



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

Regional Differences of Rural Financial Exclusion
——in Gansu and Jiangsu Province

Yuying Zhao

Department of Agricultural Economics

University of Arkansas

yz038@uark.edu

Selected Paper prepared for presentation at the Southern Agricultural Economics Association's 2016 Annual Meeting, San Antonio, Texas. February 6-9, 2016.

Copyright 2016 by Yuying Zhao. All rights reserved. Readers may verbatim copies of this document for non-commercial purposes by any means, provided this copyright notice appears on all such copies.

Abstract

At present, China is facing a serious problem of financial exclusion in rural areas, which restricts the development of rural economy and even the comprehensive, balanced and sustainable development of the overall real economy. From the perspective of regional differences in Gansu and Jiangsu provinces and between these two provinces, this paper establishes the Index of Rural Financial Exclusion, and explores the relationship between the refined indicators. Combining the economic theory, this paper uses double logarithmic models to analyze empirically on the relationship between the balance of loans per person and two factors: the density of branches with respect to population and GDP per capita and then compares these two models. We use this model to discuss the driving factor that can help to alleviate rural financial exclusion in different regions.

In this paper, comparative analysis, theoretical analysis, empirical analysis, qualitative analysis and quantitative analysis are methods used to analyze the statistical data issued by the China Banking Regulatory Commission. This paper integrates the analyses of rural financial exclusion in provinces and between provinces, and comes to these conclusions about the rural financial exclusion problem of Gansu Province and Jiangsu Province in micro and macro level: (1) the forms of rural financial difference between areas are diverse. The degree of financial exclusion in Gansu are higher than that in Jiangsu, (2) the policy-related loans issued in Gansu are effective, (3) deposits absorbed in areas that are highly financial excluded flow to the regions facing relatively slighter exclusion. The capital allocation function of rural financial markets in Gansu should be improved, (4) two indicators, balance of loans per capita and the number of financial institution branches per 10,000 populations, are positively related. If the number of financial institutions branches in Gansu Province is increased, the balance of credit per capita will be increased, further, it will alleviate rural financial exclusion effectively.

Key words: Rural finance, Financial exclusion, Regional differences, Double logarithmic model

Introduction

Since 2004, Chinese central government has issued twelve No. 1 Central Documents, each as the first policy document of each year, stressing the importance of agriculture and rural reforms, known as “*San-nong*” policies. “*San-nong*” is a Chinese term put forward by Wen (1996) with the meaning of a combination of agricultural, rural areas and farmers. Policies related to these three rural issues have been the top priority of Chinese government. The rural finance is a significant component of “*San-nong*” policies. However, rural finance is a weak section throughout the whole financial service system, containing problems such as inefficiency, imbalance between capital supply and demand, etc. Now China is facing serious financial exclusion in rural areas, and there are mutual inhibition "Matthew Effect" between the rural economy and rural finance. So if rural financial problems cannot be resolved, it will restrict the development of rural economy and even the overall development of real economy. To solve this, rural financial reforms have been launched, hoping financial exclusion can be eased. In recent No.1 Central Documents, directions such as speeding up innovation of rural financial system and pushing forward rural financial reforms have been pointed out. A more accessible rural financial system as a goal, is considered positively related to the development of agriculture industry, farmers' income improvement, rural economic growth, and many other key issues in rural areas.

Financial exclusion measures the development of the inclusive financial system from an opposite side, and an inclusive financial system is one of the aims of China's rural financial reforms. Studies focusing on financial exclusion in China can provide theoretical basis and practical guidance to China's rural financial reforms. While the economies in rural areas differ significantly across regions, financial exclusion may show different patterns in different regions. Among all provinces and autonomous regions, Gansu, a province located in western China, is

underdeveloped, and ranked the 27th in terms of competitiveness of agriculture; Jiangsu, a province located in eastern costal area, is more developed, and ranked the 3rd in terms of competitiveness of agriculture (Qi, 2007). So Gansu and Jiangsu are representative with respect to both agricultural and overall economic development, and they can represent less developed and more developed provinces, respectively. Taking these two provinces as examples to study rural financial exclusion may well reflect the regional differences of rural financial exclusion.

The ideology of financial exclusion first appeared in Mckinnon's and Shaw's theory of financial repression, but the study of financial exclusion really began in the early 1990s (Leyshon & Thrift, 1993). There is no standard definition of financial exclusion, but the basic content is certain: some customers are unable to obtain necessary financial services through appropriate channels (Panigyrakis et al., 2002). Financial exclusion is a dynamic compound concept, including following five dimensions of factors: access (geographical) exclusion, condition exclusion, price exclusion, marketing exclusion and self-exclusion (Kempson & Whyley, 1999) this classification method was later accepted by most scholars. But subsequent studies have also pointed out the shortcomings of the method: overlapping among dimensions and measuring difficulties. Financial Services Authority (FSA) (2000) noted that the existence of financial exclusion would have serious impact on regional economy. In areas which are highly-financial excluded, financial exclusion will lead to problems such as stagnant economy, poverty, unequal income distribution, seriously affecting regional development and stability (Leyshon & Thrift, 1995). Scholars also investigated in factors that can cause financial exclusion, such as Kempson & Whyley (1999) believe that the financial exclusion is related to income, language, culture, ethnicity, religion, age and other factors, such as geographical location, marketing strategy and legislation, etc. World Bank (2008a; 2008b) illustrated that income, social class and transaction costs played a leading role in the resulting

financial exclusion, using a sample of 54 countries.

In the aspects of regional differences in financial exclusion and depicting the extent of exclusion, Devlin (2005) conducted his research from the aspect of regional differences of financial exclusion, and proved that the development level of regional finance residents can significantly impact financial exclusion. Studies have confirmed the existence of financial institutions branches can effectively alleviate financial exclusion (Dymski & Veitch, 1996). Although branches are not the only way to provide financial services, it does have a close link between the size of financial branches' network and the availability of financial services. Leyshon et al. (2006) pointed out that the existence of financial institution branches can reduce the information asymmetry between institutions and clients, and improve the degree of mutual trust, while maintaining the cost for the poor to access appropriate financial services at a certain level. Due to multidimensional property of financial exclusion, scholars have been exploring a more accurate way to measure the extent of financial exclusion. Southeast England Development Agency (SEEDA) used a large amount of first-hand and second-hand data to calculate the Index of Multiple Deprivation which has highly positive correlation with financial exclusion. Beck et al. (2007) proposed eight financial indicators to measure inclusiveness of finance: the number of financial institution branches per 10 thousand population, the number of financial institution branches per 100 square kilometers, the number of ATMs per 10 thousand population, the number of ATMs per 100 square kilometers, savings per capita/GDP per capita; loans per capita/ GDP per capita, the number of savings account per thousand population, the number of loans account per thousand population. An Index of Financial Inclusion (IFI) was developed by Sarma (2008) to measure the extent of comprehensive financial inclusion of a region, including the following three dimensions: the depth of financial services, the availability of financial services and the usage of

financial services. Their IFI simplify all the dimensions of financial inclusion to an index to measure the specific circumstances of financial exclusion in a particular area.

Data and Methodology

Methodology

Developing an Index of Rural Financial Exclusion (IRFE)

Beck et al. (2007) first proposed eight financial indicators to measure inclusiveness of finance, but how to select the appropriate indicators to represent the financial inclusion with a comprehensive index for empirical analysis has become the topic to be explored by scholars. Sarma (2008) proposed the Index of Financial Inclusion (IFI), referring to the calculation method of Human Development Index (HDI), created by United Nations Development Program (UNDP). Chinese scholars Tian & Tao (2011) adopted Sarma's ideas, and put five indicators into the three dimensions to construct financial inclusion index on the county level. Their indicators penetration of banking institutions in terms of population and geography, the amount of savings and loans per capita and the population who have access to financial.

This paper takes the actual data we got into consideration, and combines with the existing literatures, proposing four dimensions of financial exclusion: Financing depth, Financing penetration (as much users as possible), Availability of financial services and the Usage of financial services. Since current financial services in Chinese rural areas mainly consist of deposits and loans, deposits and loans services reflect the status of rural financial exclusion. Besides, deposits and loans promote the development of rural economy. So loans and deposits are the representation of rural financial services. The main target of rural financial services are households and enterprises, the penetration of rural finance can be reflected by their access to financial services.

The extent to which a regional financial services are available can be manifested through the density of branches and employees. The degree of rural financial services usage can be represented by the loans or deposits as a share of GDP. A total of ten specific indicators are selected to build financial exclusion index system. The calculation methods of specific indicators are shown below.

Table 1: The system of Index of Rural Financial Exclusion

Dimensions	Indicators	Calculation method
Financing depth	Balance of deposits per capita	Balance of deposits/Total population (at the year-end)
	Balance of credits per capita	Balance of Credits/Total population (at the year-end)
Financing penetration (as much users as possible)	Proportion of township and village enterprises which obtained loans	Enterprises that obtained loans/Total amount of enterprises
	Proportion of households who got loans	Households that received loans/Total amount of households
Availability of financial services	Number of financial institution branches per 10,000 population	Number of financial institution branches/Total population*10,000
	Number of employees in financial institutions per 10,000 population	Number of employees in financial institutions/Total population*10,000
	Number of financial institution branches per 10,000 km ²	Number of financial institution branches/Total area*10,000
	Number of employees in financial institutions per 10,000 km ²	Number of employees in financial institutions/Total area*10,000
Usage of financial services	The volume of credits as proportion of local GDP	Balance of deposits/GDP
	The volume of deposits as proportion of local GDP	Balance of credits/GDP

The ten indicators in four dimensions depict different aspects of rural financial exclusion, any single indicator or dimension cannot fully reflect the multi-dimensional, complex nature of the extent of financial exclusion. This paper intends to build Index of Rural Financial Exclusion (IRFE) to accommodate a wide range of financial exclusion information, thus to measure the extent of rural financial exclusion comprehensively. This study also adapts Sarma's calculation method, shown as Equation (1).

$$IRFE = \frac{\sqrt{(w_1 - D_1)^2 + (w_2 - D_2)^2 + \dots + (w_n - D_n)^2}}{\sqrt{w_1^2 + w_2^2 + \dots + w_n^2}} \quad (1)$$

Since the IRFE constructed in this paper is a relative value, so coefficient of variance method is used to give weight to each indicators.

First, to calculate coefficient of variance

$$CV_i = \frac{S_i}{\overline{X_i}} \quad i = 1, 2, \dots, n \quad (2)$$

CV_i represents the coefficient of variance of each indicator, S_i represents the standard deviation of each indicator, $\overline{X_i}$ stands for the mean of each indicator. After the calculation of CV_i , the weight w of each indicator is calculated as Equation (3).

$$w_i = \frac{CV_i}{\sum_{i=1}^n CV_i} \quad i = 1, 2, \dots, n \quad (3)$$

Suppose there are n Dimensions D in the index system, and w is the weight of each indicator, standing for the importance of that indicator towards the IRFE. The value of each dimension is shown as Equation (4).

$$D_n = w_n \frac{X_n - m_n}{M_n - m_n} \quad (4)$$

In Equation (4), D_n stands for the achievement this region gets in this dimension. w_n is the weight of Dimension n , which is set as $0 \leq w_n \leq 1$. The larger w_n is, the more important this dimension means to the measurement of financial exclusion. X_n stands for the actual value of Dimension n , M_n represents the Maximum of all X_n in Dimension n , m_n represents the Minimum of all X_n in Dimension n . The larger D_n is, the higher achievement this region gets in

this dimension, the lower extent of financial exclusion this region has.

From the process of calculation, we know that $0 \leq D_n \leq w_n$. So the IRFE calculated by Equation (1) ranges from 0 to 1 ($0 \leq \text{IRFE} \leq 1$). The larger IRFE is, the higher extent of financial exclusion this region has.

Theoretical analysis: Revaluation and refining of indicators

First, the relevant indicators of loans more accurately reflect the current situation of financial exclusion studied in this paper. In reality, the main obstacle in China's rural financial exclusion problem is the difficulties in obtaining loans, mainly for households and enterprises, thereby affecting the development of rural economy. It is loans that stimulating production and investment in rural areas, so the volume of loan is an important factor. More importantly, financial institutions in less developed regions are more motivated to absorb deposits than lending loans, and deposits can flow out from local financial institutions to other provinces.

Second, current data in the Dimension of Financing penetration are not accurate. Because there are many informal finance services which are not taken into consideration in official data, the data we use. As a result, there are outliers in the sample.

Third, in Gansu, where the nature condition is small population on a large area, the density of population and economic activity are low, the geographical density is not as effective as density with respect to population. What's more, "branch number" and "employee number" are positively related. In conclusion, we can summarize the ten indicators into three:

1. the balance of loans per capita
2. the number of financial institution branches per 10,000 population
3. the volume of loans as proportion of local GDP

Econometrical analysis: Factors alleviating rural financial exclusion

In order to investigate the driving factor that can help to alleviate rural financial exclusion in different regions, this analysis selected the natural log of the balance of loans per capita ($\ln al$) as the dependent variable, as a representative of the extent of a regional financial exclusion indicators, and chose the natural log of the demographical density of financial institution branches ($\ln bpd$) and the natural log of GDP per capita ($\ln agdp$) as two independent variables to be as proxies of demographical density of financial institution branches and the level of the development of economy.

Data in this sample are cross-sectional data, in order to reduce the magnitude of data and changes in endogenous variables, eliminate the influence of heteroskedasticity. The natural logarithm of each variable is taken.

Table 2: Definition of variables

Variables	Definition
$\ln al$	the natural log of the balance of loans per capita
$\ln bpd$	the natural log of the demographical density of financial institution branches
$\ln agdp$	the natural log of GDP per capita

The double logarithmic model is shown as below. We run this model separately with the sample of Gansu and the sample of Jiangsu to obtain two models. These models are to be discussed to find the driving factor that can help to alleviate rural financial exclusion in different regions.

$$\ln al = \beta_0 + \beta_1 \ln bpd + \beta_2 \ln agdp + \varepsilon$$

Data

Since related statistics indicators and data sources are not complete in recent years, our study uses data of the year 2010. The data used in this paper are mainly from the China Banking

Rural Financial Institutions Service Atlas (2011), issued by China Banking Regulatory Commission (CBRC) and China County (City) Social Economic Statistical Yearbook (2011) and China Statistical Yearbook for Regional Economy (2011).

In 2010, there are 69 and 50 counties (including county-level cities) in Gansu and Jiangsu Province, respectively. Since there is a data outlier, Kangle County, Gansu, excluded from the sample, our data set has 118 sample counties in total.

Table 3: Data Sources

Region	Number of counties	Sources
Gansu	68	China Banking Regulatory Commission, China Banking Rural Financial Institutions Service Atlas, China County Social Economic Statistical Yearbook, China Statistical Yearbook for Regional Economy
Jiangsu	50	

Results

Result of Rural Financial Exclusion Comparison in Provinces

Using data of 68 counties in Gansu, the IRFE of each county is calculated as stated. The full list of the values of IRFE are in Table 1 in the Appendix. The average of IRFE in Gansu is 0.9561, which is very large and close to 1, and this value means that the extent of rural financial exclusion in Gansu is very high, consumers are seriously excluded from financial services.

In order to more directly show the difference of financial exclusion among counties in Gansu, the map of Gansu is colored from light green to heavy green as the value of IRFE increases. The IRFE values are divided into 4 segments: $IRFE < 0.9562$, $0.9562 < IRFE < 0.9674$, $0.9674 < IRFE < 0.975$, $IRFE > 0.975$, to make sure that under each segment the same number counties are the same. So as the color of areas change from shallow to deep, it indicates that the relative degree of rural financial exclusion change from light to heavy. Whereas, white areas represent no data, so they maybe urban

areas that are not within the scope of this study. Observing the map, we can find the distribution of highly excluded area is dispersed, no pattern has been found.

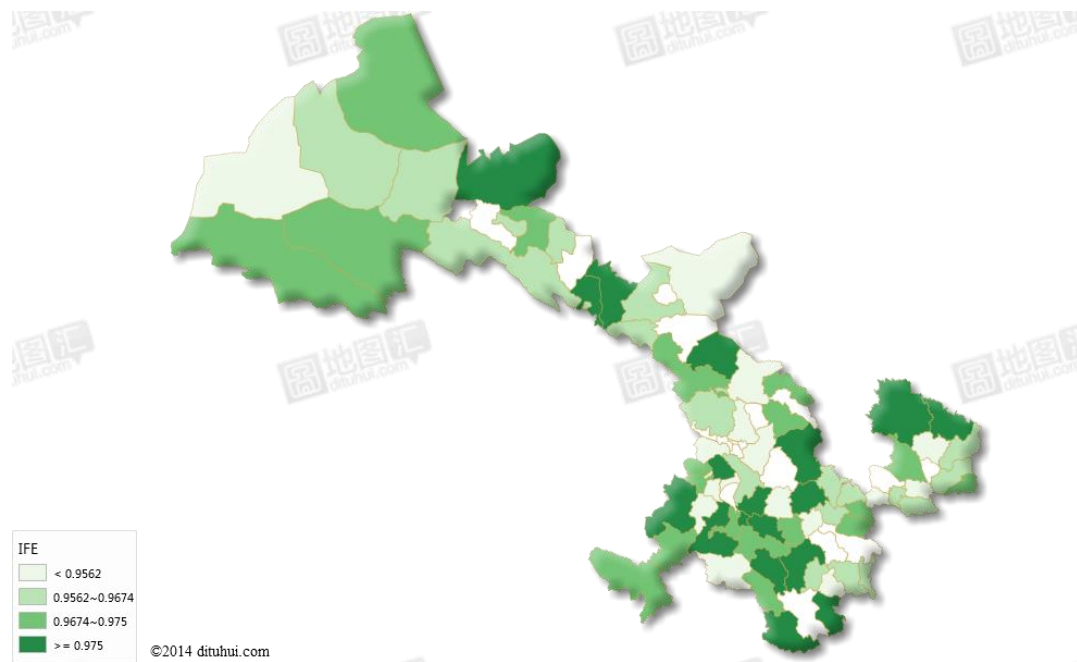


Figure 1: The extent of financial exclusion in counties in Gansu

Using data of 50 counties in Gansu, the IRFE of each county is calculated as above. The full list of the values of IRFE are in Table 2 in the Appendix. The average of IRFE in Jiangsu is 0.8488, which is lower than that of Gansu, which means that the extent of rural financial exclusion in Jiangsu is lower than Gansu, consumers have better access to financial services.

We apply similar method to paint the map of Jiangsu to show the properties of IRFE. The map of Jiangsu is colored from light green to heavy green as the value of IRFE increases. The IRFE values are divided into 4 segments: $IRFE < 0.8099$, $0.8099 < IRFE < 0.9031$, $0.9031 < IRFE < 0.9351$, $IRFE \geq 0.9351$ to make sure that under each segment the same number of counties are the same. As the color of areas change from shallow to deep, the relative degree of rural financial exclusion change from light to heavy. The pattern of financial exclusion in Jiangsu is easy to observe, counties that are relatively highly excluded from financial services are all

concentrated in the north part of Jiangsu where the economy is not as developed as the south part of the province.

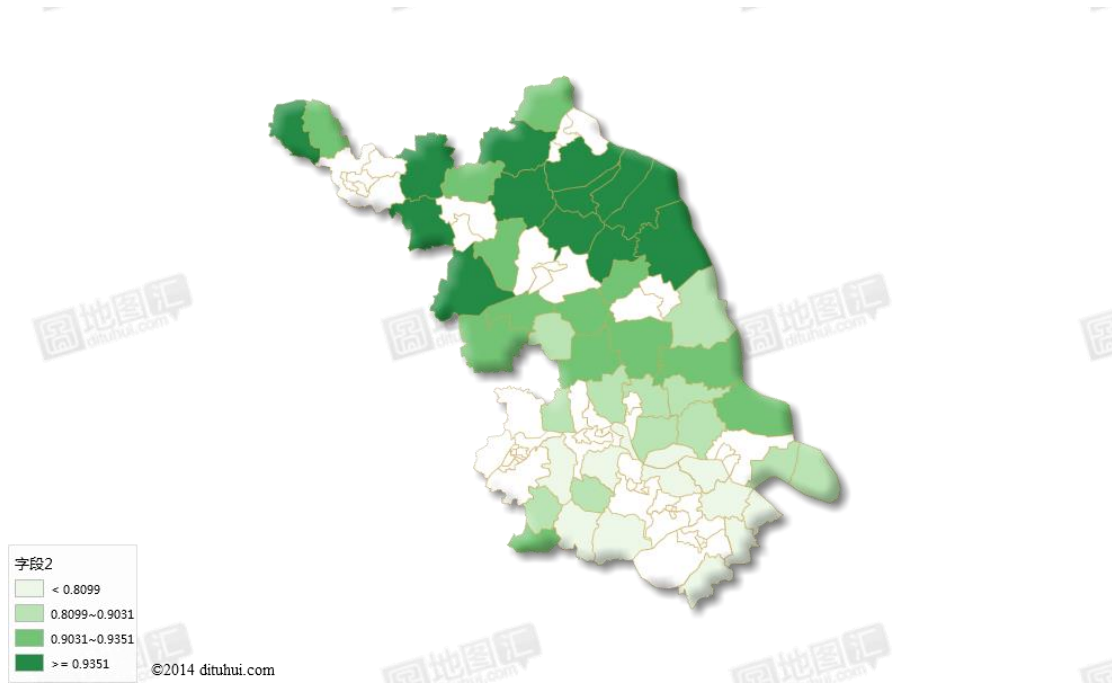


Figure 2: The extent of financial exclusion in counties in Jiangsu

Results of regression: Double-log Model

In the model based on data sample of Gansu, both two independent variables: the natural log of the demographical density of financial institution branches ($\ln bpd$) and the natural log of GDP per capita ($\ln agdp$) are statistically significant at the level of 1%.

Table 4: Results of the model of Gansu

variable	coef.	t-value	R ²
$\ln bpd$	0.7299***	3.32	0.6919
$\ln agdp$	0.4276***	2.71	
intercept	4.4555***	3.3	

Note: *** is 1% significant

It shows that, as the demographical density of financial institution branches and the GDP per capita increase by 1% in Gansu, the balance of loans per capita will increase 0.7299% and 0.4276%,

respectively.

R^2 in the regression of Gansu Province is 0.6919, which implicates that some factors beyond the economics, i.e. geographical factor, which should be taken into consideration. Besides, subsidized loans are not reflected in the data.

In the model based on data sample of Jiangsu, both two independent variables: the natural log of the demographical density of financial institution branches ($\ln bpd$) and the natural log of GDP per capita ($\ln agdp$) are statistically significant at the level of 1%, too.

Table 5: Results of the model of Jiangsu

variable	coef.	t-value	R^2
$\ln bpd$	0.5084***	3.29	0.9564
$\ln agdp$	0.9281***	8.8	
intercept	0.0286	0.03	

Note: *** is 1% significant

It shows that, as the demographical density of financial institution branches and the GDP per capita increase by 1% in Gansu, the balance of loans per capita will increase 0.5084% and 0.9281%, respectively.

The coefficient of GDP per capita in Jiangsu Province is close to 1, indicating the presence of rural finance for the rural economic growth is key factor to promoting the development of rural finance.

The balance of loans per capita is positively related and the number of financial institution branches per 10,000 population and GDP per capita. In terms of coefficient of the number of financial institution branches per 10,000 population, Gansu's is greater than Jiangsu's. In terms of coefficient of GDP per capita: Jiangsu's is greater than Gansu's. For Gansu, increasing the number of financial institution branches will increase the balance of credit per capita, further, alleviate rural financial exclusion effectively. It may also indicate that deposits absorbed in Gansu flow into

developed provinces like Jiangsu.

Conclusions

The forms of rural financial difference between areas are diverse. The degree of financial exclusion in Gansu Province are more serious than that in Jiangsu Province.

The policy-related loans issued in Gansu are effective.

Deposits absorbed in areas where financial exclusion are serious, flows to the regions relatively facing slighter exclusion; capital allocation function of rural financial markets in Gansu Province should be improved.

The balance of loans per capita and the number of financial institution branches per 10,000 population are positively related. If the number of financial institutions branches in Gansu Province is increased, the balance of credit per capita will be increased, further, it will alleviate rural financial exclusion effectively.

References

- Beck, T., & Honohan, P. (2008). Finance for all?: Policies and pitfalls in expanding access (Vol. 41792). World Bank Publications.
- Devlin, J. F. (2005). A detailed study of financial exclusion in the UK. *Journal of Consumer Policy*, 28(1), 75-108.
- Dymski, G. A., & Veitch, J. M. (1996). Financial transformation and the metropolis: booms, busts, and banking in Los Angeles. *Environment and Planning A*, 28(7), 1233-1260.
- Kempson, E., Whyley, C., & Policy Press, Bristol (United Kingdom); Joseph Rowntree Foundation, York (United Kingdom);. (1999). Kept out of opted out? Understanding and combating financial exclusion.
- Kempson, Elaine. In Or Out?: Financial Exclusion: Literature and Research Review. Financial Services Authority, 2000.
- Kumar, A. (2008). Banking the Poor: Measuring Banking Access in 54 Countries. *World Bank*.
- Leyshon, A., & Thrift, N. (1993). The restructuring of the UK financial services industry in the 1990s: a reversal of fortune?. *Journal of Rural Studies*, 9(3), 223-241.
- Leyshon, A., & Thrift, N. (1995). Geographies of financial exclusion: financial abandonment in Britain and the United States. *Transactions of the Institute of British Geographers*, 312-341.
- Leyshon, A., Signoretta, P., Knights, D., Alferoff, C., & Burton, D. (2006). Walking with moneylenders: the ecology of the UK home-collected credit industry. *Urban studies*, 43(1), 161-186.
- Panigyrakis, G. G., Theodoridis, P. K., & Veloutsou, C. A. (2002). All customers are not treated equally: Financial exclusion in isolated Greek islands. *Journal of Financial Services Marketing*, 7(1), 54-66.
- Qi, Y. (2007). Comparative study of provincial agriculture competition ability in China (Doctoral dissertation). Retrieved from <http://cdmd.cnki.com.cn/Article/CDMD-10651-2007110436.htm>
- Sarma, M. (2008). Index of financial inclusion. Indian Council for Research on International Economics Relations.
- Tian, J., & Tao, J. (2011). The Impact of Rural Financial Exclusion on the Rural-Urban Income Gap Empirical Analysis Based on the panel data from our 1578 counties (cities). *China Economic Studies*, 5, 56-64.

Wen, T. (1996). Two basic contradiction restricting "San-nong" problems. *Review of Economic Research*, 17-23

Appendix

Table 1: Descriptive analysis of indicators in Gansu

Indicator	Man.	Min.	Mean	Median	S.D.	Coefficient of Variance	Weight
Balance of deposits per capita	57143.96	1419.68	8456.03	6776.38	7345.42	0.87	0.06
Balance of credits per capita	48921.49	1064.78	7115.3	4504.63	7176.7	1.01	0.07
Proportion of township and village enterprises which obtained loans	9.68	0.01	0.39	0.14	1.18	3.06	0.2
Proportion of households who got loans	2.42	0.03	0.6	0.48	0.4	0.67	0.04
Number of financial institution branches per 10,000 population	6.96	0.24	1.67	1.38	1.08	0.64	0.04
Number of employees in financial institutions per 10,000 population	92.2	0.7	15.47	10.75	15	0.97	0.06
Number of financial institution branches per 10,000 km ²	5326.09	1.15	210	113.93	632.18	3.01	0.2
Number of employees in financial institutions per 10,000 km ²	73559.13	7.82	2339.46	889.15	8911.79	3.81	0.25
The volume of credits as proportion of local GDP	1.81	0.1	0.84	0.81	0.35	0.41	0.03
The volume of deposits as proportion of local GDP	2.05	0.04	0.67	0.57	0.36	0.54	0.04

Table 2: Descriptive analysis of indicators in Jiangsu

Indicator	Man.	Min.	Mean	Median	S.D.	Coefficient of Variance	Weight
Balance of deposits per capita	85814.00	5583.01	24055.48	18310.67	19752.46	0.82	0.10
Balance of credits per capita	186139.60	5457.27	33164.33	16154.52	40870.96	1.23	0.16
Proportion of township and village enterprises which obtained loans	2.41	0.02	0.26	0.12	0.48	1.87	0.24
Proportion of households who got loans	0.55	0.00	0.13	0.09	0.11	0.81	0.10
Number of financial institution branches per 10,000 population	3.56	0.51	1.38	1.23	0.73	0.53	0.07
Number of employees in financial institutions per 10,000 population	47.07	6.29	17.63	14.48	10.29	0.58	0.07
Number of financial institution branches per 10,000 km ²	2636.36	192.54	950.57	648.17	659.73	0.69	0.09
Number of employees in financial institutions per 10,000 km ²	36317.29	2932.27	12173.60	7735.33	9199.54	0.76	0.10
The volume of credits as proportion of local GDP	0.86	0.29	0.50	0.49	0.14	0.28	0.04
The volume of deposits as proportion of local GDP	1.01	0.23	0.55	0.51	0.16	0.29	0.04

Table 3: IRFE values of 65 counties in rural area of Gansu (2010)

County	IRFE	County	IRFE	County	IRFE	County	IRFE	County	IRFE	County	IRFE
Zhuoni	0.9870	Minle	0.9769	Wushan	0.9726	Lintao	0.9667	Guazhou	0.9567	Huating	0.9395
Huan	0.9854	Huining	0.9759	Maqu	0.9719	Zhuanglang	0.9658	Chongxin	0.9566	Yuzhong	0.9352
Li	0.9820	Jinta	0.9751	Jishishan Bonan, Dongxiang and Salar Autonomous	0.9717	Xihe	0.9653	Sunan Yugur Autonomous	0.9562	Yongjing	0.9349
Gulang	0.9808	Kang	0.9751	Zhangjiachuan Hui Autonomous	0.9717	Yongchang	0.9652	Minqin	0.9562	Gaolan	0.9255
Weiyuan	0.9807	Wen	0.9750	Gaotai	0.9714	Ning	0.9650	Longxi	0.9559	Diebu	0.9162
Dongxiang Autonomous	0.9805	Luqu	0.9748	Qingshui	0.9709	Heshui	0.9633	Qingcheng	0.9554	Hezheng	0.8887
Tanchang	0.9805	Lintan	0.9743	Min	0.9707	Liangdang	0.9632	Dunhuang	0.9525	Jingtai	0.8345
Zhang	0.9801	Tianzhu Tibetan Autonomous	0.9739	Zhenyuan	0.9706	Linze	0.9632	Cheng	0.9503	Linxia (City)	0.5565
Shandan	0.9796	Zhouqu	0.9738	Linxia	0.9681	Jingning	0.9624	Gangu	0.9493	Average	0.9561
Xiahe	0.9796	Jingyuan	0.9735	Zhengming	0.9674	Yumen	0.9611	Hezuo	0.9471		
Huachi	0.9781	Aksai Kazakh Autinimous	0.9733	Qinan	0.9673	Hui	0.9602	Jingchuan	0.9414		
Tongwei	0.9778	Subei Mongol Autonomous	0.9731	Lingtai	0.9668	Yongdeng	0.9590	Guanghe	0.9413		

Table 4: IRFE values of 50 counties in rural area of Jiangsu (2010)

County	IRFE	County	IRFE	County	IRFE	County	IRFE	County	IRFE	County	IRFE
Donghai	0.9553	Feng	0.9369	Ganyu	0.9238	Lishui	0.8979	Jingyan(City)	0.8239	Changshu (City)	0.6562
Guanyun	0.9520	Sihong	0.9361	Xinghua	0.9227	Rugao(City)	0.8968	Jintan(City)	0.8099	Wujiang(City)	0.6479
Guannan	0.9460	Suining	0.9353	Jianhu	0.9182	Taixing(City)	0.8913	Liyang(City)	0.803	Kunshan(City)	0.6094
Lianshui	0.9447	Shuyang	0.9351	Baoying	0.9175	Jinhu	0.8658	Yixing(City)	0.7672	Danyang(City)	0.5114
Xiangshui	0.9442	Xinyi	0.9336	Gaoyou	0.9148	Qidong	0.8641	Jingjiang (City)	0.7249	Yangzhong (City)	0.4079
Funing	0.9426	Xuyi	0.9322	Pei	0.9122	Haimen	0.8577	Jiangyin (City)	0.7140	Average	0.8488
Binhai	0.9414	Dongtai	0.9318	Rudong	0.9047	Yizheng	0.8537	Jurong(City)	0.6771		
Sheyang	0.9394	Siyang	0.9290	Gaochun	0.9031	Jiangdu	0.8535	Taicang(City)	0.6737		
Pizhou(City)	0.9392	Hongze	0.9270	Dafeng	0.898	Haian	0.8448	Zhangjiagang (City)	0.6733		