

Empowering Rural Revitalization through Fintech Development

Visa

Executive Summary

The year 2022 is key for China to fully implement the rural revitalization strategy. China's Central Rural Work Conference called for strengthened focus on promoting rural industrial development and advanced integration of rural industries. In September 2020, Visa and the Development Research Center (DRC) of the State Council launched joint research on "Empowering rural revitalization in China through fintech development". The purpose of this paper is to explain key research findings and provide policy recommendations by DRC, with case studies from Visa as supplemental materials. The research shows that finance is an important force to promote the development of rural industries. Meaningful exploration has been carried out in many aspects and a lot of progress has been made. However, there are also areas for improvements, such as financial resources, targeted support and risk prevention capabilities. The advantages of fintech should be further leveraged to enhance accuracy in targeting financial support for rural revitalization and effectiveness of rural financial risk management.

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Building a modern rural industrial system is an important measure to comprehensively implement the rural revitalization strategy and accelerate agricultural and rural modernization. Relying on the advantages of rural areas, building an agricultural industrial value chain is of great significance to increase the income of the rural residents and revitalize rural areas. At present, rural industries are no longer limited to primary industries such as agriculture, forestry, animal husbandry and fishery, but are further extended to secondary and tertiary industries, forming a development pattern of a complete value chain. In 2020, the added value of the primary industry in China's rural areas was RMB 7.8 trillion, accounting for 47% of the total; the added value of the secondary industry was RMB 4.8 trillion, accounting for 29%; and the added value of the tertiary industry was slightly lower, at RMB 4 trillion, accounting for 24%. The secondary and tertiary industries have become an integral contributor to the rural industrial revitalization.¹

1. The main characteristics and constraining factors of rural industrial financial demand

Finance is an effective force to support the development of rural industries. Currently, indirect financing is still the main channel of financial support for rural areas, represented by agriculture-related loans; direct financing serves as a supplement, represented by equity and bonds. Overall, from 2013 to 2020, the balance of agriculture-related loans increased from RMB 20.6 trillion to RMB 38.9 trillion, with an average annual growth of RMB 2.61 trillion and 8.72%. Among them, agriculture-related loans grew rapidly in 2015 and 2016, with an average growth rate of 9.38%; growth slowed in 2017, 2018 and 2019, with a three-year average growth rate of 7.44%; and then increased rapidly of 11.24% in 2020. However, against the background of the overall continuous expansion of China's credit scale, the share of agriculture-related loans in total loans has declined, from 32.6% in 2013 to about 23% in 2020.²

Financial support for rural industrial development mainly targets businesses, with individuals and non-business organizations accounting for a relatively small proportion. From the perspective of the recipients of agriculture-related loans, businesses account for nearly 70% of the total loans, while individual loans account only for about 30%.³

As the characteristics of the primary, secondary, and tertiary industries in rural areas are quite different, financial support for the development of rural industries

¹ http://www.gov.cn/xinwen/2022-01/12/content_5667778.htm

² Source: People's Bank of China

³ Ibid.

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needs to adapt, given that rural industries are relatively dispersed, diversified and diverse. Appropriate financial products and services need to be provided according to the financial needs of different fields.

The financial demand of primary industries, particularly agriculture, forestry, animal husbandry and fishery, is relatively strong, and there is still room for improvement. Firstly, the demand for agriculture-related credit loans is diversified. Especially, with the increasing number of new agricultural operating entities and the intensification, scale and diversification of production, the demand for various loan products is also increasing. Agricultural insurance plays a more important role in providing agricultural production guarantee for farmers and industrial poverty alleviation projects, and gradually becomes an important source of funding for farmers to restore production in major agricultural disasters and the sustainable development of emerging agricultural industries. Second, with the promotion of the reform of collective forest tenure system, the demand for forest tenure loans is strong, but the supply of forestry financial services is obviously insufficient. Although related mortgage loans have reached a certain scale, most forest farmers, as the main body of forestry production, still do not enjoy the financing convenience, as major commercial banks and policy banks are mainly targeting forestry businesses and farmers with better production abilities. Third, the demand of animal husbandry finance is seasonal, as pastoral residents disperse and natural disasters and epidemics often bring about a large risk of asset loss. Fourth, the fishing industry has a great demand for R&D funding and hardware facilities. Fishery businesses need to upgrade their hardware facilities frequently and train personnel on technology. R&D costs of key aquaculture technologies are expensive, characterized by high investment and high risk.

The financial demand of rural secondary industries is characterized by large amount of capital demand and strong seasonal fluctuations. First, the corporate capital demand is generally large. Agricultural products processing businesses sit in the middle of the industrial supply chain, where the upstream is dominated by scattered farmers. The cost of purchasing raw materials is relatively high, requiring a large amount of advanced payments. As raw materials for agricultural and sideline products processing are often seasonal, and storage and transportation costs are high, businesses need a large amount of capital to support their operation. Second, time to acquire agricultural products is relatively fixed. If the cost for raw materials slightly increases during a certain acquisition period, businesses will need more capital to fund the purchase. If businesses miss the acquisition period due to insufficient funds, they will suffer serious losses. Third, the large-scale development and the improvement of industrial concentration brings new financing needs. In recent years, the entry threshold for agricultural products processing businesses has been significantly increased. Businesses with a certain

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scale and brand characteristics have accelerated their expansion, which improves the industrial concentration and intensifies the integration of industrial value chain.

The financial demand of rural tertiary industries is characterized by the rapid development of rural services industries in recent years, particularly rural tourism, rural e-commerce and agricultural production services. First, the development of rural tourism has promoted the rapid expansion of the homestay tourism market. Homestay projects involve the cost of fixed assets such as housing construction, decoration, facilities, and equipment, as well as the daily operation cost, which has a large investment demand. Second, rural e-commerce requests fast capital turnover and wide circulation range. The mortgageable assets of rural e-commerce businesses are limited, and banks are still insufficient to provide credit support to them. Third, rural production services include transportation and storage, postal and information transmission, wholesale and retail, leasing and other forms of business, and their financial demands are increasingly diversified. At present, rural financial services products are mainly based on savings, mortgage loans and rural micro-credit services, so it is difficult to meet the diversified and multi-level financial needs in the rural areas.

2. China Practices

In agriculture, forestry, animal husbandry and fishery, big data and IoT technologies can be used for real-time and precise monitoring, and rural financial risks can be controlled through scientific and technological means.

Based on sensor, GPS and other technologies, farmers can continuously collect real-time data in agricultural operation, which helps increase output, improve quality, save manpower and improve economic benefits. For example, living mortgage loan is an important way to finance animal husbandry. In Inner Mongolia, Gansu and other pastoral areas, through the installed sensors for cattle, the GPS technology can provide real-time and three-dimensional positioning and precise timing, which helps improve cattle identification and dynamic monitoring. This provides basis for new financing products such as "living mortgage" and "farm mortgage".

Fintech can facilitate cluster development of agricultural production and processing. Developing industrial clusters with high specialization is an effective way to revitalize rural counties and towns. However, due to geographical dispersion, small scale of production, low capabilities of personnel and other factors, the agglomeration degree of rural SMEs is not high, and the production process is not well standardized. Using artificial intelligence, cloud computing and other financial technologies can effectively solve the above problems, and provide scientific decision-making reference for financial support of agricultural products processing.

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Fintech can support product distribution management to improve efficiency and create more sales channels. In product distribution, blockchain and IoT technologies can be used to manage and trace product information; a quality and safety tracing system can be built through internet websites and mobile SMS platforms; these can help improve the efficiency of product distribution management. In product sales, e-commerce platforms are used for online marketing to maximize online and offline integration, efficiently integrate information resources, reduce transaction costs, and improve the relationship between suppliers and farmers.

In terms of financial infrastructure, 5G and mobile Internet can be used to improve the efficiency of payment and settlement. Expanding the coverage of 5G networks can help improve the network environment in rural areas and actively promote the establishment of an efficient payment service system without reducing the level of financial risk control. With the support of fintech, financial service infrastructure in rural areas will be continuously improved through the deployment of self-service banks and smart counters, and a "half-hour" financial service circle will be built in rural areas. The payment efficiency in rural areas can also be gradually improved by increasing the usage of mobile payment and QR payment.

3. International Experience for SME Digital Empowerment

SMEs are the backbone of the global economy, accounting for more than 90% of worldwide businesses and contributing between 50% to 60% of global employment.⁴ In China, MSBs contribute more than 50% of tax revenue, over 60% of its GDP, more than 70% of technological innovation and over 80% of urban employment⁵. The challenges small businesses face are evident in emerging markets. In fact, it is estimated that about 40% of formal micro, small and medium enterprises have an unmet financing need and about half don't have access to formal credit.⁶ The rural industrial development is not only driven by leading businesses, but also needs the contribution from thousands of SMEs.

A recent research paper from Visa⁷ concludes that the benefits of digitization for SMEs are increasingly understood to be multi-dimensional – involving new products and services, new ecosystems such as super-platforms, new ways of engaging labor, inventory, suppliers, payments, record-keeping, etc. The research

⁴ Kyaw, Aung, "Financing Small and Medium Enterprises in Myanmar," IDE Discussion Paper No. 148, April 2008 womensworldbanking.org

⁵ Source: Ministry of Industry and Information Technology (MIIT), Jun 4, 2020 [China Daily](http://china-daily.com)

⁶ [World Bank SME Finance: Development news, research, data | World Bank](https://www.worldbank.org/en/news/press-release/2020/06/04/world-bank-sme-finance)

⁷ *Empowering Participation in Commerce: New Strategies for Digitization of Micro and Small Businesses* <https://usa.visa.com/content/dam/VCOM/regional/na/us/about-visa/documents/empowering-participation-in-commerce.pdf>

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notes small businesses need to adopt multiple services, no longer a single product one at a time. The process is and will be ongoing and greater value is created when these services are integrated.

Greater digitization of commerce and safer, more reliable options have brought enormous benefits to businesses and consumers. By using digital payment capabilities and online marketplaces, many SMEs are better able to compete with larger firms through greater customer reach. In May 2021, Visa conducted an online survey⁸ of more than 1,000 business representatives in the United States. Survey responses indicated that more small businesses want improved internet connectivity, assistance with digital commerce, and digital payments than want direct financial support from governments.

- **SMEs are prioritizing digital capabilities.** When asked what they need most over the next three to six months, the majority of SMEs indicated a need to attract new customers and convince previous customers to return. In considering how to achieve this, respondents strongly prioritized digitization as the key to helping them get through the current crisis. SMEs indicate needing better internet connectivity, digitized workflows, and digital payment capabilities. They prioritize these needs over grants or loans.
- **Digital capabilities are helping business owners to move faster, serve their customers and employees better, and build resiliency.** Most businesses utilized digital resources to meet evolving customer needs; SMEs who used digital tools and online marketplaces exhibited greater resiliency in addition to agility and were more equipped to manage economic ambiguity.
- **Digital capabilities expand international trade opportunities for SMEs. Exporting SMEs used online marketplaces to reach international markets.** Small businesses account for 98% of all identified US exporters, supporting nearly four million jobs in communities across the United States through both direct and indirect exports. Although micro firms are less likely than others to export, digitization and use of online sales helps those that do want to export. 90% of micro exporters use online sales to export. This truly demonstrates that in a digital economy, a network that can connect buyers and sellers in many different markets can significantly amplify an individual firm's potential. Not only is it important for business resilience, but digital payments acceptance is often a gateway to international trade, as having the capacity to accept international payments

⁸ *Helping the Hardest Hit: Recovery and Resilience for Small Business in the United States*

<https://usa.visa.com/content/dam/VCOM/global/ms/documents/veei-us-small-business-in-the-digital-age.pdf>

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is essential to successfully importing and exporting. Interestingly, minority-owned firms were more likely to export to a larger number and less-traditional markets, implying a strong role for digital trade policy in enabling minority business owners to succeed. In addition to better internet connections and cybersecurity capabilities, respondents prioritized digital payments capabilities.

In China, the Beijing 2022 Winter Olympic Games are contributing to the expansion of tourism, culture, and winter sports sectors within China, especially in host cities and provinces. The Games bring more revenue and growth opportunities to local urban and rural businesses in the host provinces. Many micro and small businesses, however, do not have the capabilities or resources to take advantage of these opportunities. In order to address these gaps, Visa launched the “Beijing 2022 and Women Program” in December 2019 in partnership with the China Women’s Development Foundation and Beijing Sport University. The program targets to enable 5000 women-led micro and small businesses in host provinces (the Beijing-Tianjin-Hebei Regions, also known as Jing-Jin-Ji), through a diverse mechanism to build financial, digital, and business management skills and capabilities. The program also provides access to external resources and builds a local community of women small business owners for ongoing exchange, knowledge sharing and support.

In June 2021, the Beijing 2022 and Women program launched across the Beijing-Tianjin-Hebei region benefiting a larger number of women business owners. As of November 2021, 4,256 women micro and small business owners had registered and begun to participate in the enablement program. Enabling women-owned small businesses is a durable legacy of knowledge and peer networks to help local communities grow and thrive. Supporting the development of local small businesses and their greater participation in hosting of the Games contributes to the Olympic legacy of Beijing 2022 and the sustained, inclusive socio-economic development of Jing-Jin-Ji region. The program was featured as one of the legacy case studies which demonstrate the lasting impact of the Olympic and Paralympic Winter Games Beijing 2022 throughout the region. With measurable outcomes and human level stories, this program also provides a demonstration approach to cities hosting major sporting and other events around the world.

4. Policy Recommendations

Developing fintech is an important contributor to rural revitalization. There are still many constraints to the application of fintech in rural areas. First, developing fintech requires investments in both hardware and software, hence the use of fintech in rural areas is limited by low population density and weak industrial foundation. Second, the understanding of fintech among SMEs and farmers in

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rural areas is not deep enough, and the frequency of fintech usage is still low compared with that in cities. Third, fintech-related standards and guidelines are not well developed, so it is still difficult to achieve extensive and integrated application. In view of the main problems restricting the application of fintech in rural areas, the following policy recommendations are put forward:

First, the mobile Internet, IoT and other information infrastructure should become the main focus of rural infrastructure construction. Improved communication base station coverage and network bandwidth can provide basis for the application of 5G, big data, artificial intelligence, cloud computing and other technologies. Businesses should be encouraged to conduct new technology R&D for rural areas. An integrated agricultural financial services platform should be established to provide "the last mile" support to rural revitalization. We shall encourage small and medium-sized financial institutions to speed up their digital transformation and develop public fintech R&D capabilities. Large financial institutions should be encouraged to provide technological support to small and medium-sized financial institutions and help narrow the gap of insufficient R&D capacities. Based on the existing system of rural credit cooperatives, a fintech-oriented financial information system can be established at a provincial level. Third party service institutions should be encouraged to develop and share fintech solutions that are generally applicable and can be promoted at a large scale once mature.

Second, the fintech standards system should be further improved. Complete the agricultural IoT application standards, promote the use of IoT technology in modern agriculture, and increase integrated applications. Establish universal standards for agricultural data transmission protocols, data storage, and converged applications, improve the degree of interconnection and sharing, and promote industrial application of technologies. Strengthen data privacy protection in agriculture and rural areas and reduce the reluctance of rural businesses to use fintech for fear of market competition. Advance fintech education in rural areas, enhance the understanding of fintech tools and the enthusiasm in fintech application. Promote the integration of agriculture-related data, establish a data sharing mechanism between leading businesses and government authorities, enhance the data sharing of rural production and operation entities.

Third, strengthen the adaptation of financial support for rural revitalization to accommodate the increasingly active secondary and tertiary industries in rural areas. Promote the research, development and application of new technologies for rural industries, break the physical isolation between scattered rural households by means of information technology, achieve virtual convergence, and promote the organic connection between small rural households

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and modern rural industries. Promote agricultural market information services, agricultural product supply services, and green agricultural production technology services, and promote the large-scale, intensive, well-organized, and specialized development of various rural service providers. Financial technology should be strengthened to support the rural logistics system, and digital technology should be used to help rural areas extend the industrial value chain.

Fourth, selected areas where conditions permit can carry out demonstration projects. Implement key projects such as agricultural demonstration parks, work with financial institutions to improve the configuration of software and hardware and expand the impacts of the demonstration projects. Encourage financial institutions to pilot R&D innovation projects, collaborate with capable agricultural management entities, strengthen the technological transformation, configure hardware and software facilities, manage real-time production and operation status, reduce information asymmetry, and improve the agricultural credit risk control mechanism. Foster third-party professional service institutions and promote the interconnection between digital agriculture and fintech, for example, professional service institutions are encouraged to provide online monitoring and management services for planting and breeding and synchronously connect with the information systems of financial institutions.

Fifth, use fintech to enhance the risk control capabilities of financial institutions. Natural risk and market volatility risk are important challenges for financial support of agriculture and rural areas, which have a great impact on rural credit and agricultural insurance. Further expand the scope of fintech tools in decision-making processes. For example, satellite remote sensing can be used to predict crop yields, assess the impact of natural disasters such as floods and droughts, and forecast the price trend of agricultural commodities with meteorological forecasting technologies. Improve the policy incentive mechanism, provide fiscal and tax incentives and special funds to support fintech R&D, application and promotion. Reduce the cost of fintech application, promote the application of selected fintech tools from small-scale pilot to large-scale application, and enhance the fintech R&D capacity that meets the needs of rural areas.