

Household Characteristics and Farm Household Borrowing Behavior : Evidence from the China Household Finance Survey (CHFS)

Tianzi Zhang

Research Scholar, Global Scholar Program, The Bolles School

Abstract: The development degree of the financial market is closely associated with household consumption and the economic development of rural areas. As a crucial component of household financial behavior, residents' borrowing behavior, especially among rural households, has attracted widespread attention. Using microdata from the China Household Finance Survey (CHFS) and employing Logit and Probit models, this study conducts an empirical analysis of the factors influencing rural households' borrowing behavior, including the characteristics of household heads and family circumstances. The results indicate that the individual characteristics of rural household heads exert a significant impact on the scale of borrowing and the choice of borrowing channels. Additionally, regional differences play a non-negligible role in shaping rural households' borrowing behavior.

Keywords: Household Individual Characteristics, Householder Personalities, Rural Family Borrowing, Logit Model, Probit Model.

I. INTRODUCTION

The 2014 Report on the Development of Rural Household Finance in China reveals that formal credit demand is exceptionally strong among most rural households in China. Among surveyed households, 19.6% expressed borrowing needs, primarily for production and business operations as well as home purchases. This demand is even more pronounced among low-income rural households. Furthermore, the report highlights that informal borrowing accounts for a substantial portion of rural household debt, reaching 64.6%. Regarding borrowing sources, farmers primarily borrow from siblings and other relatives and friends. This indicates that in China, where kinship ties and interpersonal relationships are valued, people—especially rural households—prefer borrowing from relatives. Simultaneously, borrowing behaviors often exhibit greater disparities among households with different characteristics. These differences become more pronounced with variations in borrowing amounts, age ranges, educational backgrounds, and geographic locations.

As one of the world's most significant developing economies, China's rural financial market is characterized by lagging credit market development and financial repression affecting rural households (Akoten et al., 2006). The persistent existence of these issues severely impacts rural households' ability to engage in productive and business activities, as well as their capacity to enhance income and welfare levels. The development and improvement of financial markets hold significant importance for rural economic growth. For impoverished rural areas, raising funds through credit constitutes one of the key means for farmers to increase their income (Jin Ye and Li Hongbin, 2009). Rural residents typically raise funds through credit channels, increasing their initial endowment of wealth. This allows them to allocate more resources and capital to production and business operations, expanding scale and creating further opportunities for income growth (Feder et al., 1990). Additionally, from the perspective of consumption smoothing and the permanent income hypothesis, households face greater borrowing needs during years of poor agricultural harvests (Duong & Izumida, 1990). Regarding borrowing channel selection, due to information asymmetry and transaction costs in

rural financial markets, the informal financial sector remains highly active (Tsai, 2004). Therefore, in-depth analysis of rural households' borrowing behavior and its influencing factors is essential, aiding our understanding of rural financial market characteristics and core financial activities.

II. LITERATURE REVIEW

Most scholars studying household borrowing behavior focus primarily on macroeconomic factors influencing household debt, such as national financial systems and interest rate adjustments. Connolly & McGregor (2011) conducted a longitudinal study tracking 7,500 Australian households over an extended period. They found that prior to 2005, household debt grew rapidly, attributable to low nominal interest rates and financial innovations in Australia. However, household debt growth slowed significantly after 2005. During the 2008–2009 economic crisis, widespread interest rate cuts prompted more households to plan repayments of mortgage loans and credit card debts, leading to a reduction in household liabilities. Strebkov (2005) utilized Russian household borrowing statistics from 2001–2003 to examine trends in Russian household debt.

Among domestic Chinese scholars' related research, due to greater focus on China's specific realities, studies generally emphasize analyzing rural household borrowing behavior, with a stronger emphasis on rural areas. Hu Feng and Chen Yuyu (2012) analyzed the impact of social networks on farmers' borrowing behavior using data from the 2010 China Family Panel Studies (CFPS). They found that social networks significantly and positively influenced both the likelihood and amount of borrowing among farmers, with social networks appearing to exert a greater influence on borrowing from formal financial institutions in rural areas. Zhong Chunping (2010) examined the extensive coverage of microfinance institutions in rural areas by analyzing their competitive advantages. He found that informal, small-scale credit providers penetrate rural regions more deeply, leveraging informational advantages. By utilizing collected information to implement locally tailored organizational and institutional arrangements, these institutions effectively circumvent credit quota restrictions imposed by formal lenders, thereby better meeting farmers' borrowing needs.

Although domestic research primarily focuses on rural household borrowing, most studies are limited to small-scale investigations. They lack geographical breadth and comprehensiveness, with samples lacking national representativeness. Furthermore, most analyses of factors influencing household borrowing behavior neglect the impact of the head of household's personal characteristics on the entire family's borrowing patterns.

The subsequent structure of this paper is as follows. Section III details the data sources and presents basic descriptive statistics. Section IV outlines the model variable selection and empirical framework. Section V analyzes empirical results, including whether rural households borrow and their choice between borrowing channels. The conclusion section follows.

III. DATA

The data utilized in this paper are sourced from the China Household Finance Survey (CHFS), a biennial longitudinal survey project administered by the China Household Finance Survey and Research Center at Southwestern University of Finance and Economics. To date, five rounds of survey data have been collected for the years 2011, 2013, 2015, 2017, and 2019, alongside one round of data from the China Micro and Small Enterprise Survey (CMES). The nationwide survey employs a stratified, three-stage, proportional-to-size (PPS) sampling method, with a sample size of 34,643 households. This paper utilizes data from the 2019 survey's rural sample, with the final valid dataset comprising 3,420 rural households.

The 2019 CHFS household questionnaire included information on rural household credit, covering borrowing channels (financial institutions, informal lenders, friends, relatives), specific loan amounts, and borrowing purposes. Among the surveyed rural households in the sample, 1,636 households had engaged in borrowing or lending activities. Of these, 445 households (approximately 27.20% of all borrowing households) utilized bank loans, while 1,557 households (a significant 95.17%) relied on informal financial channels, namely borrowing from relatives and friends. It is evident that the primary borrowing channels for rural households in China are informal financial institutions, with a strong preference for borrowing from relatives and friends.

Table 1 presents the demographic distribution of borrowing behaviors among the 3,420 surveyed rural households. Nationwide, rural household borrowing participation exceeds 50%, indicating that over half of rural households engage in borrowing activities. Among these households, borrowing primarily occurs through informal financial channels—specifically, borrowing from relatives and friends. Regarding age distribution, rural household borrowing participation shows a negative correlation with age: older households exhibit lower borrowing participation. Regarding educational attainment, households with higher-educated heads are less likely to borrow and exhibit lower reliance on borrowing from relatives and friends. Regionally, eastern regions show the lowest borrowing participation and a stronger preference for bank loans, while central and western regions favor borrowing from relatives and friends—a pattern closely tied to economic development levels and household income. Regarding household marital status, married households exhibit higher participation rates. Non-Party member households and non-ethnic minority households show higher borrowing participation, potentially reflecting China's demographic characteristics of fewer Party members and ethnic minority populations. By household head gender, male heads demonstrate higher borrowing participation and a greater tendency to choose bank loans. Additionally, household heads in better health are more likely to engage in borrowing activities.

Table 1 Demographic Distribution Characteristics of Rural Household Borrowing Behavior

		Family Loan		Family Loan From Bank		Loans from Relatives and Friends	
		Number	Proportion (%)	Number	Proportion (%)	Number	Proportion (%)
	Overall	1636	50.49	445	13.73	1557	48.06
Age of Primary Family Member	<30	58	3.55	13	2.92	52	3.34
	30-50	830	50.73	252	56.63	781	50.16
	50-70	675	41.26	161	36.18	654	42
	>70	73	4.46	19	4.27	70	4.5
Level of Education	Below elementary school level	843	51.53	171	38.43	819	52.6
	Junior High and High School (Vocational High School)	763	46.64	197	44.27	721	46.31
	Bachelor's degree or higher	30	1.83	77	17.3	17	1.09
	Married	1488	90.95	413	92.81	141	9.06
Marital Status	Single	148	9.05	32	7.19	1416	90.94
Political Affiliation	CPC member	117	7.15	57	12.81	105	6.74
	Non-CPC	1519	92.85	388	87.19	1452	93.26
Ethnicity	Han	1406	85.94	378	84.94	1335	85.74
	Minority	230	14.06	67	15.06	222	14.26
Gender	Male	1373	83.92	389	87.42	1306	83.88
	Female	263	16.08	56	12.58	251	16.12
Employed Status	Employed	1479	90.4	418	93.93	1406	90.3
	Non-employed	157	9.6	27	6.07	151	9.7
Health Status	Good	747	45.66	236	53.03	698	44.83
	Average	505	30.87	136	30.56	484	31.09
	Bad	384	23.47	73	16.4	375	24.08
Region	East	398	24.33	108	24.27	368	23.64
	Middle	640	39.12	99	22.25	623	40.01
	West	598	36.55	238	53.48	566	36.35
Household Size	<3	229	14	52	11.69	221	14.19
	3	301	18.4	83	18.65	283	18.18
	>3	1106	67.6	310	69.66	1053	67.63

IV. VARIABLE SELECTION AND MODEL SPECIFICATION

(I) Variable Selection

The objective of this paper is to examine the impact of household characteristics on farmers' borrowing behavior. More specifically, we will investigate how the individual characteristics of the household head and the overall household situation influence farmers' likelihood of borrowing and their choice of borrowing channels.

This paper will conduct an in-depth analysis of the following variables: 1. Borrowing behavior of farming households, denoted as *borrowing*, is a dummy variable: 1 if the household has borrowed, 0 otherwise; 2. Borrowing channels for households, including banking and nonbank borrowing, also a dummy variable with the same coding; 3. Age of the household head, denoted as *age*; 4. Household head's hukou status, denoted as *hukou*, a dummy variable where agricultural hukou is coded as 1; 5. Household head's educational attainment, categorized as below junior high school, junior/senior high school (vocational school) and below, or college (technical college) and above. Two dummy variables, *primary* and *high*, are introduced for analysis: 1 if the household head's education falls under either category, 0 otherwise; 6. Household head's ethnicity, denoted by *nation*, a dummy variable taking 1 for Han ethnicity and 0 for others; 7. Whether the household head is a Communist Party member, denoted by the dummy variable *party*, taking 1 if a member; 8. Household head's marital status, categorized as single or married, denoted by *married*, taking 1 if married; 9. Household head's gender, represented by the dummy variable *male*, takes a value of 1 if the head is male; 10. Whether the household head has employment, represented by *job*, takes a value of 1 if employed; 11. Household head's health status, categorized as good, ordinary, or poor, represented by the dummy variables *good* and *ordinary*, takes a value of 1 if applicable; 12. Household size, represented by *homesize*; 13. Household geographic location, categorized as eastern, central, or western regions. Introduce dummy variables *east* and *middle*. Assign a value of 1 corresponding to the region where the rural household is located; 14. Whether the household engages in agricultural production, represented by the dummy variable *agriculture*. Assign a value of 1 if engaged; 15. Number of household members engaged in agriculture, represented by *agr-number*; 16. Whether the household engages in industrial or commercial production and management, represented by the dummy variable *manage*. Assign a value of 1 if engaged; 17. Household home ownership, denoted by *house possess*, valued at 1 if owned; 18. Household car ownership, denoted by *car possess*, valued at 1 if owned; 19. Household other assets, denoted by *other asset*, valued at 1 if owned; 20. Household land ownership, denoted by *land*, valued at 1 if owned; 21. Total household loan amount, denoted by *amount*, representing a more direct factor influencing household borrowing.

(II) Model Specification

Since all dependent variables in this study are categorical, we will employ Logit and Probit models for empirical analysis. The basic econometric regression model is as follows:

Model Specification Given that all dependent variables in this study are categorical, Logit and Probit models will be employed for empirical analysis. The basic econometric regression model is as follows:

$$borrowing = a_0 + AX + u_1 \quad (1)$$

$$banking = b_0 + BX + u_2 \quad (2)$$

$$nonbank = c_0 + CX + u_3 \quad (3)$$

Equation (1) tests whether rural households have loans; Equations (2) and (3) build upon Equation (1) to further analyze borrowing channels for rural households with loans. X denotes the column vector of explanatory variables, A , B , and C represent the coefficient row vectors, a_0 , b_0 , c_0 are the constant terms, u_1 , u_2 , u_3 are the residual terms.

V. EMPIRICAL RESULTS ANALYSIS

This study initially employed whether farmers engaged in borrowing as the dependent variable, utilizing Logit and Probit analyses. The initial sample comprised 3,240 observations. After removing missing values, 3,209 observations were retained for regression analysis. Among these 3,209 households, those who borrowed were selected for regression analysis of their chosen borrowing channels, yielding 1,616 samples. Employing different dependent variables and both Logit and Probit regression methods ensures the robustness of the empirical findings.

(I) Research on Whether Households Engage in Borrowing

Table 2 presents the regression analysis results on how individual household characteristics influence borrowing behavior. Both models indicate that the household head's household registration status and gender have little effect on borrowing propensity. Conversely, the head's age exerts a significant negative influence: empirical evidence shows that for every additional year of the head's age, the probability of household borrowing decreases by 0.4% and 0.6%, respectively. This can be attributed to the fact that the head's age indirectly reflects the household's age structure. As the head ages, the household's risk aversion increases. On average, farmers over 50 are less likely to engage in borrowing activities. Additionally, the head's ethnicity and party membership status show no significant impact on rural household borrowing behavior. This does not contradict Table 1, which reflects the political affiliation and ethnic distribution of household heads in borrowing households. Regarding the head's educational attainment, lower levels correlate with higher borrowing likelihood. This aligns with Table 1, where households with less educated heads exhibit greater borrowing participation. This stems from the close link between educational attainment and income, as well as education's significant influence on risk awareness and household values. Higher education exerts a stronger restraint on borrowing, with marginal effects in the model reaching 37.6% and 36.7%, respectively. Regarding the head's marital status, employment status, and whether the household engages in agricultural production, no significant correlations were observed. This relates to rural families' views on marriage and primary income sources. Households prioritize marriage and rely mainly on agriculture, making these factors less influential on borrowing decisions. The health status of the household head directly and significantly impacts the likelihood of borrowing. The poorer the health of the head, the lower the probability of the rural household obtaining a loan. This aligns with Table 1, which shows that households with heads in poorer health have lower borrowing participation rates. This occurs because poorer health among household members introduces greater future uncertainty, leading households to avoid borrowing whenever possible in their decision-making. The size of the loan amount significantly influences the likelihood of borrowing, exhibiting a positive relationship. Regarding

overall household characteristics, rural households with more labor force participating in agricultural production are more likely to borrow. Agricultural production is the primary economic activity in rural areas, heavily influenced by climate and natural disasters, characterized by high uncertainty and low output value. Given the generally poor overall economic conditions of these households, borrowing becomes more probable. Household size exerts a significant positive influence on borrowing behavior, with marginal effects reaching 2.1% and 4.6%, respectively. This indicates that an increase in household population size boosts consumption and expenditures, heightening demand for potential liquidity and thereby increasing farmers' propensity to borrow. Conversely, factors such as whether households own housing, other assets, vehicles, land, or engage in industrial and commercial production and operations have no discernible impact on the likelihood of farmers borrowing. The geographical location of the household significantly influences borrowing likelihood, exhibiting a pronounced negative effect. The marginal effect of borrowing avoidance is stronger in eastern regions, consistent with Table 1.

(II) Research on Whether Rural Households Have Bank Loans and Non-Bank Borrowing Activities

Tables 3 and 4 present the regression results for whether rural households have bank loans and non-bank borrowing, respectively. It is evident that the household head's household registration status and gender do not significantly influence borrowing methods. The household head's age exerts a restraining effect on both borrowing methods. While the age of the household head did not pass the significance test for its impact on whether households have bank loans, it has a certain negative effect on households borrowing through non-bank channels, with marginal effects of 0.07% and 0.08%, respectively. The household head's ethnicity and marital status do not significantly affect rural households' choice of borrowing channels.

Regarding educational attainment, higher education levels significantly reduce the likelihood of bank borrowing, while lower education levels increase the preference for borrowing from relatives and friends. Conversely, higher education levels also increase the probability of obtaining bank loans. For household head political affiliation, being a Communist Party member significantly increases the likelihood of bank borrowing, likely due to the higher quality and personal creditworthiness associated with Party membership. However, Party membership does not significantly influence the choice of non-bank borrowing. The head of household's health status significantly influences whether rural households obtain bank loans, but this effect did not pass the significance test for non-bank loans. This is because bank loan approvals necessarily require borrowers to meet health criteria, whereas borrowing from relatives and friends is more heavily influenced by the closeness of the relationship and social status.

Table 2: Regression Analysis Results on Whether Rural Households Borrow Money

Dependent variable Explanatory Variable	Dependent Variable: Whether the household has a loan, take 1; otherwise take 0					
	Logit Model			Probit Model		
	Coefficient	Z Value	Marginal Effect	Coefficient	Z Value	Marginal Effect
Hukou	-0.164	-0.83	-0.036	-0.076	-0.73	-0.030
Male	0.028	0.23	0.006	-0.014	-0.2	-0.005
Age	-0.020***	-5.03	-0.004	-0.015***	-7.02	-0.006
Nation	-0.161	-1.15	-0.035	-0.088	-1.13	-0.035
Primary	-0.551***	-2.16	-0.017	-0.457***	-2.23	-0.021
High	-1.584***	-3.08	-0.376	-1.426**	-3.23	-0.367
Party	-0.274	-1.64	-0.062	-0.286	-1.58	-0.074
Married	-0.100	-0.64	-0.022	0.009	0.1	0.003
Job	-0.059	-0.37	-0.013	-0.08	-0.91	-0.032
Good	-0.865***	-7.15	-0.188	-0.875***	-8.25	-0.226
Ordinary	-0.606***	-4.91	-0.138	-0.585***	-5.4	-0.153
Amount	0.000***	18.50	1.220E-05	0.000***	28.86	2.820E-06
Home-size	0.123***	4.28	0.027	0.114***	7.09	0.046
Agriculture	0.072	0.42	0.016	0.015	0.16	0.006
Agr-number	0.122**	2.00	0.027	0.127**	2.2	0.030
Manage	-0.572	-1.34	-0.034	-0.087	-1.01	-0.035
House possess	0.340	1.41	0.079	0.465	1.44	0.081
Car possess	-0.564	-0.66	-0.133	0.570	0.69	0.028
Other asset	-0.072	-0.70	-0.016	0.017	0.29	0.007
Land	0.283	1.46	0.064	0.173*	1.71	0.066
East	-0.451***	-3.77	-0.102	-0.390***	-5.88	-0.154
Middle	-0.253**	-2.41	-0.086	-0.216***	-3.62	-0.086
_cons	-1.158	-1.54	—	-1.166	-1.19	—
Pseudo R2		0.353			0.203	
LR chi2	1567.99(Prob > chi2 = 0.0000)			904.91(Prob > chi2 = 0.0000)		
Log likelihood	-1440.234			-1771.771		
Sample size	3209			3209		

Note: ***, **, and * denote significance at the 1%, 5%, and 10% significance levels, respectively. Pseudo R² is the pseudo-R-squared

Table 3: Regression Analysis Results for Rural Household Borrowing Channels (Part 1)

Dependent Variable Explanatory Variable	Loan source: Bank Loan, select 1; otherwise select 0					
	Logit Model			Probit Model		
	Coefficient	Z Value	Marginal Effect	Coefficient	Z Value	Marginal Effect
Hukou	0.037	0.13	0.006	0.0114	0.07	0.0033
Male	0.263	1.37	0.042	0.14	1.3	0.0396
Age	-0.009	-1.41	-0.001	-0.00444	-1.26	-0.0013
Nation	0.034	0.17	0.006	0.0193	0.17	0.0056
Primary	-0.529***	-2.03	-0.0351	-0.268***	-2.31	-0.0362
High	-1.446***	-2.82	-0.319	-0.926***	-2.98	-0.3382
Party	0.676***	2.94	0.131	0.384***	2.79	0.1260
Married	0.210	0.77	0.033	0.111	0.74	0.0313
Job	0.538	1.05	0.079	0.306	1.05	0.0808
Good	-0.591***	-3.22	0.010	-0.342***	-3.29	-0.1014
Ordinary	-0.382**	-2.05	0.066	-0.226**	-2.16	-0.0684
amount	3.59e-06***	4.85	5.980E-07	1.97e-06***	5.47	5.78E-07
Home-size	0.0862**	2.15	0.014	0.0495**	2.12	0.0145
Agriculture	-0.157	-0.64	-0.027	-0.0762	-0.54	-0.0228
Agr-number	0.028	0.34	0.005	0.0106	0.22	0.0031
Manage	0.254	1.25	0.045	0.144	1.21	0.0440
House possess	1.495**	2.23	0.158	0.723**	2.28	0.1534
Car possess	0.263	1.17	0.047	0.175	1.32	0.0543
Other asset	0.042	0.28	0.007	0.0256	0.3	0.0075
Land	0.059	0.2	0.010	0.0273	0.16	0.0080
East	-0.885***	-5.1	-0.129	-0.523***	-5.19	-0.1368
Middle	-1.373***	-8.74	-0.210	-0.784***	-8.88	-0.2133
_cons	-2.192	-2.03	—	-1.050*	-1.75	—
Pseudo R2	0.1214			0.1201		
LR chi2	251.92(Prob > chi2 = 0.0000)			213.75(Prob > chi2 = 0.0000)		
Log likelihood		-781.621			-782.703	
Sample size		1616			1616	

Note: ***, **, and * denote significance at the 1%, 5%, and 10% significance levels, respectively. Pseudo R² is the pseudo-R-squared.

Table 4: Regression Analysis Results for Rural Household Borrowing Channels (Part II)

Dependent Variable Explanatory Variable	Loan Source: Non-bank loan, select 1; otherwise select 0					
	Logit Model			Probit Model		
	Coefficient	Z Value	Marginal Effect	Coefficient	Z Value	Marginal Effect
Hukou	0.0644	0.12	0.0022	0.0824	0.31	0.0065
Male	-0.268	-0.73	-0.0083	-0.143	-0.81	-0.0102
Age	0.0208*	1.67	0.0007	0.0102*	1.77	0.0008
Nation	-0.529	-1.24	-0.0149	-0.245	-1.24	-0.0163
Primary	-0.094***	-2.89	-0.1201	-0.089***	-2.61	-0.1057
High	-1.828***	-2.94	-0.1447	1.095***	-3.2	-0.1990
Party	-0.575	-1.46	-0.0245	-0.282	-1.42	-0.0274
Married	0.239	0.51	0.0088	0.164	0.76	0.0146
Job	-0.491	-0.99	-0.0138	-0.265	-1.1	-0.0171
Good	-0.701	-1.64	-0.0247	-0.301	-1.6	-0.0244
Ordinary	-0.304	-0.72	-0.0108	-0.117	-0.64	-0.0095
Amount	1.50E-07	0.19	5.05E-09	1.42E-07	0.32	1.12E-08
Home-size	0.0127	0.15	0.0004	0.00291	0.07	0.0002
Agriculture	0.609	1.24	0.0244	0.302	1.32	0.0279
Agr-number	0.00896	0.05	0.0003	0.00214	0.03	0.0002
Manage	-0.117	-0.33	-0.0041	-0.0764	-0.44	-0.0063
House possess	0.285	1.23	0.0340	0.267	1.09	0.0362
Car possess	-1.041***	-3.15	-0.0534	-0.541***	-3.18	-0.0629
Other asset	0.118	0.42	0.0041	0.0678	0.51	0.0054
Land	0.145	0.33	0.0051	0.0871	0.38	0.0073
East	0.251**	2.78	0.0080	0.229**	2.83	0.0095
Middle	0.664**	2.04	0.0212	0.316**	2.15	0.0235
_cons	0.779	0.49	—	0.252	0.32	—
Pseudo R2		0.1415			0.1423	
LR chi2	188.82(Prob > chi2 = 0.0000)			189.30(Prob > chi2 = 0.0000)		
Log likelihood	-269.350			-269.170		
Sample size	1616			1616		

Note: ***, **, and * denote significance at the 1%, 5%, and 10% significance levels, respectively. Pseudo R² represents the pseudo R².

The amount borrowed by rural households significantly impacts bank loans but has little effect on non-bank borrowing. This may be largely related to banks' lending capacity: the greater the borrowing need, the more likely farmers are to choose bank loans, as banks' lending capacity far exceeds that of borrowing from relatives and friends. Household size significantly influences the choice of bank loans but has no significant effect on borrowing from relatives and friends. Larger households with more complex compositions—likely due to having more children in rural China—face substantial expenses like education costs, which are often covered by student loans. Consequently, household size significantly impacts the preference for bank loans.

Whether a rural household engages in farming, the number of family members involved in farming, whether they operate a business, and whether they own land or other assets show no significant impact on either borrowing method. Additionally, household homeownership shows no significant effect on choosing non-bank loans but significantly influences bank loan selection, reflecting rural households' asset profiles and mortgage requirements. Conversely, car ownership has the opposite effect on borrowing choices: it inhibits borrowing from relatives and friends. This stems partly from higher wealth levels and partly from the Chinese concept of “face”—households owning cars are less likely to borrow from relatives and friends.

Finally, regionally, eastern rural households show a stronger preference for bank loans, while central region households favor non-bank channels like borrowing from relatives and friends—both findings passing significance tests. Eastern households exhibit reduced avoidance of bank loans, while the marginal utility of borrowing from relatives and friends for central region households reaches 2.12% and 2.35%, respectively.

VI. CONCLUSIONS AND IMPLICATIONS

The findings of this study yield the following insights: (I) Overall, rural households in China exhibit low borrowing participation rates and limited activity in financial markets. Furthermore, among the farmer samples examined, households rarely or almost never held financial assets such as stocks, futures, or bonds. This suggests that promoting financial literacy should be prioritized when advancing rural financial market reforms. (II) The age of the household head significantly influences borrowing behavior. Financial institutions should consider targeting young and middle-aged rural households as primary clients, as these families exhibit stronger borrowing intentions and engage in more credit activities. Introducing appropriate incentive measures through relevant departments or policies could further stimulate and enhance their borrowing willingness. (III) The health status of the household head significantly influences borrowing behavior. Regardless of perspective, the head's health profoundly affects whether a household borrows and the amount borrowed. Therefore, relevant rural departments should establish robust health protection measures, such as improving rural medical insurance and actively increasing physician coverage. (IV) The geographical location of a household also influences borrowing behavior. Significant regional differences exist in rural borrowing patterns, with distinct variations in borrowing decisions and methods among households in eastern, central, and western China. (V) The head of household's educational attainment significantly and positively influences the likelihood of participating in bank-based financial borrowing. Given the generally low educational levels among rural households, they may be more inclined to borrow from relatives and friends when selecting borrowing channels. It is evident that enhancing farmers' educational attainment holds significant importance for improving rural household borrowing structures and the rural financial market.

The conclusions presented herein are based on a sample survey analysis of rural households across 25 provinces, municipalities, and autonomous regions nationwide. This study differs from previous research by examining the impact of individual characteristics such as the head of household's health status and the household's geographic location on rural borrowing. However, due to the relatively small overall sample size,

and the inherent uniqueness of each household, it is challenging to examine rural household borrowing behavior from all angles. Furthermore, the study involves limited coverage of informal lending channels in rural areas, and research on the duration of rural households' loan needs and the extent to which loan objectives are achieved requires further strengthening. Furthermore, this study considers household borrowing behavior solely through the lens of household head and overall household characteristics, excluding many other household-related factors. Future research on household borrowing behavior could expand sample sources, refine indicator systems, incorporate time-series tracking surveys, and include macroeconomic variables to analyze the impact of corresponding economic policies on household borrowing behavior.

REFERENCES

- [1]. Jin Ye, Li Hongbin. (2009). Informal Finance and Farm Household Borrowing Behavior. *Journal of Finance Research*, No.4.
- [2]. Gan Li. (2014). China Rural Household Finance Development Report 2014.
- [3]. Liu Xiaoxin, Zhou Hong. (2012). The Impact of Household Characteristics on Borrowing Behavior: Empirical Evidence from Chinese Households. *Journal of Finance and Banking*, No. 1.
- [4]. Bai Yongxiu, Ma Xiaoyong. (2010). The Effect of Farmer Characteristics on Credit Constraints: Empirical Evidence from Shaanxi. *China Soft Science*, No. 9.
- [5]. Hu Feng, Chen Yuyu. (2012). Social Networks and Farm Household Borrowing Behavior: Evidence from the China Family Panel Studies (CFPS). *Journal of Finance and Banking*, No. 12.
- [6]. Zhong Chunping, Sun Huamin, Xu Changsheng. (2010). Farm Household Borrowing Channel Selection Behavior: An Empirical Study in Rural China. *Chinese Journal of Agricultural Economics*, No. 3.
- [7]. Aoten John E, Sawada Yasuyuki and Otsuka keijiro (2006). The Determinants of Credit Access and Its Impacts on Micro and Small Enterprises: The Case of Garment Producers in Kenya. *Economic Development and Cultural Change*. Volume 54, Issue 4 . 2006. PP 927-944
- [8]. Connolly E, McGregor D. (2011). Household Borrowing Behaviour: Evidence from HILDA. Reserve Bank of Australia (RBA) Bulletin, March, pp.9 - 14.
- [9]. Strebkov D. (2005). Household borrowing behavior in Russia. *Problems of Economic Transit*