Retraction

Retraction: The Construction Practice of National Rural Financial System Based on Computer Intensive Technology (J. Phys.: Conf. Ser. 1744 022031)

Published 16 September 2022

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The authors of the article have been given opportunity to present evidence that they were the original and genuine creators of the work, however at the time of publication of this notice, IOP Publishing has not received any response. IOP Publishing has analysed the article and agrees there are enough indicators to cause serious doubts over the legitimacy of the work and agree this article should be retracted. The authors are encouraged to contact IOP Publishing Limited if they have any comments on this retraction.

Retraction published: 16 September 2022
The Construction Practice of National Rural Financial System Based on Computer Intensive Technology

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Abstract. "Credit capital" is a key factor in eliminating adverse selection and moral hazard in the country's rural financial market. "Internet finance mode" is an important way for small and micro enterprises to reduce financing costs. Based on computer intensive technology, this article integrates elements on the Internet platform to build a national rural financial "three-element" credit system under the background of big data, which can effectively solve the financing difficulties, high financing costs, and high financing risks of rural small and micro enterprises Paradox, to achieve a win-win situation of a "virtuous circle" of rural small and micro enterprises, Internet financial enterprises, insurance companies and government departments.

Keywords: Credit Capital, Internet Finance, Intensive Insurance, Small and Micro Enterprises

1. Introduction
Rural small and micro enterprises' financing difficulties, high financing costs, and high financing risks have always been a global problem, which has attracted the attention of the theoretical and practical circles. In China, as the most active subject of the market economy, small and micro enterprises are an important carrier for increasing employment and an indispensable driving force for economic development [1-2]. Therefore, studying the financing problems in the production process of rural small, medium and micro enterprises and finding ways to solve them has important theoretical value and practical significance.

Looking back on the development of Internet finance in the past two years, whether banks with traditional business models or Internet companies that rely on Internet platforms to make their fortunes, have transformed to Internet finance and established their own Internet finance centers [3]. The speed of the development of financial model innovation has to be awe-inspiring. For example, P2P network credit platforms, financial crowdfunding network platforms, online payment platforms, mobile payment platforms, e-commerce microfinance network platforms, etc. have sprung up like mushrooms [4]. While lamenting the development of the Internet financial model, I can't help but ponder whether this model can solve the problems that the traditional financial industry cannot solve [5-6]. Among them, the most realistic is the one mentioned at the beginning of the article: Can the Internet finance model help small and micro enterprises solve financing problems? Are there other conditions required? What
is its theoretical basis?

Based on this realistic background, this article is based on computer intensive technology, through the construction of a rural factor credit model system, systematically analyzes and studies the above problems, and provides a theory for the application of the Internet finance model supported by big data in the financing of small and micro enterprises. The foundation and practice for the rural financial system at the same time have strong practical significance.

2. The impact of the global financial crisis on my country’s financial system

As China’s financial regulatory authorities impose strict controls on overseas credit derivatives transactions by financial institutions, the amount of subordinated bonds held by Chinese financial institutions is relatively small, and losses should be controlled within tens of billions of yuan. In terms of the capital market, China implements strict controls on capital projects. China’s capital market is separate from the international capital market. The sharp drop in the price of bond-related assets in the international capital market has not spread to the Chinese capital market. The financial correlation ratio formula As shown in formula (1), Therefore, the direct impact of the financial crisis on China is limited, and the impact on China’s capital market is mainly limited to psychological shocks. Recently, China’s stock market has dropped by more than 60%, far exceeding the adjustment range of the US and European markets, showing that Chinese investors are over-paniced in the face of external shocks. But if there are problems in the physical economy, the financial crisis may have a substantial impact on China’s financial market. The level of asset securitization of Chinese financial institutions is relatively low, and the risk of default on mortgages is concentrated in commercial banks. If real estate prices fall sharply, the financial system will be severely impacted and credit risks will spread to the entire capital market. The flow of hot money and the interactive relationship between Hong Kong and the mainland market may have a substantial impact on China’s capital market in the event of a sharp decline in China’s physical economy or a sharp drop in the Hong Kong stock market.

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FIR = \frac{F_r}{W_r} = \beta^*_r \left[ \left( \gamma + \pi + \pi^* \right)^{-1} + 1 \right] \left[ k\eta + \varphi(1 + \lambda) + \xi \right] + \theta \left[ 1 + \varphi \right] - 1
\]

In the formula, \( r \) —— cut-off ratio, which means cut-off time; \( F_r \) —— total financial activity in a fixed period; \( W_r \) —— total market value of national wealth; \( \beta \) —— average capital output rate; \( \gamma \) —— GNP actual growth rate; \( \pi \) —— price change rate; \( k \) —— the ratio of gross capital formation to gross national product; \( \eta \) —— the ratio of external financing; \( n \) —— the ratio of the issuance of non-financial sector financial instruments to the gross value of capital formation; \( \varphi \) — The ratio of financial instruments issued by financial units to the gross national product; \( \lambda \) — the stratified ratio, the ratio of the financial instruments issued by a certain type of financial institution to other financial institutions to the total issuance of the non-financial sector; \( \xi \) — Net overseas debt ratio. The ratio of foreign issuance to gross national product; \( \theta \) — the ratio of the net issuance of financial instruments affected by price fluctuations; \( warphi \) — the average price change ratio of price-sensitive assets.

3. The status quo and main pressures of my country’s rural financial system

3.1. The current situation of my country’s rural financial system

For more than 40 years of reform and opening up, the Chinese government has been committed to the reform of the rural financial system and has established a formal financial sector consisting of four parts: the Agricultural Bank of China, Agricultural Development Bank, Rural Credit Cooperatives and Postal Savings. Previous studies on the reform of the rural financial system often only focused on the analysis of the formal sector, while ignoring the informal sector. In fact, the informal sector is an important part of the rural financial system (as shown in Figure 1).

The introduction of new financial institutions not only leaves room for the development of informal finance, but more importantly because they will promote competition in the Yimura financial market.
and create the necessary environment for the reform of formal financial institutions. Rural formal financial reform may not be completed in a short period of time, but like the logic of state-owned enterprise reform, competition in the rural financial market can show the policy burden of formal financial institutions, thus providing sufficient information for reform decisions. At the same time, the competitive market environment can also overcome the failure of Rongxindu's bankruptcy restraint without reducing rural financial services, creating conditions for the reorganization, transformation and merger of formal finance by private capital, thereby prompting the improvement of formal financial institutions. Efficiency and improving profitability will reduce the cost of the central government's control of Yicun's formal financial institutions.

Figure 1. My country's rural financial system

3.2. The main problems of my country's rural financial system

In addition to their own operating risks, rural financial institutions also face higher systemic risks than urban operations. The lagging development of clothing industry insurance and credit mortgage guarantees is also an important reason for the high rate of non-performing loans of financial institutions.

It is difficult for farmers and rural dingye enterprises to borrow funds. Because there are no mortgageable assets, it is almost impossible for farmers to obtain the necessary funds for production and operation under the current system, and most township and village enterprises are private small and medium-sized enterprises. The lack of credit guarantees and the lack of mortgage conditions also make it difficult to obtain the necessary funds from financial institutions. financial support.

The development of agricultural insurance and credit mortgage guarantees has not yet met the needs of farmers. The current scale of agricultural insurance is not commensurate with the rural economy's demand for agricultural insurance. As an important tool to promote the stable development of the rural economy and the deepening of the rural financial market, the clothing industry insurance is an indispensable part of rural finance. The lagging development of agricultural insurance, on the one hand, has led to the lack of guarantee for the steady growth of "agriculture, rural areas and farmers"; on the other hand, it has also led to higher credit risks in the rural financial market.

The lack of collateral guarantees makes it difficult for farmers to obtain loans. How to use part of the fiscal funds to guide rural areas to carry out mortgage guarantee innovation is a problem worth exploring. Internationally, countries such as the Netherlands have adopted financial contributions to establish guarantee funds and other forms to promote the development of rural credit; the United States, through the use of agricultural protection purchase prices as the pricing basis, requires credit departments to use agricultural products for mortgage guarantees. my country should learn from...
international experience and vigorously promote the innovation of Yicun credit mortgage guarantee.

The lack of supervision of rural financial institutions leads to a high risk profile. The asset quality of rural financial institutions is generally not high. At the same time, the capital adequacy ratio of Yicun financial institutions is seriously insufficient. The relevant financial experts stated that “it's hard to say how much the difference in capital adequacy ratios between urban and rural financial institutions is, because rural financial institutions are basically negative. Financial risks have shifted from the problem of non-performing assets to unbalanced institutional development, unbalanced regional development, and unbalanced urban-rural development. "At present, the government lacks effective supervision of the rural financial market. After the reform, the Yixin Agency was handed over to the local government for management, but it was not given supervision functions. This institutional arrangement allows local governments to arbitrarily intervene in the daily operating activities of rural credit subsidies, but does not have to bear the corresponding risks and costs. If the administrative authority of the Provincial Union Duo is not restricted or regulated, a new round of large-scale losses is inevitable. At the same time, the inadequate supervision of rural finance has also contributed to the activity of private finance, and some private financial activities have become hotbeds that nurture the underground economy. In particular, the phenomenon of usury not only increases the production and operation costs of capital users, but also accompanies other crimes.

4. Realization of rural financial architecture under computer intensive technology

Rural financial behavior is a manifestation of the "economic rationality" of rural economic individuals, and the theoretical basis of financial innovation cannot be separated from the basic assumption of "maximum profit and minimum risk". Therefore, financial innovation and Yicun financial behavior can be effectively combined. my country's Yicun financial reform can meet the needs of both the supply and demand sides of the rural financial market through the design and development of new financial tools, improve the efficiency of financing, and even introduce non-agricultural funds to the rural sector. The rural financial market lacks an effective supply and demand medium, and the design and development of new financing tools can broaden the financing channels of funds, coordinate the different views of market participants on risks and returns, and use structural finance to change the nature of debt and target different rural areas. The economic characteristics of the industry design professional financing tools. Through technological methods such as recombination, divestiture and division of capital, maturity, interest and financing tools, and new financial instruments such as swap option convertible bond hybrid securities, the security can be improved without changing the investment income. It can ensure the stability of the source of rural funds, promote the exchange of funds between agriculture and non-agricultural sectors, and improve the financing efficiency of the entire financial market.

"Credit capital" is a key factor in eliminating adverse selection and moral hazard in the credit market for small and micro enterprises. "Internet finance mode" is an important way for small and micro enterprises to reduce financing costs. Intensive insurance is an effective guarantee for risk control of Internet financial enterprises. If these three elements are integrated on the Internet platform to build a “three-element” credit system for small and micro enterprises in the context of big data, it can effectively solve the financing paradox of small and micro enterprises' financing difficulties, high financing costs, and high financing risks. Achieve a "virtuous circle" win-win situation for small and micro enterprises, Internet financial companies, insurance companies and government departments. To this end, this article uses the combination of small financial institutions represented by small loan companies, guarantee institutions represented by insurance companies, and local governments to build a "three-element" credit system based on computer intensive technology (see Figure 2).

It is worth mentioning that if the "three-factor credit platform" model is successfully operated, first of all, it can solve the financing problems of small and micro enterprises and promote the stable development of the country's economy, which is in the national interest of China's economic development. Furthermore, the "three-factor credit platform" built on the basis of computer intensive technology can improve the construction of China's multi-level credit market and establish a credit
system suitable for China's national conditions. Finally, through years of accumulation of credit economic behavior of registered enterprises, the "three-trust platform" can also serve as the basis for my country to build a unified credit investigation system.

From the perspective of society and the bank's own benefits, the sharing of these disaster backup resources should be realized. The following modes can be considered to realize the sharing of disaster backup resources between banks: one mode is joint construction, where the children's bank will jointly fund the construction of a disaster backup center; the second mode is to make full use of the disaster backup established by other banks. The resources of the center will be paid to other banks for its own disaster backup construction and operation management; the third mode is mutual disaster backup, two banks of the same size use each other's computer resources to achieve mutual disaster backup; The fourth mode is social outsourcing. The bank outsources disaster backup construction and operation management to competent companies to operate. These companies can establish the bank's data center disaster backup site and equipment and other environments, or directly rent other commercial banks. A ready-made disaster backup environment.

![Figure 2. Three-factor credit system](image)

5. Conclusions
By combing the structure of the rural financial system, this paper conducts in-depth research on the use of Internet finance to solve the financing problems of rural small and micro enterprises. The analysis shows that the traditional credit model cannot eliminate adverse selection and moral hazard in the credit market, and cannot effectively solve the financing paradox of rural small and micro enterprises; and under the computer-intensive technology model, the "credit capital" and "credit capital" created by big data "Credit mortgage" can help rural small and micro enterprises with weaker strength and insufficient collateral to solve the financing paradox, while reducing enterprise costs and realizing safety assurance.

Acknowledgement
Xinjiang Uygur Autonomous Region Scientific Research Program in colleges and universities: Research on the economic growth transition of Xinjiang under the supply-side structural reform (Item number: XJEDU2018SY043).

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