yuan, 28 households 10000~30000 Yuan, 20 households 5000~10000 Yuan, the other 16 households think the credit line of 5000 Yuan or so is OK. Beyond 60% FHs expect the credit line is above 10000 Yuan.

Table 19: Credit line distribution sample FHs expected

Range of credit line	Number of households	Proportion to valid sample%
<5000	16	17.0
5000-10000	20	21.3
10000-30000	28	29.8
>30000	30	31.9

4. The attainability of formal financial credit of FHs increases. From the judgment on difficulty degree of loans to see, the development of microfinance for FHs has positive role in obtaining loans of FHs, nearly half of the FHs think getting loans become easier than before. At the same time, the development of microfinance for FHs develops the modern credit consciousness of FHs. In the judgment on decisive factors obtaining loans, family repayment capability and individual credit are considered generally the most important factors.

5. The cognition degree of FHs on group lending is lower. FHs still lack the cognition on group lending. In the selection of whether to join the group lending or not, 488 FHs make their answers. Of which, 56% selected unwilling to join, because 63.1% FHs are afraid that they will be involved by the other members of the group because of their losing credibility. But this can not be explained simply by losing credibility among FHs. The fundamental reason is for the FHs in surveyed area or in China, they lack steady income expectation on their own families and their neighbors. It is because of the uncertainty of expectation on future income causes the organizing difficulty of lending group.

## **(IV) Actual Credit Line of FHs and the Coverage of Loans for FHs**

The actual credit line of FHs refers to the actual credit line that FHs get from

RCC actually. The coverage of loans for FHs can be expressed with the proportion of the FHs in certain range (such as village) got loans to total FHs. These two indicators can be counted from the ledger of loans for FHs of RCCs.

In accordance with the statistic of loans for FHs provided by 11 town RCCs to 20 villages (Table 20), research group find that 90.2% credit line of loans for FHs is under 10000 Yuan, only 9.8% is above 10000 Yuan. According to the statistic of 17 villages having complete data, at June 30, 2005, the average outstanding of loans is merely 4612.6 Yuan, which proves that compared with their expecting credit line, the actual credit line looks too small, and the credit demand of FHs has not met greatly. At the same time, the difference of average credit line for FHs of each village and loan coverage of RCCs to FHs is greater (Figure 2). The highest average outstanding of loans of ZB village is 11754.6 Yuan, which lies near the town of Juchang, with relatively better economic conditions, developed planting, the purpose of loan is to build houses; the lowest of CJC village is only 1507 Yuan, which is far away from town, natural conditions is relatively worse, the purpose of loan is to develop planting.

In the 20 villages counted, the difference of loans coverage of RCCs to FHs is greater. The highest coverage of DJS village is up to 63.6%, while the lowest of HX village is only 17% (Table 20, Figure 2).

In certain area, because of the different distance between FHs and RCC, geographic surroundings, economic conditions, the loan satisfaction has greater difference also.

Table 20: Outstanding distribution of loans for FHs of RCCs (2005-6-30)

	多信用 社 RCC	村 Village #	贷款额度 (元) 分布 Loan size 千元 thousand Yuan (TY) %				农户贷款 Yuan RMB Average loan size	农户贷款覆 盖率 %Coverage
			X ≤ 1TY	1TY < X ≤ 5TY	5TY < X ≤ 10TY	X > 10TY		
制 仁 TR	BE	J	16.3	43.8	14.2	25.8	5a	5a
		B	35.7	56.9	3.4	0.0	5a	5a
	CD	BT	32.4	52.8	10.6	1.2	1792.5	5a
		GE	32.9	49.5	8.9	8.9	2067.9	5a
	EP	CFC	15.1	53.7	16.7	10.5	1507.8	59.8
		BC	26.1	40.7	25.7	6.4	3673.4	5a
江 口 JK	EP	EP	25.2	39.7	13.2	17.9	7529.7	48.2
		SL	32.2	44.0	11.8	9.9	4633.5	47.4
石 井 SQ	HX	GZ	15.2	43.4	25.6	17.8	7440.7	37.2
		LJ	32.9	56.2	9.9	3.1	2949.3	40.5
	FX	Y	54.1	41.2	2.7	2.0	1870.8	49.3
		X	34.7	50.5	5.9	8.9	4323.5	30.6
	ZB	HK	16.1	32.1	13.2	30.6	9676.8	17.0
		ZB	10.0	25.0	18.8	46.3	11734.6	46.0
QJS	44.7	46.6	5.8	2.9	2247.7	63.6		
玉 屏 YP	ZCH	ST	16.7	62.5	17.5	3.3	3994.6	56.0
		DT	16.6	62.4	28.2	3.9	4761.6	44.8
	ML	DT	2.4	20.8	75.2	1.6	8088.8	5a
		LYT	4.9	54.3	40.2	0.6	5958.8	41.3
	TY	SZA	14.6	63.9	18.1	3.6	5a	26.3
	平均 Average			24.1	47.6	18.4	9.8	4612.4

Note: statistic according to the loan ledger provided by all the RCCs.

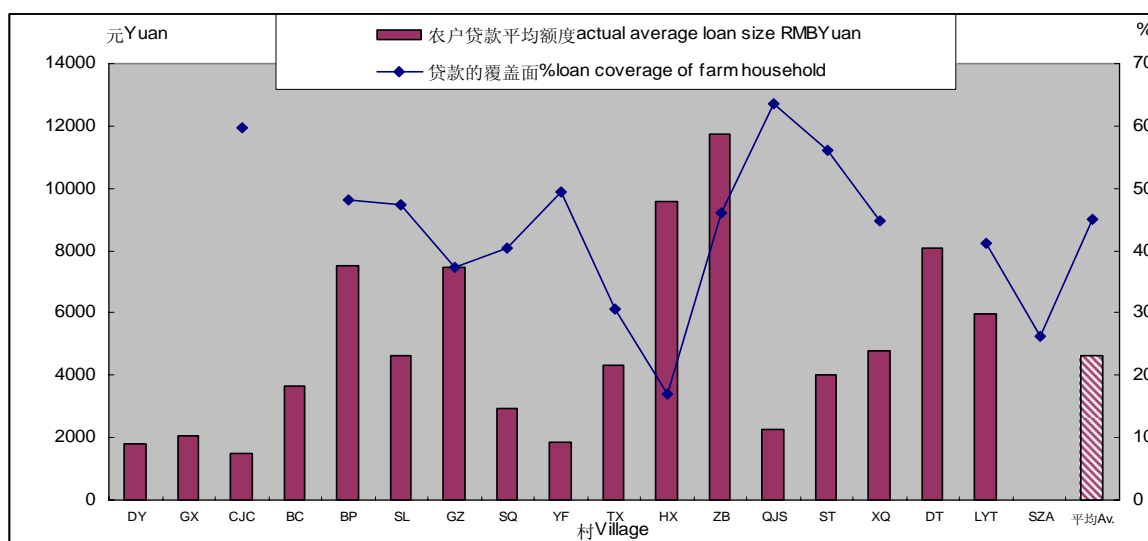


Figure 2: Average loan size of FHs and loan coverage of FHs

## (V) Condition of FHs Obtained Loans or Borrowing since 2002

The analysis of condition of FHs obtained loans or borrowing since 2002 can further reflect the situation that the credit demand of FHs being met.

(1) Formal financial institutions are the main channel FHs get loans. In the sample FHs, there are 365 obtaining loans or borrowings since 2002, taking 72.72% of the total sample, and getting 554 loans or borrowings totally, Of which, 378 loans come from RCCs, taking 68.23%; 6 from ABC, taking 1.08%; 164 from relatives and friends, taking 29.6%; 6 from international projects and other channels, taking 1.08% (see Table 21). Hence we can draw a conclusion that in the surveyed region, getting loans from formal financial channels (ABC, RCC) has become the main channels FHs get loans, which is different from the other research results. For this, the more reasonable explanation should be that in these areas, the development of RCCs microfinance improves the attainability of loans for FHs.

Table 21: Borrowing sources of sample households since 2002

Borrowing source	First borrowing	second	third	Total	proportion (%)
RCC	248	111	19	378	68.23
ABC	2	4	-	6	1.08
Relatives and friends	111	50	3	164	29.60
International projects and others	4	2	-	6	1.08
total	365	167	22	554	100.00

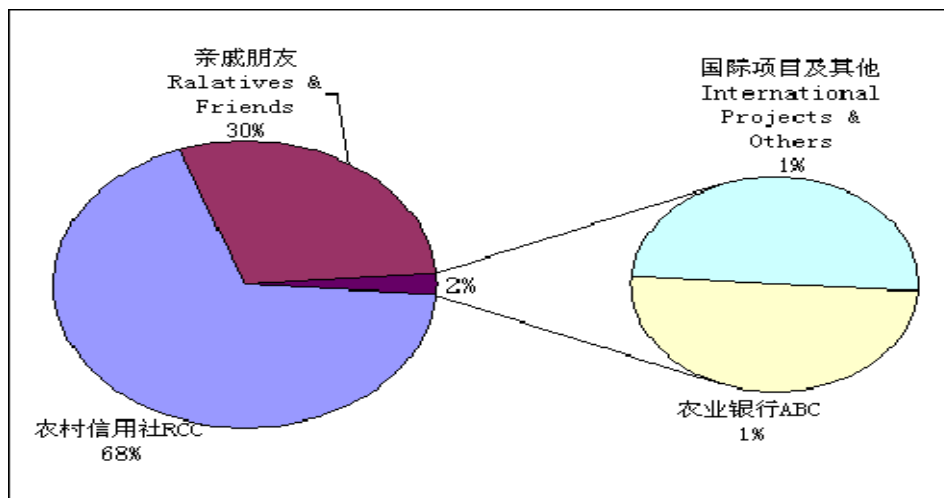


Figure 3: Borrowing sources of sample FHs since 2002

From Table 22, we can see the proportion of loans for purchasing farm assets is lower, only takes 9.38%. What's more, the usage of loans for FHs is scattered.

Table 22: Usage structure of borrowing of sample FHs since 2002 (statistic with lending households)

Usage of borrowing	First borrowing	second	third	Total	proportion (%)	
Planting and breeding	1.buy farm assets	29	18	1	48	9.38
	2.buy farm machinery	3	-	-	3	0.59
	3.buy poultry	105	48	7	160	31.25
Industry and commerce	4.develop industry and commerce	30	18	3	51	9.96
Living	5.see doctor	28	11	1	40	7.81
	6.weddings and funerals	10	4		14	2.73
	7.build house	54	19	5	78	15.23
tuition	8. tuition for children	45	23	1	69	13.48
others	9.repay the other borrowing	2	-	-	2	0.39
	10.go out for work	2	4	-	6	1.17
	11.others	25	12	4	41	8.01

Table 22 shows the actual usage of loans for FHs. In the survey, research group counted the usage of loans provided by 7 RCCs to 13 villages and 1 town RCC to its whole FHs in the township, statistic result sees Table 23, which is really the nominal usage of loans when FHs applied to RCCs. From the table, we can see the FHs,



FHs used the loans for developing planting and breeding & commerce and industry into other usages, mixed the production and living funds, which is an important characteristic of funds usage of FHs. Hence we can draw a conclusion that the services of rural financial institutions should be diversified further.

Table 24: Proportion comparison of borrowing usage between actual and nominal

	Actual proportion>nominal proportion	Actual<nominal
planting and breeding		√
commerce and industry		√
Life	√	
Tuition	√	
others	√	

(3) Most the FHs obtained loans without collateral or pledge, and fewer of them can offer collateral or pledge. (See Table 25) Of 501 valid answers about whether need mortgage, 433 have no mortgage, taking 86.4%. The analysis of 68 mortgage loans shows 64 mortgaged the houses, taking 94.1%. But in fact, the houses of rural residents do not have complete legal documents, house property certificate, even having, its ability changing into cash is weak, so this kind of mortgage is only a form. Of 424 valid answers about whether need guarantee if mortgage is not, 389 (91.7%) answer no guarantee. In the 34 samples answered no guarantee, 52.9%(18 samples) guarantors are relatives and friends; 26.5% are town and village cadres (9 samples); only 3 adopt the form of group lending, taking 8.8%; and 4 use the other forms, taking 11.8%. The terms of guarantee is prior to that of mortgage, but to loans for FHs, it is obvious that relying on traditional credit patterns can not meet the demand of FHs, so the credit pattern to FHs should be further innovated.

Table 25: Credit security of loans for FHs

Mortgage or not%		Guarantee or not, if mortgage is not%	
Yes	13.6	Yes	8.3
no	86.4	No	91.7
collateral%		Guarantor%	
Livestock	2.9	Relatives & friends	52.9
House	94.1	Cadres of town or village	26.5
Owens deposit	1.5	Group lending	8.8
Family wealth	1.5	others	11.8

In the survey of credit terms FHs can accept, we find that of 501 valid samples (Table 26), the FHs who can offer collateral or pledge take 23.9% (120 samples); 10.8% expect to obtain loans through the pattern of guarantee; 64.7% (325 samples) expect to get credit loans; and only 0.4% (2 households) expect to obtain loans through group lending. That is to say, the proportion of FHs who can offer collateral or pledge is not high. At the same time, when answer the question of what the mortgage is they want, 95.7% select the house. This is related to the low assets diversification in these areas.

Table 26: Credit terms FHs expect

	Number of households	%
Mortgage or pledge	120	23.9
credit guarantee	54	10.8
credit loan	325	64.7
group lending	2	0.4

## (VI) Life of Credit for FHs and Interest Rate

1. The actual credit period is shorter than that of expected. In the total 433 loans from 2002 to the end of June, 2005, the credit period below 1 year takes 93.1%, and that of above 1 year take only 6.9%. But to the question of credit period expected, of 499 valid samples, only 57.5% expect the credit period to be 1 year or less; 42.3% expect it to be above 1 year, which indicates that the actual credit period of more FHs is shorter than that of expected.

Table 27: Credit period requirement of FHs

Credit period expected	Number of households	proportion%
<input type="checkbox"/> 6 months	45	9.0
<input type="checkbox"/> 1 year	243	48.7
<input type="checkbox"/> 2 years	104	20.8
<input type="checkbox"/> 3 years	82	16.4
<input type="checkbox"/> 5 years or more	25	5.0
total	499	100.0

2. The interest rate range FHs can accept is wide. From 2002 to the end of June, 2005, of 411 samples who had borrowings and should pay interest, the proportion of FHs whose actual interest rate is below 10% is 97.3%, and that of above 10% is only

2.7%. But to the question of the highest interest rate they can accept, of the 141 samples, 68.8% think the highest interest rate should be below 10%; 18.4% think 10%-15%; 9.9% think 15%-20%; 2.8% think more than 20% also can be accepted (Table 28). Of all the valid samples, 361 did not answer the question, this can not indicate they do not need loans, or they do not concern the interest rate, of which, 83.2% FHs think when they are hunger to fund, as long as they can obtain loan, interest rate is not a decisive factor. Therefore, improving the supply of rural financial market should be the center of rural financial reform and development.

Table 28: Borrowing interest rate of FHs and their endurance of interest rate

Highest rate per annual FHs may accepted(X)	Proportion %	Interest rate distribution (2002-end of June,2005) %
$X \leq 10\%$	68.8	97.3
$10\% \leq X \leq 15\%$	18.4	1.7
$15\% \leq X \leq 20\%$	9.9	0.3
$X \geq 20\%$	2.8	0.7

3. The interest rate of non-governmental credit is higher. Of the 116 valid samples to the question of “What is the highest interest rate you know, when borrowing 100 Yuan from local moneylender?”, below 10% takes only 2.6%; 10%-40% takes 24.1%; above 40% takes 73.2%. Of all the answers, the highest is 360%, then 180%.

Table 29: Interest rate per annual of non-governmental credit

Interest rate (X) %	number of samples	Proportion to total sample%	Appraisal of researchers
$X \leq 10\%$	3	2.6	equal to that of formal financial market
$10\% < X \leq 40\%$	28	24.1	Within the legal approved range
$40\% < X \leq 100\%$	52	44.8	Without legal protection
$X > 100\%$	33	28.4	

## (VII) Funds Demand in the Future

1. The funds demand of FHs in the future is scattered. From the choice of the items with larger funds demand in the next 3 years (Table 30), we find that of 502 valid samples, the funds demand of FHs in the next 3 years is scattered, while the selection of enlarging the scale of planting & breeding, building houses, paying for

schooling is rather concentrated.

Table 30: Choice of the items with larger funds demand in the next 3 years

Items of expenditure	Proportion%
develop processing and business	8.8
Planting & Enlarge the scale of planting & breeding	16.7
breeding Purchase large farm machinery	1.0
life Build houses	14.7
Wedding & funerals	2.6
See doctors	6.0
Repay the borrowing	2.8
Pay for schooling	17.5
Multi-choice	25.1
others	4.8

2. Most FHs can not meet their funds demand in the future by their own funds. Of the valid samples of judgement on funds demand in the future by FHs (Table 31), 73.8% FHs can not be met with their own funds, of which, 65.5% think they can borrow from RCCs and other banks, and the other 34.5% can not, of which, 97.2% need to borrow from relatives, friends or neighbors to meet their demand, and 92.1% think they can borrow from private moneylender.

Table 31: Expectation of funds sources to meet demand of FHs in the future

<b>1. Can own funds meet demand in the future?</b>		<b>2. If not, can borrow from banks or RCCs?</b>	
	<b>%</b>		<b>%</b>
Yes	26.2	Yes	65.5
no	73.8	No	34.5
<b>3.If not, which channel expect to finance? %</b>		<b>4.Can borrow from private moneylender?</b>	
Buy shares by other people	0.0	Yes	92.1
Relatives, friends & neighbors	97.2	No	7.9
Local non-governmental credit organization	0.9		
Others	1.9		

## (VIII) Credits among FHs

1. Credit among FHs is rather widespread. Theoretically, the specific forms of rural non-governmental finance are more, including credit among individuals of FHs, rural enterprises, between individuals of FHs and rural enterprises, Rosca, all kinds

of foundations, underground private banks, money lender, even money laundering, funds and foreign exchange black market, financial fraud and all the other financial behaviors. Of which, some are non-organized financial behavior occurred occasionally, such as non-governmental credit, which is more widespread. In the survey of the question of “Have your family borrowed from local non-governmental moneylenders<sup>11</sup>?”, the FHs who made the choice, only 5.5% answered “yes”; while to the question of “Whether your family lent money to others since 2002? ”, 499 FHs made the choice, of which, 70.5% answered “yes”. From this, we can see this borrowing and lending is rather widespread (Table 32).

Table 32: Participation in non-governmental credit of FHs

<b>1.borrow from local non-governmental moneylenders or not?</b>			<b>2.lend money to others or not since 2002 ?</b>		
	Number of samples	%		Number of samples	%
Yes	15	5.5	Yes	147	29.5
No	258	94.5	No	352	70.5
Total	273	100.0	Total	499	100.0

2. The security degree of creditor’s rights formed in the credit among FHs is lower, and the arrear often occurs. For the FHs who answered “yes” to the question of “Whether your family lent money to others since 2002? ”, the objectives of borrowing are all the relatives, friends or neighbors, which shows stronger complex relation. Of 147 FHs lent money to others since 2002, only 7 have written form proving the relation of credit and debt, taking 4.8%; the other 95.2% have not any written proof (Table 33), merely having oral borrowing agreement. Only 1 household asked for mortgage and guarantee, and 99.3% have not set up security measures for creditor’s rights. What’s more, above 90% credit have not stipulated credit period, the expressions of “next month”, “ next year”, “after autumn”, “when having money” become the period arrangement words with high frequencies<sup>12</sup>.

Hence, 45% FHs having lending money can not take their money back when they need money. By the middle of July, 2005, of 147 FHs lent money to others since 2002, 73 have lending money not taking back, total amount is up to 236700 Yuan, the highest is 30000 Yuan, the lowest is 200 Yuan, the average is 3242.5 Yuan (Table 34). Therefore, it is necessary to construct credit culture, improve rural credit circumstance, strength credit consciousness of FHs.

Table 33: Normallization analysis of FHs credit

IOU or not?	Guarantee or collateral or not?	
	proportion%	proportion%

<sup>11</sup> It is not the same concept borrowing from non-governmental moneylender and relatives & friends, the former refers to the funds suppliers with the purpose of earning profit, so they will charge interest.

<sup>12</sup> The main reason is the uncertainty of time that FHs get income. And because of this, financial institutions should have flexibility when they decide the life of credit.

<input type="checkbox"/> yes	4.8	<input type="checkbox"/> yes	0.7
<input type="checkbox"/> no	95.2	<input type="checkbox"/> no	99.3
Interest or not?		Taking back on time or not?	
	proportion%		proportion%
<input type="checkbox"/> yes	1.4	<input type="checkbox"/> yes	55.0
<input type="checkbox"/> no	98.6	<input type="checkbox"/> no	45.0

Table 34: the lending (X) distribution of 73 FHs having not taken back at the middle ten days of July, 2005

$X \leq 1000$ Yuan	33 households
$1000 < X \leq 5000$ Yuan	30 households
$5000 < X \leq 10000$ Yuan	8 households
$X > 10000$ Yuan	2 households
Minimum(Yuan)	200
Maximum(Yuan)	30000
Total(Yuan)	236700
Average of per household(Yuan)	3242.5

## (IX) Econometric Analysis of Contributions Affecting Farm Household Credit Demand

Based on the above analysis, with the survey data, we will further analyze the contributions that affect farm household credit demand in this part. Based on survey data, a Binary Probit model is chosen to estimate the contributions affecting sample farm household credit demand.

### 1. Model

Supposed  $Y$  is a dummy variable, taking values of zero and one only. For every farm household, supposed  $X_i$  is the key to determine the value of  $Y$ , if  $X_i > X_i^*$ ,  $Y$  take a value equal to one; Otherwise, the value is zero. Probit model supposes  $X_i^*$  is a random variable obeyed normal distribution, so the probability of  $X_i^* < X_i$  can be calculated by probability distribution function. Standard normal probability distribution function is:

$$P_i = f(X_i) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{X_i} e^{-t^2/2} dt$$

Using Probit method to estimate the following equation, we can get the contributions affecting the value of  $Y$  and its direction.

$$Y = \alpha_0 + \alpha_{1i}H_i + \alpha_{2i}W_i + \alpha_{3i}I_i + \alpha_{4i}C_i + \alpha_{5i}L$$

Herein, dependent variable  $Y$  denotes whether farm household has credit demand and whether they can obtain loans, respectively (yes=1, no=0); independent variable  $H_i$  is a group of characteristic variables about farm household (age of family head, years of education, number of labors, etc.);  $W_i$  is a group variables about the wealth of farm household (financial assets, family wealth, etc.);  $I_i$  is a group variables about incomes and employment (income, the characteristic of income sources, offfarm, etc.);  $C_i$  is a group characteristic variables relating to the lending capability of farm household (the lending history in the earlier times);  $L$  is district variable.

## 2. The Definition of Variable

According to the information obtained, the variables selection and their definitions see Table 35.

Table 35: The Definition and Illustration of Variable

Variable	Definition
<b>Dependent Variables</b>	
Y1	Has credit demand or not, has=1, no=0
Y2	Obtain loans or not, yes=1, no=0
<b>Independent Variables</b>	
AGE	Age of family head
CREDIT	Obtain loans from RCCs or banks or not earlier times, yes=1, no=0
CREDIT-N	Number of obtaining loans or borrowing since 2002
EDUCATION	Years of education of family head, illiterate=1, primary school=2, junior middle school=3, senior middle school=4, secondary specialized school=5, universities and colleges or above=6
DEPOSIT	Outstanding of present family saving deposit, below 1000 Yuan=1, 1000~3000=2, 3000~5000=3, 5000~10000=4, above 10000=5
INCSOURCE	Income sources: incfarm=1, incboth=2, incnonfarm=3. Here, incfarm means income is

	primarily from agriculture (planting or breeding, etc) , incboth means income is from both agrichlture and off-farm income, incnonfarm means income is primarily from non-farm salary and business (teacher, administrators and others) .
LABOR	Number of adults >16 years
LOCATION	The variable of different county, Tongren city=1, Jiangkou county=2, Shiqian county=3, Yuping county=4
POPU	Numbers of family member
WEALTH	Wealth relative to neighbors, High =1, medium =2, low=3

### 3. Results

Based on survey data, with a Probit model, we take whether FHs have loan demands and if they get loans as dependent variables to estimate. The result sees Table 36. Then according to the result, we get the contributions having significant influence on dependent variables (sees Table 37).

Table 36: Estimated Result of FHs Credit Demand Analysis

<b>Dependent Variables</b>	Has loan demand or not	Obtained loan or not
	Y1	Y2
Estimate method: ML - Binary Probit		
Numbers of obs	501	500
Obs with Dep=0	54	155
Obs with Dep=1	447	345
<b>Independent Variables</b>		
AGE	0.00 (-0.49)	0.00 (0.17)
CREDIT	0.74 (3.75) ***	-
CREDIT-N	0.60 (4.28) ***	-
DEPOSIT	-0.15 (-1.96) **	0.02 (0.43)
INCSOURCE	-	-0.16 (-1.87) *

EDUCATION	0.04 (0.39)	0.13 (1.76) *
LABOR	-	0.03 (0.66)
LOCATION	0.04 (0.53)	-0.12 (-2.19) **
POPU	0.09 (1.68) *	-
WEALTH	0.39 (1.94) *	-0.31 (-2.38) **
C	-0.43 (-0.55)	1.23 (2.24) **

Note: 1. Numbers in parentheses are z-statistic. 2. \*, \*\*, and \*\*\* denote significant at 10%, 5% and 1% levels, respectively.

Table 37: The contributions having significant influence on dependent variables

	Has loan demand or not Y1	Obtained loan or not Y2
Positive significant contributions	CREDIT CREDIT-N POPU WEALTH	EDUCATION
Negative significant contributions	DEPOSIT	INCSOURCE LOCATION WEALTH

(1) As to the affecting contributions whether farm household has credit demand, the analysis shows that: ① CREDIT and CREDIT-N have very significantly positive effect, and significant at 10% level respectively, indicating that the credit demand will of FHs having obtained loans or having more frequencies of borrowing is stronger. In fact, as far as the vast numbers of traditional FHs is concerned, on the one hand, influenced by traditional ideas of “you feel relieved when you have no debt”, they would rather cut the consumption than borrow money in general<sup>13</sup>; on the other hand, long-term financial restraint makes FHs lose their hearts to borrow from formal financial channel, and the operation of FHs relied much on endogenous financing for a long period. So, once FHs have the experience borrowing from RCCs

<sup>13</sup>In the survey, we learned that a large part of FHs borrowed money only when they can not cut their consumption.

or banks, especially borrowing from formal financial channels many times, their credit demand will be stimulated greatly. What's more, as to the FHs having more borrowing experience, the experience accelerates the formation of modern credit consciousness. ② POPU has significantly positive effect, indicating the more people a family has, the more vigorous its credit demand is, because the economic burden of a family having more people is heavier, which will tend to cause more credit demand. ③ WEALTH has positive effect, indicating those FHs with low-grade wealth have intensive credit demand will. ④ Saving deposit outstanding of FHs has significantly negative effect (DEPOSIT is significant at 5% level) , indicating the credit demand of FHs having more savings is smaller. ⑤ Be worth notice is, in general, the wealth of a family should include the saving they owned, but herein, the effect of these two contributions to credit demand is opposite. The main reason is that from the actual situation of sample FHs, their families' main wealth is house property, while from the survey of the actual use of their borrowing, we can see that building is one of the main orientations of loans for FHs. So, the family wealth giving priority to house property has positive effect on the credit demand of FHs. Relative to house property, saving has strong ability to change into cash. FHs owning more savings can resolve the problem with their own funds when they need funds, so they need less credit relatively. ⑥ AGE and EDUCATION of family head, LOCATION are not significant contributions in the equation, indicating to the sample FHs, age, education and location has little effect on credit demand of FHs, because from the general situation, in the vast rural area, FHs have credit demand in general.

(2) As to the affecting contributions whether farm household can obtain loan, the analysis shows that: ① EDUCATION has positive effect, because the higher education the FHs have, the stronger their operating capability is, the stronger the capability of creating incomes is, the stronger the repayment guarantee is, so, the easier to get loans. ② INCSOURCE has negative effect, but this can indicate the FHs whose family income relied much on offfarm is not easy to obtain loans. Because the FHs whose family income relied much on offfarm have little credit demand, they applied little loans. ③ LOCATION has negative effect. Herein, the effect of the direction of independent variable is not important. Because in effect, in the current rural financial circumstances, RCCs are in the place of monopoly in the financial supply, whether FHs in different areas can obtain loans is determined by not only the economic and repayment position of themselves to a great extent, but also the services

of RCCs in local area. In the site survey, we find that in different areas, only because of the different ideas of RCCs directors; can the situation of supply and demand in the local rural financial market change. So the location has significant effect on whether FHs obtain loans. ④ WEALTH has significantly negative effect, indicating the FHs with low-grade wealth is not easy to obtain loans, because it relates to their repayment capability. ⑤ Age, saving outstanding owned by family and the number of adults >16 years have no significant effect. Our analysis thinks that the capability of FHs to obtain loans relates to their repayment capability to a great extent, so age and labor have little effect on dependent variable. While the main reason that the saving outstanding has little effect is that the FHs with savings have no or little credit demand.

## (X) Insurance of FHs

The economic strength of FHs is weak, and their capability to take risks is limited, so the development of rural insurance has very important significance to stabilize the income of FHs, improve the viability of FHs, especially those in the underdeveloped areas.

1. The insurance demand of FHs is larger, while their strength to insure is weak, so the rate of insurance participation is lower. In all the sample FHs, 92.2% think insurance is necessary, and 86.7% think it is worth to insure, indicating most of FHs have the consciousness of insurance. But, 49.4% of FHs have not participate any insurance, of which, 71.1% are because of no money or too high premium (Table 38).

Table 38: Insurance consciousness of FHs and their behavior

(1) need insurance or not?		(3) participate insurance or not?	
①yes	92.2%	①yes	50.6 %
②no	7.8%	②no	49.4 %
(2) Is insurance worthy?		(4) the reason not participate insurance?	
①yes	86.7 %	①no money	61.1%
②no	13.3 %	②Premium is too high.	10.3 %
		③Claim is too troublesome after the accident.	9.4 %
		④Children are insurance.	0.9 %
		⑤others	18.4 %

2. Insurance participation initiative of FHs is low, the insurance types can be chosen are limited, and alienates from insurance demand. In the survey, we find in the

FHs participated insurance, only 26.7% insured voluntarily, 61.2% are compelled by some factors, such as mobilization by village cadre, administrative order, buy when got loans (Table 39). Moreover, in the FHs insured, 71.1% of them bought medical insurance or student safety insurance, which are carried forward by government and schools, having some compulsory. In the choice of insurance types needed most, we find that besides medical insurance, the demand of planting and breeding insurance, property insurance, personal casualty disability insurance and retirement insurance are outstanding (Table 39).

Table 39: Insurance participation initiative of FHs and the insurance types they need most initiative of FHs and the insurance types they need most

How they participate insurance?		The insurance types they need most?	
Choices	%	choices	%
①voluntarily	26.7	①planting and breeding insurance	24.0
②persuaded by salesperson	9.5	②property insurance	9.3
③mobilized by village cadre	27.2	③personal casualty disability insurance	8.3
④administrative order	33.6	④medical insurance	42.7
⑤bought when got loans	0.4	⑤retirement insurance	13.0
⑥others	2.6	⑥ others	2.7
total	100.0		100.0

3. Insurance supply and service are below standard, which may affect the initiative of FHs in insurance. In the FHs insured, 13% had insured accident, of which, 35.5% think that the insurance claims are not in time; 1/3 think the insurance claims did not go forward as contract, and 100% of them having this experience consider insurance is not worth to buy, that proves it is very important to standard the insurance services of insurance suppliers, strength the propagation of insurance clauses, and make FHs understand insurance clauses deeply.

## V. Findings and conclusion

From the above analysis of farm household financial behavior, we can get the following findings and conclusion:

(1) From the analysis of basic information of sample FHs, we find that sample FHs can fully reflect the general picture of west poverty-stricken areas, the survey is representative.

(2) The economic business information of sample FHs indicate that the rural economic development of Guizhou, which lies in west poverty-stricken areas, is still in the stage of traditional agriculture, and planting and breeding still holds greater

share in agricultural economy.

(3) As to the sample area as a whole, from the analysis of income and expenditure of FHs, some of them have certain cash surplus and saving capability, while its economy is behind that of the east and middle areas.

(4) Though the funds that FHs develop production tend to endogenous financing of self-accumulation, the credit funds are also important funds sources. At the same time, some FHs have the experience in borrowing from folk usurious organization when they are hunger for funds, but none of them choose to borrow from usurious organization when they consider the funds sources of production businesses, which prove the economic rationale of FHs when they consider their production businesses.

(5) On the whole, FHs have a great deal of credit demand, RCCs and relatives and friends are the main borrowing channels that FHs tend to mostly, while the indifference of FHs to loans of big commercial banks such as ABC also proves that the big state-owned commercial banks accomplished nothing to provide credit funds to scattered FHs.

(6) The credit demand of FHs to formal financial institutions is greater, and that of middle and low income FHs is special prominent. At same time, more FHs with credit demand have no experience in borrowing from banks and RCCs, their credit demand did not meet.

(7) Middle and low income FHs are the main loan demander, but for the middle and low income FHs , especially the low income ones, their badly income status determined their weak repayment capability, so they are more difficult to get loans.

(8) The development of microfinance of RCCs for FHs improved the credit attainability of FHs greatly. And because of this, formal financial institutions have become the major channel that FHs get loans in the surveyed sample areas. But, the difference of loan coverage of RCCs to FHs is greater. At the same time, the average loan amount that FHs got is less, the rate of loan satisfaction is lower. The credit line that FHs expect is far beyond what they got actually.

Be worth noticed is that FHs lack the cognition of group lending.

(9) The condition of FHs obtained loans or borrowed since 2002 shows that the usage of credit diversifies, but fewer on planting, and the production funds and living

funds are often mixed together. Developing breeding is the main usage of production credit demand of FHs, while building houses and educational expenditure for children is the major orientation of their living credit demand. From the credit terms, traditional mortgage or guarantee methods have little role to FHs, the main reason is that FHs have low-grade asset diversification, and the assets value is lower. So, in order to meet the credit demand of FHs, the method of financial supply for farm household should be innovated continuously, and the credit business field beyond traditional industry should be expanded.

(10) The actual life of loans for FHs is shorter than what the FHs expected greatly. Therefore, according to the characteristic of agricultural production and the stronger uncertainty of income sources of FHs, the life of loans for FHs should be flexible.

(11) As long as obtaining loans, the interest rate is not a determinable factor of borrowing. The range of interest rate that FHs can accept is wide, and the interest rate of non-governmental credit is higher.

(12) Funds demand of FHs in the future is larger, and most of them can not meet by their own funds, so their demand need to meet with funds borrowing from RCCs, relatives and friends, which also proves there are larger development space in rural credit market.

(13) The credit among FHs is widespread, and without interest by and large, which played important role in meeting funds demand of FHs. But the security degree of creditor's rights formed in the credit among FHs is lower, and the arrear often occurs. So, we should, on one side, improve rural credit circumstance, strength credit consciousness of FHs through the construction of credit culture to increase the rate of keeping a contract; on the other side, further increase satisfactory rate of credit demand of FHs and reduce non-governmental credit through increasing the formal financial supply.

(14) Whether FHs have credit demand, whether they obtain loans are determined by the contributions, such as farm household has ever obtained loans, the frequency they got loans, the number of a family, family wealth and income of a farm household, its saving status, the age and education of family head, the business innovation capability of a local financial institution. However, their effects and degree are unanimous.

(15) The insurance demand of FHs is larger, while their strength to insure is weak, so the rate of insurance participation is lower. At the same time, insurance participation initiative of FHs is low, the insurance supply alienates from insurance demand, insurance service are below standard, which affected the initiative of FHs in insurance. So it is very important to standard the insurance services of insurance suppliers, strength the propagation of insurance clauses, and make FHs understand insurance clauses deeply.

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# List of People Met

During the Financial Demand Study Survey between 7/11/2005-7/28/2005

## Guizhou Provincial Government

Jiaji Hu	Deputy Director	Guizhou PBOC
Naiyun Liu	Head of Board Committee	Provincial RCCU
Qikui Chen	Deputy Director	Provincial RCCU
Rui Song	Deputy Director	Provincial RCCU
Yong Sun	Division Head	Research Department, Guizhou PBOC
Ming Xiang	Senior Research Fellow	PBoC Guizhou

## Tongren Prefecture and Tongren County

Xiangfu Tian	Director	Tongren PBoC
Xinkang Ma	Deputy Director	Tongren PBoC
Zhongxue Zhang	Division Head	Tongren PBoC
Lusheng Jiang	Senior Officer	Tongren PBoC
Guangqian Wu	Head of Board Committee	Tongren County RCCU
Jun Yang	Director	Tongren County RCCU
Guanghai Wang	Deputy Director	Tongren County RCCU
Zhishan Yang	Head of Supervision Committee	Tongren County RCCU
Guohai Wan	Division Head	Tongren County RCCU
Luxia Tu	Division Head	Tongren County RCCU
Lishan Wu	Deputy Director	Bahuang Township RCC, Tongren County
Ying Jiang	Accountant	Bahuang Township RCC, Tongren County
Lianrong Deng	Director	Chadian Township RCC, Tongren County
Yuzhong Lu	Deputy Director	Chadian Township RCC, Tongren County
Minghui Jiang	Accountant	Chadian Township RCC, Tongren County
Dingjin Wu	Director	Heping Township RCC, Tongren County

## Jiangkou County

Ming Pan	Director	PBoC Jiangkou Branch
Bangrong Wu	Division Head	PBoC Jiangkou Branch
Dawen Wu	Head of Board Committee	Jiangkou RCCU
Qiuyun Wu	Director	Taiping Township RCC, Jiangkou County
Xingyu Mei	Director	Bapan Township RCC, Jiangkou County
Jun Yang	Deputy Director	Bapan Township RCC, Jiangkou County
Zhaoxiong Yang	Director	Minxiao Township RCC, Jiangkou County
Xiaoyang Yang	Deputy Director	Minxiao Township RCC, Jiangkou County

### Shiqian County

Gangliang Li	Director	PBoC Shiqian Branch
Mengchun Du	Division Head	PBoC Shiqian Branch
Wenmin Li	Head of Board Committee	Shiqian County RCCU
Jihua Liu	Director	Shiqian County RCCU
Shiqiang Wang	Deputy Director	Shiqian County RCCU
Kun Yang	Division Head	Shiqian County RCCU
Zhaisong Yang	Division Head	Shiqian County RCCU
Chuanjiang Liu	Director	Longjing Township RCC, Shiqian County
Hua Wang	Director	Fengxiang Township Government
Jun Tan	Director	Fengxiang Township RCC, Shiqian County
Guoping Xie	Director	Zhongba Township RCC, Shiqian County
Yiding Wu	Credit Manager	Zhongba Township RCC, Shiqian County

### Yuping County

Jifei Wang	Director	PBoC Yuping Branch
Jingcheng Long	Deputy Director	PBoC Yuping Branch
Biao Huang	Division Head	PBoC Yuping Branch
Jinshu Luo	Director	Yuping County RCCU
Liang Yao	Deputy Director	Yuping County RCCU
Xiaolan Wu	Division Head	Yuping County RCCU
Yuanli Yao	Division Head	Yuping County RCCU
Guitao Huang	Division Head	Yuping County RCCU
Zhekun Yang	Director	Zhujiachang Township RCC, Yuping County
Hongwen Wu	Deputy Director	Zhujiachang Township RCC, Yuping County
Qiang Li	Credit Manager	Zhujiachang Township RCC, Yuping County
Xuefeng Peng	Credit Manager	Zhujiachang Township RCC, Yuping County
Yonglin Yang	Director	Tianping Township RCC, Yuping County
Xianmao Bai	Director	Shaoziao Village, Yayu Township, Yuping County
Changcheng Wu	Deputy Director	Shaoziao Village, Yayu Township, Yuping County
Xiantan Wu	Director	Guojiawan Village, Yayu Township, Yuping County
Yinglong Chen	Deputy Director	Guojiawan Village, Yayu Township, Yuping County