

Empirical Analysis of Regional Financial Development and Regional Economic Growth

—Based on the Data of Fifteen States in Xinjiang

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Abstract

This article collected panel data of fifteen states of Xinjiang between 2005 and 2011, and based on the method of quantile regression, made an empirical research among financial development and economic growth of Xinjiang fifteen states. The financial related rate, the efficiency of financial intermediation, the structure of financial savings and insurance depth were included in this paper. Conclusion: Comprehensive financial development level (LNFIR, LNFAE, LNFSS, LNIND) in different quantile level factor of economic growth, regional financial development level of Xinjiang restricts economic growth. Finally, this paper, according to the empirical results, puts forward the “financial development cycle theory”, and puts forward some suggestions.

Keywords

Xinjiang Fifteen States, Financial Development, Economic Growth, Quantile Regression

1. Introduction

In the third Plenary Session of the 16th CPC (Communist Party of China) Central Committee, China put forward the Scientific Outlook on Development problem, its content is comprehensive, coordinated and sustainable development. Therefore, from the perspective of sustainable development of regional economy, it is necessary to study the relationship between financial development and economic growth in a region. In recent years, the world situation has undergone profound changes, and China's development is still in an important period of strategic opportunities, is facing a rare historical opportunity, but also facing many predictable and unpredictable risks and challenges. In order to seize

the opportunity to deal with the challenge, the “12th Five-Year” plan is introduced in a timely manner. During the “12th Five-Year”, the government put the strategy on the implementation of the western development strategy in the overall strategic priority of regional development. We should give full play to the comparative advantages of all regions, promote the rational flow of regional production factors and orderly transfer of industries, and cultivate new regional economic growth poles in the Midwest. Xinjiang economic work conference has been held, nineteen provinces and cities Yuanjiang work in full swing, the preferential policies for Xinjiang have been introduced, which undoubtedly made an unprecedented foreshadowing for the regional economic development

2. Literature Review

As the core of the economy, the prospects for Xinjiang’s financial development will also be waiting for us to wait and see. The relationship between regional finance and regional economy is the extension of the relationship between finance and economy in the field of view, the research of foreign scholars usually covered by the relationship between financial development and economic growth, and on the understanding and study of experienced a long process. After the mid 17th Century, the classical school gradually flourished, they advocated economic liberalism, that a change in the quantity of money will only cause the price level in proportion to rise or fall, and not have a substantial impact on the production and supply of real output and employment, so money is neutral. Then, new classical economics believes that the currency makes the commodity exchange become more unobstructed, will not have a fundamental influence on the economy; monetary economics thinks that the money supply can affect the output and prices, but in the long term, the output is completely determined by the labor, capital, technology and other non monetary factors, money supply only determines prices. In late 20th Century, Greenwood and Jovanovic (1990) research the India capital market, the results show that only part of the funds will be converted from bank deposits into tradable securities through the stock market, stock market expansion has caused a decline in business investment in fixed assets. Stand in the perspective of rational expectations, Lucas (1988) believes that the role of Finance in promoting economic growth is limited, even can be ignored, he believes the many research “excessive emphasis” on financial factors in economic growth. Krugman (2003) who once accurate predictions about the 1998 Asian financial crisis also believes that finance is only the results is of economic growth, even it restricts economic growth, and lead to economic collapse. On the contrary, many foreign economists believe that finance can promote economic growth, and is an important factor, for example, Schumpeter (1911), Goldsmith (1969), Patrick (1966) etc., I have to mention that McKinnon (1973) and Shaw (1973) propose the theory of “financial deepening” and “financial inhibition”. With the development of financial mathematics and econometrics, the empirical analysis of the relationship between finance and economy by

foreign economists has been more mature. For instance, [Levine \(1997\)](#), [Beckerman \(1998\)](#). At present, most of the foreign scholars think that the economic and financial influence each other, unfortunately, but they can not give a standard conclusion.

In our country, The research on the relationship between regional financial development and regional economic growth have not formed a theoretical system, most of them nearly indiscriminately imitate the western theory, and all of our scholars verify the existing western theory by use different methods or in different period or based on different data, innovative thinking is very lack. Of course, it also has some significance. [Liu \(2002\)](#) made a simple linear regression using the average cross sectional data of 31 provinces (autonomous regions and municipalities directly under the central government) in mainland China for three years in 1998-2000 years. But because of the simple linear regression, the probability of error is higher, so the result is very unreliable. [Zhou and Zhong \(2004\)](#) studied the relationship between financial development and economic growth based on the data of China's central, western and eastern. Results showed that financial development and economic growth has formed a benign interaction in the eastern, while in the west, this interaction has not yet appeared. [Wang \(2005\)](#) analyzed the whole data of eastern and western during the period 1990-2002, his conclusion is that there exists long-term cointegration relationship between the eastern and western regions of financial development and economic growth, and financial development has obvious promotion effect on economic growth in eastern, but there is a mutual inhibition relationship between financial development and economic growth in the West. [Ma \(2006\)](#) use the granger-causality test respectively on the 1980-2000 data of Eastern, central and Western verification shows that significant reciprocal causation relationship exists between the eastern and central economic growth and financial development, economic growth in the western region has significantly promoted the development of finance, financial development has a certain role in promoting economic growth, but effect is not obvious, similar results are also obtained, such as [Ran \(2006\)](#), [Xu \(2007\)](#), etc. The more objective research comes from [Wu \(2009, 2010\)](#), his analysis based on quantile regression, show that financial development on the impact of economic growth and volatility is statistically significant in different quantiles of economic growth. But there's nothing new about it. Therefore, to sum up, we know that the study of regional economic growth and financial development by scholars in China remains at the level of verification of the existing theories in the west.

3. Empirical Analysis of Regional Financial Development and Regional Economic Growth

3.1. Object Description, Model Setting and Data Source

According to the administrative division of Xinjiang statistical yearbook, taking into account the particularity of the administrative divisions of Xinjiang, the

planning of the main functional areas of Xinjiang is as follows: Urumqi, Karamay, Shihezi, Turpan area, Hami area, Changji area, Yili area, Tacheng area, Aletai area, Bazhou, Bozhou, Akesu, Kashi area, Hetian area, Altai mountain forest ecological function area, the Tarim River desert ecological function area, Altun Mountains grassland ecological function zone. Taking into account the specific situation of each functional area, the state of Yili directly under the county expanded to Yili state, so this paper chooses Urumqi, Karamay, Shihezi, Yili area, Turpan area, Hami area, Changji area, Tacheng area, Aletai area, Bozhou, Bazhou, Akesu area, Kashi area, Hetian area, total of fifteen states. We implement an empirical analysis for the relationship between financial development and economic growth in the fifteen states based on the method of quantile regression. In order to maintain the consistency of statistical indicators, the data in our study from the fifteen prefectures of Xinjiang “national economic and social development statistics bulletin 2005-2011”, and “Xinjiang Statistical Yearbook 2006-2012”, the actual time of data is 2005-2011 (detailed data are shown in the appendix). What needs to be explained is that: some of missing values and outlier, we use the method for making up missing values in time series to complement missing values and replace the outlier.

In the empirical literature of economic growth, production function is a basic estimation framework. In our empirical research, we also use it to analysis the relationship between regional financial development and economic growth, set the total production function (T) in the form of the output as a function of the abstract level of financial development and control variables, control variables are other main factors in addition to the variables thus describe the financial development level, so it can be expressed as:

$$Y_t = F(\text{Finance}_t, \text{Control}_t) \quad (1)$$

Notes: Y_t represents output or added value, it is generally replaced by GDP; Finance_t is the level of financial development; Control_t is the control variable.

Generally, if the elasticity research is carried out, it can be expanded on the basis of Cobb Douglas type production function. Based on the available data research the relationship between financial development and economic growth of Xinjiang's fifteen prefectures. The explained variable take per capita GDP reflects the economic growth, with GDPP representation; explanatory variables takes two groups of variables: the financial development level and control variables. They are defined as follows:

1) The level of financial development

Financial related ratio: $\text{FIR} = \text{Financial institutions loans}/\text{GDP}$

Financial intermediation efficiency: $\text{FAE} = \text{Loan}/\text{Deposit}$

Financial savings structure: $\text{FSS} = \text{Savings}/\text{All deposits}$

Insurance depth: $\text{IND} = \text{Premium income}/\text{GDP}$

2) Control variable

Physical capital input: $\text{GTZB} = \text{Region total fixed capital}/\text{GDP}$

Human capital investment: $\text{CZZB} = \text{Total government expenditure}/\text{GDP}$

Economic openness degree: $CKZB = \text{Total export trade}/\text{GDP}$

Labor input: $LDZB = \text{Total wages of staff and workers}/\text{GDP}$

According to the above discussion, we need to carry out the elasticity research, the model is set as follows:

$$\begin{aligned} \ln GDP_t = & \beta_0 + \beta_1 * \ln GTZB_t + \beta_2 * \ln CZZB_t + \beta_3 * \ln CKZB_t + \beta_4 * \ln LDZB_t \\ & + \beta_5 * \ln FIR_t + \beta_6 * \ln FAE_t + \beta_7 * \ln FSS_t + \beta_8 * \ln IND_t + \mu_t \end{aligned} \quad (2)$$

3.2. Fifteen Prefectures of Xinjiang Financial Development and Economic Growth: Conditional Quantile Regression Results and Statistical Analysis

3.2.1. Comparison of Estimation Results between Conditional Median Regression and Conditional Mean Regression

2005-2011 in fifteen prefectures of Xinjiang financial development and economic growth data, including a total of 105 groups of sample data of 15 states in 7 years, relatively large sample. For comparison, conditional median regression and conditional mean regression were used for empirical analysis. This paper focuses on the similarities and differences between estimation methods, statistical tests (goodness of fit, equation significance test, significance test of variables) and the estimation of equation coefficients.

1) Estimation method

The results of conditional median regression are shown in **Table 1**, and the results of conditional mean regression are shown in **Table 2**. The estimation method of conditional quantile (median) regression and conditional mean regression is different, the conditional quantile (median) use Least absolute-deviations (LAD) estimator to estimate, the conditional mean regression use Least squares deviations (LSD) estimator to estimate. Therefore, the estimation results are naturally different due to the different estimation methods.

2) Statistical test

The significance test (Quasi-LR test and F test) of conditional median regression and conditional mean regression were statistically significant at the significant level of 0.01. Variable significance test (t-test), in addition to the variables in **Table 1**, LNCKZB, LNLZB and **Table 2**, the variable LNCKZB is not statistically significant at the significant level of 0.10, other variables in **Table 1** and **Table 2** are statistically significant at the significant level of 0.05. Because of the different calculation methods, the goodness of fit of the two estimation methods is obviously different. Generally, based on the same data, the pseudo goodness of fit (Pseudo R-squared) was significantly smaller than the goodness of fit (R-squared), and the adjusted pseudo goodness of fit (Adjusted Pseudo R-squared) was significantly smaller than the adjusted goodness of fit (Adjusted R-squared). In **Table 1**, Pseudo R-squared = 0.6182, Adjusted Pseudo R-squared=0.5864; In **Table 2**, R-squared = 0.8366, Adjusted R-squared=0.8230. In addition, in **Table 2**, $D.W = 0.6636$, because $D.W. = 2(1 - \rho)$, can calculate the $\rho = 0.6682$, showed a positive correlation between the sequence order, If the AR (1) is introduced into the model setting, the goodness of fit can be improved. However, because both

Table 1. Conditional median regression results.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.20185	0.987134	11.34785	0.0000
LNGTZB	0.85292	0.172232	4.952158	0.0000
LNCZZB	-0.634153	0.123479	-5.135692	0.0000
LNCKZB	0.015274	0.03691	0.413809	0.6799
LNLDBZ	-0.343962	0.286338	-1.201246	0.2326
LNfir	-1.161545	0.283865	-4.091887	0.0001
LNFAE	1.373073	0.471864	2.909892	0.0045
LNfss	-2.166223	0.419899	-5.158918	0.0000
LNIND	0.965763	0.224689	4.298218	0.0000
Pseudo R-squared	0.618192	Mean dependent var		9.825069
Adjusted R-squared	0.586374	S.D. dependent var		0.870102
S.E. of regression	0.385351	Objective		13.53921
Quantile dependent var	9.923045	Objective (const. only)		35.46077
Sparsity	0.861560	Quasi-LR statistic		203.5521
Prob(Quasi-LR stat)	0.000000			

Note: 1) Dependent Variable: LNGDPP; 2) Method: Quantile Regression (Median); 3) Sample: 2005-2011; 4) Bootstrap method: XY-pair, reps = 200, mg = kn, seed = 673,929,944; 5) Included observations: 609.

Table 2. Conditional mean regression results.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	10.12629	0.710841	14.24549	0.0000
LNGTZB	0.664289	0.157959	4.205449	0.0001
LNCZZB	-0.621644	0.097067	-6.404296	0.0000
LNCKZB	0.022919	0.023392	0.979765	0.3297
LNLDBZ	-0.679908	0.169245	-4.017309	0.0001
LNfir	-0.884448	0.185452	-4.769155	0.0000
LNFAE	1.011797	0.244539	4.137572	0.0001
LNfss	-2.111214	0.237687	-8.882314	0.0000
LNIND	0.883974	0.191547	4.614915	0.0000
R-squared	0.836576	Mean dependent var		9.825069
Adjusted R-squared	0.822958	S.D. dependent var		0.870102
S.E. of regression	0.366108	Akaike info criterion		0.910038
Sum squared resid	12.867350	Schwarz criterion		1.137521
Log likelihood	-38.777020	Hannan-Quinn criter.		1.002219
F-statistic	61.428760	Durbin-Watson stat		0.663587
Prob (F-statistic)	0.000000			

R-squared and Adjusted R-squared have exceeded 0.80. Furthermore, there was no sequence correlation test for conditional median regression in **Table 1**, in order to increase the comparability, the conditional mean reversion with AR (1) is no longer given in this paper.

3) Equation coefficient estimation

The values of the conditional median regression estimator and the conditional mean regression estimator of the corresponding coefficients are obviously different. However, there is no change in the conditional median regression estimator corresponding to the eight explanatory variable coefficients and the symbol of conditional mean regression estimator. In the conditional median regression model, the estimation values of LNCKZB and LNLZB were not significant in T-test, the rest are significant; in the conditional mean regression model, the estimation of LNCKZB is not significant, others are significant. In the conditional median regression model, the absolute value of the estimated variables LNCKZB and LNLZB coefficients is less than the absolute value of the estimated value of the conditional mean regression explanatory variable coefficient; The absolute values of the explanatory variables LNGTZB, LNCZZB, LNFIR, LNFAE, LNFSS and LNIND coefficients in the conditional median regression model are greater than the absolute values of the estimated values of the conditional mean regression explanatory variable coefficients.

3.2.2. Analysis of the Difference and Variation of Conditional Quantile Regression Estimation Coefficients

As mentioned before, as a result of the economic gap between the various prefectures of Xinjiang, the Xinjiang economic development empirical analysis, put forward the countermeasures, it can not be generalized, not the statistical regression analysis using traditional statistical methods for the average properties. Quantile regression analysis can solve this problem. As mentioned before, because the regional economic disparity is obvious in all aspects of Xinjiang, therefore, an empirical analysis of Xinjiang's economic development and put forward the countermeasures, we can not generalize, the traditional statistical methods can not be used for the regression analysis of the average properties. quantile regression analysis can solve this problem.

In order to reveal the impact of financial development and other control variables on economic growth at different levels of economic growth, we need to carry out conditional quantile regression estimation at different quantile levels of economic growth. Two aspects are also involved in the specific estimation: the selection of the quantile and the calculation of the standard deviation of the coefficient. First, in the selection of quantiles, 10 quantile estimates are taken here. Limited by the length of this article, only 5 quantile results are given, Namely $\tau = 0.10, 0.30, 0.50, 0.70, 0.90$. Secondly, the standard deviation of the quantile regression coefficient is obtained by the self-help method (bootstrap) repeated sampling 200 times. The results obtained from the 5 quantiles of the 10 quantile regression are shown in **Table 3**.

Table 3. Quantile regression coefficient result.

Variable	Quantile	Coefficient	Std. Error	t-Statistic	Prob.
C	0.1	10.507740	1.375323	7.640201	0.0000
	0.3	11.935460	0.938594	12.716310	0.0000
	0.5	11.201850	0.987134	11.347850	0.0000
	0.7	10.703880	1.007829	10.620730	0.0000
	0.9	10.060530	1.378885	7.296131	0.0000
LNGTZB	0.1	0.809803	0.355568	2.277491	0.0250
	0.3	0.936533	0.257231	3.640822	0.0004
	0.5	0.852920	0.172232	4.952158	0.0000
	0.7	0.596492	0.207914	2.868929	0.0051
	0.9	0.554899	0.276481	2.007002	0.0476
LNCZZB	0.1	-0.931531	0.192651	-4.835318	0.0000
	0.3	-0.670307	0.142787	-4.694451	0.0000
	0.5	-0.634153	0.123479	-5.135692	0.0000
	0.7	-0.443958	0.141852	-3.129715	0.0023
	0.9	-0.524541	0.230836	-2.272351	0.0253
LNCKZB	0.1	-0.025015	0.057754	-0.433128	0.6659
	0.3	0.003148	0.033020	0.095339	0.9242
	0.5	0.015274	0.036910	0.413809	0.6799
	0.7	0.006532	0.033189	0.196819	0.8444
	0.9	-0.020852	0.052526	-0.396995	0.6923
LNLDZB	0.1	-0.573524	0.400396	-1.432390	0.1553
	0.3	-0.223640	0.352367	-0.634680	0.5271
	0.5	-0.343962	0.286338	-1.201246	0.2326
	0.7	-0.688294	0.303206	-2.270051	0.0254
	0.9	-0.891787	0.311747	-2.860608	0.0052
LNFIR	0.1	-0.831666	0.374448	-2.221044	0.0287
	0.3	-1.445603	0.262055	-5.516416	0.0000
	0.5	-1.161545	0.283865	-4.091887	0.0001
	0.7	-0.836744	0.235669	-3.550511	0.0006
	0.9	-0.625700	0.284341	-2.200525	0.0302
LNFAE	0.1	0.606575	0.530377	1.143668	0.2556
	0.3	1.653257	0.429249	3.851508	0.0002
	0.5	1.373073	0.471864	2.909892	0.0045
	0.7	0.945947	0.344973	2.742088	0.0073
	0.9	0.564284	0.401933	1.403928	0.1636
LNFS	0.1	-1.760868	0.388648	-4.530757	0.0000

Continued

	0.3	-2.472365	0.294652	-8.390783	0.0000
	0.5	-2.166223	0.419899	-5.158918	0.0000
	0.7	-1.745039	0.376772	-4.631555	0.0000
	0.9	-2.307105	0.631270	-3.654703	0.0004
LNIND	0.1	1.239505	0.409374	3.027807	0.0032
	0.3	1.201106	0.268524	4.472999	0.0000
	0.5	0.965763	0.224689	4.298218	0.0000
	0.7	0.892971	0.216263	4.129106	0.0001
	0.9	0.962809	0.376418	2.557820	0.0121

1) The difference analysis of the estimators of the coefficients of different explanatory variables. In a specific quantile level of economic growth, the impact of financial development and other control variables on economic growth is different. Specifically, as shown in **Table 3**, the coefficients of the explanatory variables, LNGTZB, LNFAE, and LNIND, are positive in the different quantile levels of the explained variable LNGDPP, the coefficients of the explanatory variables LNCZZB, LNLDZB, LNFIR and LNFSS are negative, and the absolute value of the coefficient of the variable LNFSS is the largest at all the quantiles. The coefficient of explanatory variable LNCKZB is negative at the 0.1 and 0.9 quantiles of the explained variable. It is positive at other quantiles, and the absolute value of the negative coefficient is larger than the positive value, but its absolute value is the smallest compared with other variables. In addition, it is easy to see that the standard deviation of the quantile regression coefficient obtained by the repeated sampling of the self-help method (bootstrap) is also different from the standard deviation of the quantile regression coefficient obtained by the 200 times. For every specific quantile level of economic growth, the standard deviation of the coefficient of explanatory variable LNCKZB is the smallest, while the standard deviation of the coefficients of explanatory variables LNFAE and LNFSS is relatively large. In addition, the standard deviation of regression coefficient near the 0.5 quantile is relatively small, and the standard deviation of regression coefficient near the 0.1 and 0.9 percentile is relatively large. Notably, the tail probabilities of the significance test of the regression coefficient of the explanatory variable LNCKZB near the quantiles were more than 0.10, The tail probabilities of the significance test of the regression coefficient at the 0.1, 0.3, and 0.5 quantiles of the explanatory variable LNLDZB are all greater than 0.10. Only the P value of the tail probability of the LNFAE variable in the 0.1 and 0.9 quantile regression coefficient significant test appears more than 0.10. the top down is 0.2556 and 0.1636, respectively.

2) Variation analysis of the estimated values of the same explanatory variables. At the level of every quantile of economic growth, the impact of an explanatory variable (financial development and other control variables) on economic growth is different. As shown in **Table 3**, the quantile level of the dependent variable

LNGDPP increases from 0.1 to 0.9. The point estimates for the coefficients of the explanatory variables (financial development and other control variables) are all changing. We focus on the analysis of the variation characteristics of the coefficient points of the variables related to the level of financial development. That is, the explanatory variables LNFIR, LNFAE, LNFSS, LNIND, specifically expressed as: The coefficient of the explanatory variable LNFIR is reduced first and then incrementing, the coefficient of LNFIR begins to increase from the 0.30 digits of LNGDPP, it basically reflects the basic law of the loan function of financial institutions with different quantile levels in LNGDPP of fifteen prefectures of Xinjiang; The coefficient of LNFAE increasing first and then decreasing, basically, the coefficient of LNFAE begins to become smaller at the 0.30 digits of the interpreted variable LNGDPP, it basically reflects the basic law of efficiency of financial intermediary role with different quantile levels in LNGDPP of fifteen prefectures of Xinjiang; The coefficient of the explanatory variable LNFSS has two sharp drops at both ends, it is gradually smaller from 0.1 to 0.3 quantiles of LNGDPP, from 0.3 to 0.7, it is progressively larger, from 0.7 to 0.9, the number is gradually reduced, This basically reflects the basic law of financial savings structure; The coefficient of the explanatory variable LNIND is reduced first and then incrementing, the coefficient of LNIND began to increase at At the 0.7 percentile of LNGDPP, which basically reflects the basic rules of the insurance industry.

4. Conclusions and Policy Recommendations

4.1. Conclusion

Based on the above empirical analysis, we have the following basic conclusions: there are some differences between conditional median regression and conditional mean regression. Compared with conditional mean regression, conditional (multiple) quantile regression can reveal more in-depth and comprehensive data information. Using the 2005-2011 data of fifteen prefectures of Xinjiang, the result of the conditional (multiple) quantile regression shows that the impact of financial development and other control variables on economic growth is different in specific quantile level of economic growth, showing the differences in the role of explanatory variables. In each of the different quantile levels of economic growth, the impact of an explanatory variable (financial development and other control variables) on economic growth is different, showing the volatility of the explanatory variable; Considering the level of financial development (LNFIR, LNFAE, LNFSS, LNIND) in different quantile level of economic growth, it will be found in every quantile level of economic growth, regional financial development in Xinjiang has the opposite effect on economic growth, it shows that the level of regional financial development in Xinjiang restricts the growth of the economy, unlike what we think subjectively that the promotion of Xinjiang's financial industry, it will promote the growth of Xinjiang's economy. It is seen from this, the predecessors think that financial development promotes

economic growth, financial development will restrict economic growth or there is no relationship between financial development and economic growth is one-sided. From the data analysis results, we can see that in different stages of economic development, the level of financial development plays a different role in economic growth, and the extent of action is also different. That is, in the “budding period” of finance, economic growth needs to nurture financial development, at this time, financial development needs compensation from other sectors of the economy, at this stage, finance is a drag on economic growth; To the “growth period” of finance, financial development and economic growth are coordinated and mutually promoting, in this stage, if the two are not coordinated, there will be mutual constraints, but it is often difficult to coordinate the development of the two; If the financial level continues to develop, it will enter the “mature period”, financial development will serve the economic growth well; If finance continues to develop and enter the “period of excessive prosperity”, financial development will be a factor that restricts economic growth, and even lead to a recession and the collapse of the financial system, for example, Wall Street and Wenzhou folk lending.

4.2. Policy Recommendations

4.2.1. Efforts to Promote Leapfrog Development of Financial Scale and Efficiency with the Aid of Policy

Our state has paid more and more attention to the economic development of Xinjiang, and has launched a new round of support for Xinjiang. This provides an unprecedented opportunity for Xinjiang’s economic development. Chiefly, Xinjiang fifteen prefectures need to clear their own financial development stage, From the financial related ratio (FIR), the loans of Urumqi and Shihezi are more than its GDP, the rest are less than 1, mostly in 0.4 - 0.6, the lowest is Karamay, the financial related ratio is 0.17. Reference to Appendix **Table A11**. But there is no doubt that Urumqi and Karamay are the richest areas in Xinjiang, which means Urumqi relies on the total financial volume, while Karamay wins by the financial benefit (the paper defined as the gains from the financial assets of the unit). It is pointed out the development direction for other states in Xinjiang, For example, Shihezi, Hami, and Kashi with higher financial related ratios(FIR), they can continue to expand the financial scale, improve the financial related ratio and realize the leapfrog development. States with lower financial related ratios should be to expand the scale of the finance, at the same time, more efforts should be made in the financial efficiency, and the national wealth, supported by the unit loans, is constantly increasing, and the financial benefits are constantly improved, and the leap forward development is finally achieved.

4.2.2. Vigorously Advocates the Spirit of Contract, Optimizes the Environment of Indirect Financing, and Improves the Efficiency of Financial Intermediation (FAE)

Modern society is a society ruled by law, but our country is slow to establish and perfect all kinds of legal systems, in Xinjiang, where the degree of nationalization

is still high, the construction of various laws and regulations is more serious and more complicated. But the modern economic society is in the era of contract economy, without the spirit of contract, it is hard for the society to have a good faith environment and lack of integrity. As a core of indirect financing business, banks will inevitably raise the loan threshold. As a result, enterprises or individuals who are short of money can hardly get the support needed, which hinders the development of enterprises and individuals, and can not provide enough power for economic growth. From the empirical results, we can see that the efficiency of financial intermediation has a significant positive impact on economic growth at each quantiles. In fact, The efficiency of financial intermediation in fifteen prefectures of Xinjiang mostly in the 30% - 55% level, no area reached the level of 70%, details see Appendix **Table A12**. Therefore, Xinjiang fifteen prefectures should vigorously promote the spirit of contract, to optimize the indirect financing environment, even the implementation of the national rural bank lending patterns—Five household joint insurance, and actively establish the linkage mechanism between finance, prompting banks to reduce lending threshold, in order to improve the efficiency of financial intermediation, so as to promote the regional economic growth.

4.2.3. Speed up the Establishment and Improvement of Social Security System, Reduce the Saving Levels

Macroeconomics believes that savings can provide the funds needed for economic growth, however, if the social savings rate is generally high, residents have less disposable income to consume, and lack of consumption, that is, lack of demand, which will surely lead to slow economic growth or even zero growth. It can be seen from the empirical results of this article, Xinjiang's state financial savings structure (LNFSS) has a significant negative impact on economic growth at all the quantile levels, and the absolute value of the influence coefficient on the economy is the largest at each quantiles, it can be seen that the financial savings structure in Xinjiang has been a serious impediment to economic growth. Therefore, the reduction of the social savings rate is to provide demand for the economic development. It's easy to think that people's high saving concept is only to cope with unexpected needs. If the social security system is perfect, people will consume (of course, do not encourage extravagance and waste), so that economic development will be strongly supported.

4.2.4. Widely Publicized Insurance Undertakings and Accelerated the Development of Insurance

Xinjiang is a multi-ethnic region, agriculture is more developed, but agriculture has greatly affected by natural disasters, in addition, Xinjiang has three extremist forces, especially in the three southern states, three forces activity is rampant, it leads people to invest in other underdeveloped areas, but did not dare to take action. More serious is, once a major terrorist incident, the compatriots of all ethnic groups in Xinjiang mainland will quickly return home, which is very unfavorable to the economic development of Xinjiang around the state, if there is

insurance, fear will be reduced or even disappear, therefore, to speed up the development of the insurance industry is very important. From the empirical results, we can see that insurance depth (LNIND) has a significant positive impact on economic growth at all quantile levels, and also has a greater impact.

References

- Beckerman, P. (1998). The Consequences of Upward Financial Repression. *Review of Radical Political Economics*, 2, No. 1.
- Goldsmith, R. W. (1969). *Financial Structure and Development*. New Haven, CT: Yale University Press.
- Greenwood, J., & Jovanovic, B. (1990). Financial Development, Growth and the Distribution of Income. *Journal of Political Economy*, 98, No. 5, Part 1.
<https://doi.org/10.1086/261720>
- Krugman, P. (2003) The Myth of Asia's Miracle. *Foreign Affairs*, 73, 62-78.
<https://doi.org/10.2307/20046929>
- Levine, R. (1997). Financial Development and Economic Growth: Views and Agenda. *Journal of Economic Literature*, XXXV, 688-726.
- Liu, X. R. (2002). An Empirical Analysis of the Relationship between Regional Financial Development and Economic Growth in China. *Journal of Southwest National Academy of Nationalities*, 12, 109-112.
- Lucas, R. E. (1988). On the Mechanics of Economic Development. *Journal of Monetary Economics*, 22, 3-42.
- Ma, R. Y. (2006). An Empirical Analysis of the Relationship between Regional Financial Development and Economic Growth in China. *Finance Teaching and Research*, 2, 2-5.
- McKinnon, R. I. (1973). *Money and Capital in Economic Development*. Washington, DC: The Brookings Institution.
- Patrick, H. T. (1966). Financial Development and Economic Growth in Underdeveloped Countries. *Economic Development and Cultural Change*, 14, 174.
<https://doi.org/10.1086/450153>
- Ran, G. H. (2006). Regional Differences in the Relationship between Financial Development and Economic Growth in China—Based on the Test and Analysis of the Eastern and Western Panel Data. *China Soft Science*, 2, 102-110.
- Schumpeter, J. (1911). *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Cambridge, MA: Harvard University Press.
- Shaw, E. S. (1973). *Financial Deepening in Economic Development*. New York: Oxford University Press.
- Wang, J. W. (2005). Financial Development and Economic Growth: An Empirical Analysis Based on China's Regional Financial Development, *Finance and Trade Economics*, 10, 23-26+96.
- Wu, Y. Z. (2009). Empirical Analysis on Regional Financial Development and Economic Growth—Based on Prefecture Level City data of Ten Provinces in East China and Quantile Regression Method. *Statistics Education*, 3, 12-17.
- Wu, Y. Z. (2010). Empirical Analysis on Regional Financial Development and Economic Growth—Based on the Six Central Provinces City Data and Quantile Regression Method. *Economic Research Guide*, 12, 115-118.

- Xu, J. (2007). The Analysis of the Coordination of Regional Financial Development and Economic Growth—An Analysis of the Regional Impact of Macro Regulation. *Financial vertical and horizontal*, 3, 32-34.
- Zhou, H. W., & Zhong, Y. H. (2004). China's Financial Intermediary Development and Regional Economic Growth: A Multivariable VAR System Analysis. *Financial Research*, 6, 130-137.

Appendix

Table A1. Gross domestic product (100 million yuan).

State	2005	2006	2007	2008	2009	2010	2011
Urumqi	562.5007	654.3023	820.2800	1020.3500	1087.5000	1338.5172	1700.0000
Karamay	385.7256	473.2562	515.1297	661.2100	480.2900	711.3532	800.0000
Shihezi	53.7455	61.8382	73.2468	90.9700	108.3600	134.9995	243.2700
Turpan	119.7738	148.2271	172.0268	201.2300	154.5800	182.7866	217.5000
Hami	68.5715	77.6355	91.9912	126.9000	130.3200	167.3848	217.8200
Changji	251.6925	295.9704	313.1995	388.1500	444.7100	557.9917	702.0000
Yili	373.0401	444.6349	539.6630	670.0900	735.8700	885.0339	1091.8400
Tacheng	143.9680	167.8464	203.9121	261.2100	284.8200	341.9047	353.3000
Aletai	60.5144	80.6145	99.2804	117.6500	117.3900	134.8644	162.9400
Bozhou	55.4598	63.1628	77.0414	88.2200	100.9600	131.4500	151.6000
Bazhou	325.6885	409.7582	469.0028	585.7600	525.9400	640.1378	800.0000
Akesu	170.4286	193.7736	231.5179	273.1200	320.4500	396.1175	778.7800
Tomsk	17.4718	19.7129	23.7132	27.6800	32.4600	38.8757	44.5516
Kashi	136.0000	183.2222	239.1600	238.5700	284.2400	359.9718	467.3000
Hetian	48.7832	55.3429	63.6962	74.5200	88.5800	103.4972	126.6300

Data source: Xinjiang fifteen prefectures “national economic and social development statistics bulletin 2005-2011”.

Table A2. Per capita gross domestic product (yuan).

State	2005	2006	2007	2008	2009	2010	2011
Urumqi	25,507	28,261	31,140	37,343	38,249	43,039	52,925
Karamay	88,562	96,006	98,398	100,216	87,000	121,387	211,529
Shihezi	17,854	20,395	23,797	29,073	34,421	42,816	38,961
Turpan	20,580	25,252	28,907	33,332	25,741	29,828	34,674
Hami	12,865	14,354	16,910	22,887	23,055	29,375	37,694
Changji	15,169	17,666	20,893	25,411	28,520	35,554	43,251
Yili	8759	10,345	12,349	15,054	16,221	19,479	23,790
Tacheng	11,113	12,872	15,451	19,587	20,784	23,562	26,719
Aletai	10,822	14,288	17,412	20,379	19,903	22,406	26,799
Bozhou	12,188	13,598	16,437	18,573	21,130	27,374	33,040
Bazhou	27,302	33,689	37,466	45,669	39,467	46,955	58,565
Akesu	7620	8471	9898	11,413	13,098	15,872	30,388
Tomsk	3654	4051	4712	5350	6183	7202	8476
Kashi	3682	4869	6236	6108	7085	8748	10,558
Hetian	2712	3005	3405	3928	4583	5181	6154

Data source: Xinjiang fifteen prefectures “national economic and social development statistics bulletin 2005-2011”.

Table A3. Total investment in fixed assets (billion yuan).

State	2005	2006	2007	2008	2009	2010	2011
Urumqi	220.2909	248.6804	315.0310	380.1799	598.0250	690.0569	635.0000
Karamay	134.5609	207.5271	286.1913	238.9397	186.6073	193.4056	209.6000
Shihezi	31.0157	35.5352	54.9008	60.6211	69.7916	102.3823	200.3600
Turpan	41.5629	55.7363	61.3575	81.5173	80.4752	94.3186	134.8000
Hami	17.0658	32.0458	39.7082	63.0731	95.6549	149.2069	307.8700
Changji	83.7217	111.4195	112.5342	141.9867	205.0815	298.8210	508.8000
Yili	151.3349	181.3077	194.0315	268.9166	395.5974	602.0137	734.1900
Tacheng	46.8332	57.4896	67.6355	83.8981	124.3716	187.8818	187.4000
Aletai	27.9728	31.2107	38.2171	55.2065	77.9338	112.3135	127.8400
Bozhou	16.5366	19.1529	26.4830	30.0290	47.2660	67.9162	74.3682
Bazhou	160.0939	195.2750	210.0681	249.3021	252.8522	310.2994	416.7000
Akesu	74.1326	104.4280	113.3263	106.9756	234.0250	181.6968	252.1000
Tomsk	9.4918	10.3283	12.1096	15.7207	27.3966	31.8417	46.3934
Kashi	62.0503	92.3041	115.8147	147.6014	219.3749	301.7657	384.1900
Hetian	28.4207	32.4864	43.4951	57.0045	76.1074	84.3432	120.9500

Data source: Xinjiang fifteen prefectures "national economic and social development statistics bulletin 2005-2011".

Table A4. Total financial expenditure (100 million yuan).

State	2005	2006	2007	2008	2009	2010	2011
Urumqi	41.6980	49.5342	68.3153	99.3534	163.5900	208.2300	299.7100
Karamay	28.4139	34.7690	42.8248	46.5476	42.7153	54.7711	70.8000
Shihezi	5.5033	6.8537	8.4440	10.9640	14.0114	17.2440	21.2224
Turpan	9.5549	13.3250	16.5740	22.9677	25.9159	33.2106	49.1000
Hami	10.1766	13.0768	16.3823	23.4935	29.3562	38.6270	58.8200
Changji	22.5949	30.8067	34.4146	49.7816	70.8200	98.6000	155.3900
Yili	68.9285	87.5453	113.4352	154.3933	199.2916	264.6054	396.6700
Tacheng	18.9016	25.4619	32.3630	42.9826	48.9470	68.5169	98.0300
Aletai	15.2517	18.7916	25.4934	36.7277	52.7425	67.8883	91.6800
Bozhou	9.3148	10.9711	15.3008	20.1823	24.9022	31.5170	44.1800
Bazhou	24.7944	31.9573	39.6809	55.3026	66.5735	88.0084	143.6000
Akesu	31.3866	40.8242	53.8450	74.6619	86.4291	114.3958	182.0300
Tomsk	11.2770	14.6184	17.8392	24.8689	33.8557	41.9683	43.8000
Kashi	36.9194	45.6890	60.7616	95.1401	142.7919	188.0404	266.7500
Hetian	21.2870	28.5216	35.1057	51.2069	75.2167	97.6442	129.8500

Data source: Xinjiang fifteen prefectures "national economic and social development statistics bulletin 2005-2011".

Table A5. Total export trade (100 million yuan).

State	2005	2006	2007	2008	2009	2010	2011
Urumqi	117.0215	161.4809	262.5416	333.8153	202.8051	300.3993	432.9138
Karamay	3.6303	2.9653	4.2174	4.9887	7.1952	17.2672	27.7840
Shihezi	8.4145	9.3848	17.2240	24.2103	11.4694	29.7708	53.5081
Turpan	0.0221	0.1515	0.2936	0.4217	0.6237	0.4414	1.5570
Hami	1.1112	3.5745	3.1060	3.4726	3.2837	1.1984	1.2748
Changji	58.2944	102.8693	174.9618	240.9685	131.6537	129.7784	125.7192
Yili	157.6445	177.0013	237.5507	482.7679	272.0301	285.4976	273.4807
Tacheng	35.2618	32.5080	56.9977	69.1924	56.1769	35.9678	16.8584
Aletai	1.6726	0.9465	2.9827	18.6304	31.5221	46.0536	55.3064
Bozhou	54.7428	61.2636	38.2561	53.5524	27.2848	24.4432	66.2294
Bazhou	1.5398	6.6204	18.0790	31.0548	5.9150	7.3215	6.5990
Akesu	0.3065	0.9010	1.5526	5.5772	9.2445	17.4047	20.0303
Tomsk	3.0264	5.0727	18.0326	19.4530	8.0382	3.6851	5.4759
Kashi	7.2885	37.8199	98.8406	136.9902	59.7687	60.4245	66.4232
Hetian	0.0763	0.1411	0.3971	3.6394	0.0348	0.4760	0.2748

Data source: Xinjiang fifteen prefectures “national economic and social development statistics bulletin 2005-2011”.

Table A6. Total wages (\$100 million).

State	2005	2006	2007	2008	2009	2010	2011
Urumqi	101.9455	112.6626	146.3601	167.6761	181.9507	211.3978	236.9769
Karamay	28.4199	35.0244	42.4259	48.4175	50.8002	63.2192	72.2595
Shihezi	12.0215	14.3123	18.5790	23.3870	27.1899	36.3814	41.8022
Turpan	14.1283	18.8193	23.1334	22.0864	22.7415	26.9723	30.1550
Hami	11.8124	13.5135	16.5900	19.2893	22.4603	26.0785	31.8418
Changji	31.1375	35.0293	39.0283	46.7668	55.0647	66.0406	73.4371
Yili	70.7289	80.7528	94.4421	111.8837	126.6086	149.5426	174.3667
Tacheng	25.8118	28.7877	33.0023	40.0258	43.1030	51.2321	61.4785
Aletai	13.7802	15.8117	18.3798	20.6836	23.2427	27.3471	31.4902
Bozhou	10.1499	11.4816	13.1984	15.3700	17.9039	22.4261	24.9602
Bazhou	29.0863	32.4044	36.0358	45.6398	50.7539	57.5670	61.7118
Akesu	30.7778	34.4610	39.7962	35.8103	40.6573	51.5495	59.6428
Tomsk	5.5218	6.5581	7.8788	9.2074	9.2480	11.3158	13.8459
Kashi	28.8130	32.7666	37.7626	38.7920	44.0980	55.1953	62.7019
Hetian	12.8642	15.2101	18.0089	20.2184	22.8493	27.7426	27.2592

Data source: Xinjiang fifteen prefectures “national economic and social development statistics bulletin 2005-2011”.

Table A7. Deposit balance (100 million yuan).

State	2005	2006	2007	2008	2009	2010	2011
Urumqi	1410.0300	1685.5400	2056.0900	2371.9600	2935.1800	3596.4300	4080.5000
Karamay	231.9000	272.7000	285.9000	320.4800	489.9000	792.5000	860.8000
Shihezi	126.4700	144.5000	159.4500	185.8600	225.6400	296.2700	356.1900
Turpan	64.0100	76.5000	81.1000	82.2000	100.2000	131.3000	148.9000
Hami	115.2700	135.8200	148.0700	163.2600	193.2400	257.2900	316.0000
Changji	213.5900	247.0500	264.5900	322.4800	433.9000	562.3700	655.0200
Yili	402.2700	478.5500	533.5800	632.9600	789.7600	1019.6300	1251.7400
Tacheng	103.5400	116.5000	123.5400	147.9600	193.6250	239.2900	303.5200
Aletai	64.8200	88.1900	97.4200	118.1500	145.5700	190.6100	239.9400
Bozhou	69.6600	76.4700	84.3300	99.0400	123.1400	156.0200	195.2600
Bazhou	244.8400	286.5200	291.6000	349.1000	425.9500	554.4400	664.8600
Akesu	242.8900	282.5000	311.7700	353.8700	442.2000	535.3500	699.1300
Tomsk	24.5100	29.5300	33.2800	43.0500	52.6900	70.1900	93.5023
Kashi	211.4200	230.9549	258.3000	321.5800	399.5400	550.6500	698.7800
Hetian	60.9300	74.0200	86.3500	109.2200	145.8000	196.1200	274.7200

Data source: Xinjiang fifteen prefectures "national economic and social development statistics bulletin 2005-2011".

Table A8. Savings deposit (100 million yuan).

State	2005	2006	2007	2008	2009	2010	2011
Urumqi	595.5200	678.1600	679.5300	872.2200	1040.7100	1242.8500	1470.3400
Karamay	71.5311	92.7603	120.2900	155.9900	132.6872	150.6000	214.3000
Shihezi	90.4000	100.9000	101.1000	123.4500	147.2100	183.5100	226.1500
Turpan	40.7200	45.8000	43.7000	52.7000	62.5000	77.2000	87.2000
Hami	75.4600	82.4300	79.9900	94.5900	111.7200	137.0500	166.9000
Changji	141.1800	160.0200	160.5300	169.2200	246.6000	293.1100	330.0900
Yili	254.1000	286.3200	300.4500	362.8300	430.2700	520.4100	637.2900
Tacheng	68.9300	73.9300	73.3400	91.2000	113.7500	136.3000	172.2500
Aletai	35.9000	42.6000	45.6400	57.5800	68.8600	80.9200	98.4200
Bozhou	39.2400	41.5800	40.0900	49.5800	58.2800	75.4300	92.0800
Bazhou	146.1800	162.8400	161.8200	201.5800	247.1700	314.8100	364.7400
Akesu	149.1700	164.6500	168.9300	203.5800	244.8700	313.1100	374.1400
Tomsk	13.6700	15.9500	16.1300	18.9100	23.1100	28.6400	35.4933
Kashi	123.8000	153.3078	168.8000	221.4500	205.8000	250.8000	316.6000
Hetian	30.3000	37.1800	41.9700	47.4500	59.2100	80.9900	107.7800

Data source: Xinjiang fifteen prefectures "national economic and social development statistics bulletin 2005-2011".

Table A9. Loan balance (billion yuan).

State	2005	2006	2007	2008	2009	2010	2011
Urumqi	983.8900	1045.5400	1145.5400	1217.3200	1626.8800	2074.7400	2553.9800
Karamay	42.0900	47.5000	49.8100	49.8000	183.9000	195.6000	132.7000
Shihezi	73.6800	94.0400	104.1100	138.6600	135.9700	182.4700	248.0500
Turpan	23.0400	21.5000	22.8000	28.7000	41.3000	74.5000	82.8000
Hami	43.7800	44.7000	47.0900	50.3600	69.6800	115.0600	153.5600
Changji	168.3200	175.5100	177.5300	203.3000	250.8000	347.0500	435.3400
Yili	229.7800	229.2500	261.6800	244.0900	323.4700	459.5900	603.5600
Tacheng	60.9600	57.6600	70.6600	59.7700	89.5700	119.3700	158.6800
Aletai	34.0900	35.9400	39.5500	39.0100	49.2300	73.3700	95.3800
Bozhou	48.4200	47.0500	58.7000	38.0500	55.9900	69.4400	92.2600
Bazhou	136.0200	130.9500	139.4900	137.7200	198.1500	267.5000	361.5600
Akesu	120.2400	124.7200	146.7100	152.6200	193.0300	261.7900	358.8200
Tomsk	9.6000	10.0000	12.5800	12.6600	16.9200	24.9400	36.7614
Kashi	88.6700	84.2963	88.4100	87.0000	97.7800	151.7000	217.1000
Hetian	24.7100	24.2300	29.5600	24.4900	29.9000	38.1000	55.1700

Data source: Xinjiang fifteen prefectures “national economic and social development statistics bulletin 2005-2011”.

Table A10. Premium income (100 million yuan).

State	2005	2006	2007	2008	2009	2010	2011
Urumqi	20.6254	26.1457	31.6144	49.012938	50.320372	63.789521	66.67
Karamay	5.8874	6.7336	7.8051	10.011798	9.906734	11.871814	11.6
Shihezi	3.4383	3.9349	4.8862	7.888696	9.359043	9.435499	12.65
Turpan	1.9114	2.2516	2.5384	3.478531	3.735958	4.419138	5.1
Hami	2.4868	3.2179	3.4145	6.49405	5.827873	7.63388	8.17
Changji	7.94	8.9477	11.3906	14.734041	14.279927	17.769373	20.19
Yili	10.58	12.09	15.46	21.21	22.06	26.64	29.53
Tacheng	2.8103	3.0744	3.776	5.493908	5.618627	6.859013	6.8632
Aletai	1.8953	2.089	2.3269	3.412528	3.686269	4.519042	4.816972
Bozhou	1.6779	1.8218	2.2314	3.668756	4.171859	4.964398	5.56
Bazhou	6.1803	7.0472	9.7361	12.71994	13.272254	15.317405	16.61
Akesu	4.0059	5.2619	6.9031	10.032119	10.594636	13.08034	15.14
Tomsk	0.3422	0.3822	0.4189	0.53122	0.586678	0.78818	0.989682
Kashi	3.8858	4.528	5.7096	9.340099	9.672673	10.900516	11.6
Hetian	0.9776	1.1188	1.4012	1.733428	1.910781	2.589282	3.14

Data source: Xinjiang fifteen prefectures “national economic and social development statistics bulletin 2005-2011”.

Table A11. Financial related ratio (FIR).

State	2005	2006	2007	2008	2009	2010	2011
Urumqi	1.749136	1.597946	1.396523	1.193042	1.495982	1.550029	1.502341
Karamay	0.109119	0.100368	0.096694	0.075316	0.382894	0.274969	0.165875
Shihezi	1.370905	1.520743	1.421359	1.524239	1.254799	1.351635	1.019649
Turpan	0.192363	0.145048	0.132537	0.142623	0.267176	0.407579	0.38069
Hami	0.638458	0.575768	0.511897	0.396848	0.534684	0.687398	0.704986
Changji	0.668753	0.592998	0.566827	0.523767	0.563963	0.621963	0.620142
Yili	0.615966	0.515592	0.484895	0.364265	0.439575	0.519291	0.552792
Tacheng	0.423427	0.343528	0.346522	0.22882	0.314479	0.349132	0.449137
Aletai	0.563337	0.445826	0.398367	0.331577	0.419371	0.544028	0.585369
Bozhou	0.873065	0.7449	0.761928	0.431308	0.554576	0.528262	0.608575
Bazhou	0.417638	0.319579	0.297418	0.235113	0.376754	0.417879	0.45195
Akesu	0.705515	0.643638	0.633688	0.558802	0.602372	0.66089	0.460746
Tomsk	0.549457	0.507282	0.530506	0.45737	0.521257	0.641532	0.825144
Kashi	0.651985	0.460077	0.369669	0.364673	0.344005	0.421422	0.464584
Hetian	0.506527	0.437816	0.464078	0.328637	0.337548	0.368126	0.435679

Note: Financial Related Ratio FIR = Financial Institutions Loan/Nominal GDP.

Table A12. Financial intermediation efficiency (FAE).

State	2005	2006	2007	2008	2009	2010	2011
Urumqi	0.697779	0.6203	0.557145	0.513213	0.554269	0.576889	0.625899
Karamay	0.181501	0.174184	0.174222	0.155392	0.375383	0.246814	0.154159
Shihezi	0.582589	0.650796	0.652932	0.746045	0.602597	0.615891	0.696398
Turpan	0.359944	0.281046	0.281134	0.349148	0.412176	0.567403	0.556078
Hami	0.379804	0.329112	0.318025	0.308465	0.360588	0.4472	0.485949
Changji	0.788052	0.710423	0.670963	0.630427	0.578013	0.61712	0.664621
Yili	0.571208	0.479051	0.490423	0.385633	0.40958	0.450742	0.482177
Tacheng	0.588758	0.494936	0.57196	0.403961	0.462595	0.498851	0.522799
Aletai	0.525918	0.407529	0.405974	0.330174	0.338188	0.384922	0.397516
Bozhou	0.69509	0.615274	0.696075	0.384188	0.454686	0.445071	0.472498
Bazhou	0.555546	0.457036	0.478361	0.3945	0.465195	0.482469	0.543814
Akesu	0.495039	0.441487	0.470571	0.431288	0.436522	0.489007	0.513238
Tomsk	0.391677	0.338639	0.378005	0.294077	0.321124	0.355321	0.393161
Kashi	0.419402	0.36499	0.342276	0.270539	0.244731	0.275493	0.310684
Hetian	0.405547	0.327344	0.342328	0.224226	0.205075	0.194269	0.200823

Note: Financial intermediation efficiency FAE = Loan/Deposit.

Table A13. Financial savings structure (FSS).

State	2005	2006	2007	2008	2009	2010	2011
Urumqi	0.422346	0.40234	0.330496	0.367721	0.354564	0.345579	0.360333
Karamay	0.308457	0.340155	0.420742	0.486739	0.270846	0.190032	0.248954
Shihezi	0.714794	0.69827	0.634055	0.66421	0.652411	0.619401	0.634914
Turpan	0.636151	0.598693	0.538841	0.641119	0.623752	0.587966	0.585628
Hami	0.654637	0.606906	0.540217	0.579383	0.578141	0.532667	0.528165
Changji	0.660986	0.647723	0.606712	0.524746	0.568334	0.521205	0.503939
Yili	0.631665	0.598307	0.563083	0.573227	0.544811	0.510391	0.509123
Tacheng	0.665733	0.634592	0.593654	0.616383	0.587476	0.569602	0.567508
Aletai	0.553841	0.483048	0.468487	0.487347	0.473037	0.424532	0.410186
Bozhou	0.563307	0.543743	0.475394	0.500606	0.473282	0.483464	0.471576
Bazhou	0.597043	0.568337	0.554938	0.577428	0.580279	0.567798	0.548597
Akesu	0.614146	0.582832	0.541842	0.575296	0.553754	0.58487	0.535151
Tomsk	0.557732	0.540129	0.484675	0.439257	0.438603	0.408035	0.379598
Kashi	0.585564	0.6638	0.653504	0.688631	0.515092	0.455462	0.453075
Hetian	0.497292	0.502297	0.486045	0.434444	0.406104	0.412961	0.392327

Note: financial savings structure FSS= resident savings/all deposits.

Table A14. The depth of insurance (IND).

State	2005	2006	2007	2008	2009	2010	2011
Urumqi	0.036667	0.03996	0.038541	0.048035	0.046272	0.047657	0.039218
Karamay	0.015263	0.014228	0.015152	0.015142	0.020627	0.016689	0.0145
Shihezi	0.063974	0.063632	0.066709	0.086718	0.08637	0.069893	0.052
Turpan	0.015958	0.01519	0.014756	0.017286	0.024168	0.024176	0.023448
Hami	0.036266	0.041449	0.037118	0.051175	0.04472	0.045607	0.037508
Changji	0.031546	0.030232	0.036369	0.03796	0.032111	0.031845	0.028761
Yili	0.028362	0.027191	0.028648	0.031652	0.029978	0.030101	0.027046
Tacheng	0.01952	0.018317	0.018518	0.021033	0.019727	0.020061	0.019426
Aletai	0.03132	0.025913	0.023438	0.029006	0.031402	0.033508	0.029563
Bozhou	0.030254	0.028843	0.028964	0.041586	0.041322	0.037766	0.036675
Bazhou	0.018976	0.017198	0.020759	0.021715	0.025235	0.023928	0.020763
Akesu	0.023505	0.027155	0.029817	0.036732	0.033062	0.033021	0.019441
Tomsk	0.019586	0.019388	0.017665	0.019191	0.018074	0.020274	0.022214
Kashi	0.028572	0.024713	0.023874	0.03915	0.03403	0.030282	0.024823
Hetian	0.02004	0.020216	0.021998	0.023261	0.021571	0.025018	0.024797

Note: insurance depth IND = premium income/GDP.