# Extended Abstract

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| **Paper/Poster Title** | A study of spatial spillovers and threshold effects of digital financial inclusion on agricultural economic resilience |

**Abstract prepared for presentation at the 98th Annual Conference of The Agricultural Economics Society will be held at The University of Edinburgh, UK, 18th - 20th March 2024.**


| **Abstract** | ***200 words max*** |
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| Agricultural economic resilience refers to the ability of the agricultural economic system to withstand external risks and achieve adaptive recovery and transformation, which is important for sustainable agricultural development. And differences in financial levels determine differences in agricultural economic resilience, as financial levels determine how quickly an industry recovers after a shock. The digital financial inclusion program is an important way for the Chinese government to provide financial assistance to agriculture, and it has helped stabilize agricultural production and resist external shocks. Therefore, elucidating the impacts generated by digital financial inclusion is conducive to promoting agricultural economic resilience. This study examines the spatial spillover and threshold effects of digital financial inclusion on agricultural economic resilience based on panel data from 76 cities in the Yangtze River Basin, China, from 2011 to 2021. The results show that digital financial inclusion development in both local and neighboring regions can promote the resilience of the local agricultural economy; there is a threshold effect and a significantly positive spatial spillover effect of digital financial inclusion on the promotion. | |



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| **Keywords** | Agricultural economic resilience; digital financial inclusion; agricultural technology innovation; spatial lag modeling |
| **JEL Code** | Panel Data Models C23; Financial Services G20; Macroeconomic Analyses of Economic Development O11; Agriculture Economy Q10 |


| **Introduction** | ***100 – 250 words*** |
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| The resilience of the agricultural economy refers to the ability of the agricultural economic system to withstand external risks and realize adaptive recovery and transformation. Against the backdrop of increased uncertainty about external shocks, enhancing agricultural economic resilience is important for maintaining sustainable agricultural development. Differences in the financial environment are an important reason for differences in economic resilience, and sufficient financial capital is conducive to the rapid adjustment of the industry to cope with shocks. The digital financial inclusion program is an important way for the Chinese government to provide financial assistance to agriculture, and it has helped stabilize agricultural production and resist external shocks. Therefore, elucidating the impacts generated by digital financial inclusion is conducive to promoting agricultural economic resilience. Based on the panel data of 76 municipalities in the Yangtze River Basin from 2011 to 2021, this study examines the spatial spillover effect and the threshold | |

effect of digital financial inclusion on the resilience of the agricultural economy using panel space and panel thresholds, respectively.

| **Methodology** | ***100 – 250 words*** |
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The dependent variable of this study is agricultural economic resilience. We selected the value added of primary industry as the basic data of agricultural economic resilience, and measured its sensitivity index to measure the agricultural economic resilience of each city. Meanwhile, this study adopts a panel data two-way fixed-effects model to analyze the impact of digital financial inclusion on agricultural economic resilience. The spatial lag model is selected after the correlation test to analyze the spatial impact effect of digital financial inclusion on the resilience of the agricultural economy. After the correlation test, a panel single threshold model with digital financial inclusion as the threshold variable is constructed to analyze the threshold characteristics of the impact of digital financial inclusion on the resilience of the agricultural economy.

| **Results** | ***100 – 250 words*** |
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There are four main findings in this study. First, local and neighboring digital inclusive finance improves the resilience of the local agricultural economy. Second, local and neighboring digital inclusive finance improves the resilience of the local agricultural economy through agricultural technology innovation. Third, there is a single-threshold feature of digital financial inclusion improving the resilience of the agricultural economy, i.e., the level of digital financial inclusion development plays an positive impact. Fourth, there is regional heterogeneity in the impact of digital inclusive finance on the resilience of the agricultural economy. In regions with relatively high economic levels, the impact of digital inclusive finance on the resilience of the agricultural economy shows a dynamic trend from negative to positive; the cities in the lower reaches of the Yangtze River show a stronger facilitating effect of digital inclusive finance on the resilience of the agricultural economy.

| **Discussion and Conclusion** | ***100 – 250 words*** |
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Cultivating agricultural economic resilience is an important way to promote sustainable agricultural development. Based on the above findings, this paper puts forward the following recommendations: First, promote the development of digital financial inclusion and guide its penetration into agriculture, so as to fully strengthen its enhancement of the resilience of the local and neighboring agricultural economy. Second, accelerate the innovation of agricultural science and technology to strengthen its role in the transmission of digital inclusive finance to enhance the resilience of the agricultural economy. Finally, pay attention to the threshold characteristics and regional heterogeneity of the impact of digital financial inclusion on agricultural economic resilience. Implementing locally adapted and regionally governed digital financial inclusion to better utilize digital financial inclusion to improve agricultural economic resilience.