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# **Financial Inclusion and Rural Financial Services in China<sup>1</sup>**

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# Financial Inclusion and Rural Financial Services in China

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## Introduction

◆ Rural financial reforms have been a priority of the Central Committee since 2004 in China.

◆ *Financial inclusion* refers to the breadth and depth of financial services to reach underserved stakeholders

◆ In 2008, China government proposed to achieve *inclusive financial services* in rural areas through developing small financial institutions and other preferential policies.

BUT whether or not policies on rural financial reforms are effective, i.e. more inclusive, is not so clear.

## Objectives

This study attempts to determine whether China's financial reforms are more inclusive.

We investigate:

- How to measure China's Rural Financial Inclusion (RFI)
- Factors that affect or impact RFI
- whether financial reforms have been effective/inclusive ?

## Measuring Financial Inclusion

➤ To evaluate the degree of Rural Financial Inclusion, we adapt the Index of Financial Inclusion (IFI) Sarma et al. (2008)

- *Banking penetration*;
- *Availability of banking system*;
- *Usage of the financial system*;
- *Barriers (we added)*

$$IRFI = 1 - \sqrt{\frac{(1-d_1)^2 + (1-d_2)^2 + (1-d_3)^2 + (1-d_4)^2}{4}}$$

Where  $d_1$  is Banking penetration;  $d_2$  is Availability of banking system;  $d_3$  is Usage of the financial system;  $d_4$  is Barriers.

➤ To Analyze influential factors, we use a 3SLS panel model :

$$y_{it} = \beta_0 + \beta_1 x_{1,it} + \beta_2 x_{2,it} + \dots + \beta_K x_{K,it} + \mu_{it}$$

Endogenous Variables:

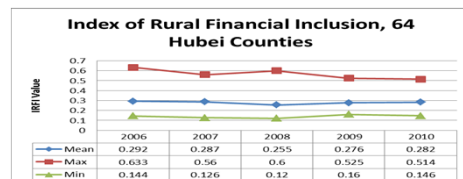
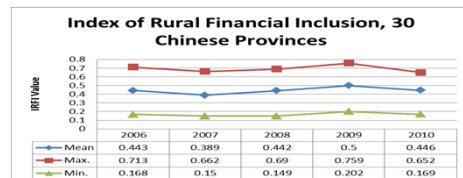
Index of Rural Financial Inclusion

Non performing loans (%)

Consumption/ Income Ratio

Then we do a comparative analysis between financial inclusion at the national level and the provincial level.

## Results



Regression result (1)

	Model 1 R <sup>2</sup> = .7009 P = .0000	Model 2 R <sup>2</sup> = .8439 P = .0000	Model 3 R <sup>2</sup> = .9015 P = .0000
	IRFI	NPL	Consumption/Income
NPL	-.254 (.370)	IRFI	-.198 (.022)
Consumption/Income	.023 (.842)	Consumption/Income	-.041 (.782)
Income ratio	-.053 (.047)	Income ratio	.018 (.302)
Engel Coef.	-.402 (.044)	City state	-.412 (.002)
Employment	.079 (.001)		
Medicare	-.002 (.000)		
Communication	-.001 (.016)		
Urbanization	-.104 (.354)		
Citystate	.253 (.000)		
Constant	.944 (.000)	.212 (.075)	.807 (.000)
Fixed Effects			
Agricultural Region	Included	Included	Excluded
Province	Excluded	Included	Included
Year	Included	Included	Included

Regression result (2)

	Model 1 R <sup>2</sup> = .2851 P = .0000	Model 2 R <sup>2</sup> = .2477 P = .0000	Model 3 R <sup>2</sup> = .7417 P = .0000
	IRFI	NPL	Consumption/Income
NPL	-.058 (.099)	IRFI	-1.680 (.156)
Consumption/Income	-.039 (.182)	Consumption/Income	-.718 (.163)
Income ratio	-.002 (.955)	Income ratio	.477 (.468)
Employment	.007 (.488)		
Medicare	.011 (.000)		
Communication	.012 (.460)		
Urbanization	.071 (.042)		
Mobility	-.004 (.322)		
Constant	.142 (.000)	.857 (.000)	1.456 (.000)
Fixed Effects			
Year	Included	Included	Included
Counties	Excluded	Included	Included

## Conclusions

➤ China's IRFI is relatively low, especially in Western areas and unbalanced.

➤ We also find that the ranks vary greatly in some provinces and counties. The rank of each dimension value varies widely not only in provincial level data but also in county level data.

➤ Employment, Medicare and Urbanization have significant effect on IRFI. However other variables have no significant relationship with IRFI. Furthermore, some variables are significant in the national model but not in provincial model.

➤ Improving IRFI will not necessary lead to increases in non-performing loans.

➤ Rural financial services play an important role in economic welfare BUT mostly benefit the middle-income group.

◆ *Effective institutions designed to expand services and serve the poor is still a challenge to China's rural financial reform.*

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