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Research on the Impact of Digital Inclusive Finance Development on the Upgrading of Residents' Consumption Structure

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Abstract

With the advancement of digital industrialization, the development of digital inclusive finance is becoming one of the important elements to promote modern consumption. Based on my country's resident consumption expenditure from 2011 to 2018 and the digital financial inclusion index data released by the Digital Finance Research Center of Peking University, this paper adopts a two-way fixed effect model and an intermediary effect model to study the impact and role of the development of digital financial inclusion on the upgrading of residents' consumption structure. mechanism. The study found that: the inclusive effect brought by the development of digital inclusive finance is conducive to promoting residents to increase the proportion of development and enjoyment consumption, and realize the upgrading of consumption structure; the impact of the development level of digital inclusive finance in different dimensions on the upgrading of residents' consumption structure There are differences. The coverage and depth of digital inclusive finance can promote the upgrading of consumption structure, but the promoting effect of the depth of use is more significant; the proportion of the intermediary effect of the development of digital inclusive finance in promoting rural residents' consumption upgrade by affecting financial accessibility 41.7%, and for urban residents, the direct effect is more significant than the indirect effect.

Keywords

Digital Financial Inclusion; Consumption Structure Upgrade; Panel Quantile Model; Double Cycle.

1. Introduction

In 2020, under the dual background of the impact of the new crown pneumonia epidemic and the significant deterioration of Sino-US relations, my country proposed the concept of "dual circulation". Taking the domestic circulation as the main body means that meeting domestic needs should be the starting point and end point of development, and more Relying on the domestic market in many places, comprehensively promote the upgrading of consumer demand and consumption structure. With the deep integration of financial development and digital technology, digital technology has lowered the threshold and cost of financial services, reduced information asymmetry, and improved the availability and convenience of financial services, which is conducive to stimulating consumption. However, with the help of financial development, the ability of the capital market to absorb liquidity is getting stronger and stronger, which may lead to the phenomenon of "deflation at the bottom and inflation at the top", which may inhibit consumption. Therefore, it is necessary to study whether financial development is truly to achieve the purpose of "inclusiveness" and then promote the upgrading of residents' consumption, especially the impact of digital inclusive finance on the upgrading of residents' consumption structure, and the issue of how inclusive finance relying on digital information technology can promote consumption upgrading [1].

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2. Literature Review

To study the impact of financial development on the upgrading of residents' consumption structure from the perspective of digital inclusive finance, we must first distinguish the development of digital inclusive finance from the development of traditional finance. The concept of financial inclusion was first proposed by the United Nations in 2003. Combined with the views of Jiao Jinpu et al. (2015), financial inclusion can be defined as a financial system that can provide financial services to all social classes and groups at affordable costs. , especially the disadvantaged and low-income groups in society, including transactions, payments, savings, credit and insurance, etc., its original intention is to emphasize the continuous improvement of financial infrastructure and improve the availability of financial services. The development of traditional finance mostly reflects banking services, and lacks consideration of service convenience and service costs, making it difficult to cover the development of innovative digital finance. Digital financial inclusion literally means digitally-driven financial inclusion. Guo Feng et al. (2020) believe that the difference between the development of digital inclusive finance and the development of traditional finance is mainly in the following two points: From the perspective of the coverage area, the financial development driven by digital information technology overcomes the difficulty in penetration of traditional financial services due to high costs. The difficulties in relatively backward areas make some areas without hardware facilities such as bank outlets and ATMs, customers can still obtain the financial services they need through terminal devices such as computers and mobile phones, thus improving the directness and coverage of financial services. from the social groups covered.Look, the product innovation of digital finance overcomes the exclusion of traditional financial institutions.Other characteristics, lowering the threshold for customer access, allowing small and medium-sized private enterprises and low. Income groups can also enjoy corresponding financial services, highlighting financial [2].

The trend of serving civilians. The upgrading of consumption structure generally has two manifestations: one is the structural upgrading of consumption type, that is, the consumption structure of residents changes from survival to development and enjoyment, and the proportion of various consumer goods in total consumption changes; the other is consumption The structural upgrade of quality is mainly reflected in the fact that consumers are chasing higher-quality goods and services, and branded consumption is gradually expanding. In the literature on consumption upgrading, most of them adopt the former, such as Chen Chong et al. (2019). The existing literature on financial inclusion and consumption mainly starts from the following perspectives: first, from the perspective of income, such as Zhao Sufang et al. (2020), Chen Xiaoxia (2020), Wang Mingyang (2021), etc.; second, from the perspective of regional From the perspective of disparity, such as Zou Xinyue et al. (2020), Guo Hua et al. (2020); the third is from the perspective of mechanism, such as Zhang Menglin et al. (2021) Based on the micro data of the China Household Finance Survey Database in 2017, constructing inclusive benefits at the household level Financial index, to study the impact and mechanism of inclusive finance on household consumption; Tang Shihui (2020) sorted out the relevant mechanisms from the four aspects of payment, credit, insurance and financial management, and analyzed the impact of digital inclusive finance on household consumption. measure analysis. However, very few literatures have proposed specific action paths and verified them based on the background of modern digital finance development, and the few existing literatures on the impact of digital inclusive finance development on household consumption are mainly from a micro perspective. Zong Yue et al (2020). Therefore, based on the perspective of digital financial inclusion development, this paper will discuss the impact of financial development on household consumption structure from the macro level, and propose the possible mechanism of action. The mechanism of action is to study whether there is a significant impact of the development of digital inclusive finance on the consumption structure of urban and rural residents through urban and rural sub-samples[3].

3. Related Theories and Research Assumptions

Digital inclusive finance promotes the upgrading of residents' consumption structure, liquidity constraints and uncertainty of future income will affect residents' consumption and consumption structure. On the one hand, the digital means and inclusive principles of digital financial inclusion provide convenience for residents' consumption, and at the same time provide basic financial services including transactions, payments, savings, credit and insurance for the disadvantaged and low-income groups in society , enhance their ability to avoid risks and optimize resource allocation, thus not only alleviating liquidity constraints, but also reducing the uncertainty of future income to a certain extent, which is conducive to promoting the increase in consumption and thus promoting changes in consumption structure . On the other hand, the income-increasing effect of digital financial inclusion can significantly promote the income growth of residents. According to Maslow's Hierarchy of Needs theory, when the physiological needs and safety needs of the bottom are met, people tend to be more inclined to reduce the proportion of precautionary savings in the total. The proportion of income, so as to pursue higher demand for knowledge and aesthetic needs, such as education and training, consumption of high-end commodities and luxury goods. Therefore, the development of digital financial inclusion can increase the proportion of development and enjoyment consumption.

At the level of digitization, since the Internet is naturally not subject to geographical restrictions, Internet-based digital financial services have the advantages of low cost and low threshold. In terms of cost, through a third-party financial intermediary platform, both investment and financing parties can match themselves based on their needs, and complete transactions anytime and anywhere, reducing transaction costs and entry barriers. In terms of efficiency, emerging electronic products have replaced traditional manual operations, shortened business processing time, and users can conduct instant transfer, investment, payment and other financial transactions, improving service efficiency. Digital finance represented by Internet finance can promote transaction convenience through third-party payment platforms. On the one hand, residents can use their disposable income to buy or sell wealth management products more easily through these platforms for asset allocation. These wealth management products can be purchased through these platforms. The wealth effect promotes residents to increase the proportion of development and enjoyment consumption, thereby realizing the upgrading of consumption structure; on the other hand, on the psychological level, digital payment methods bring consumers a different feeling from traditional payment methods. The feeling of loss is often greater than the feeling of loss of digital currency. In other words, compared with traditional methods, consumers are less sensitive to the transaction price of digital payment, especially the instant electronic transaction of large-value transfer payment for non-essential consumer goods (luxury goods, automobiles, etc.), which is more conducive to promoting development and enjoyment consumption[4].

to promote the upgrading of residents' consumption structure.

Hypothesis 1: The development of digital inclusive finance can increase the proportion of development and enjoyment consumption, and promote the upgrading of residents' consumption structure.

Hypothesis 2: The development of digital inclusive finance affects the upgrading of household consumption structure by improving financial accessibility.

4. Establishment and Analysis of the Model

4.1. Variable Selection and Data Description

Based on the availability and rationality of the data, this paper selects the data of household consumption expenditure and digital financial inclusion index data of 31 provinces and cities in my country from 2011 to 2018 as samples. Consider using panel data for regression. Generally speaking, there are two main indicators to measure consumption upgrading: one is the Engel coefficient, that is, the ratio of food expenditure to total consumption expenditure, which reflects the living standard of residents. The other is the proportion of health care, transportation and communication, culture, education and entertainment, household equipment and supplies, and other goods and services in the total consumption expenditure. This article will adopt the latter and draw on Jiang Hongli's (2020) practice to measure subsistence consumption by the proportion of food, clothing and housing in total consumption expenditure, and use transportation and communication, health care, culture, education and entertainment, household equipment and supplies, and The proportion of the five consumptions of other goods and services to the total consumption expenditure measures development and enjoyment consumption. The increase in the proportion of development and enjoyment consumption can also be regarded as an upgrade of the consumption structure. The data are all from the 2011-2018 China Statistical Yearbook. The main explanatory variable in this paper is the "Digital Financial Inclusion Index", which adopts the "Peking University Digital Financial Inclusion Index" jointly compiled by the Digital Finance Research Center of Peking University and Ant Financial Group.

The data adopts the data of Ant Financial's trading account (i.e. Alipay trading account), which includes three dimensions: coverage breadth (which is directly reflected in the "gold"financial institutions" and "financial service personnel"), depth of use(Actual use of digital financial services, including types of financial services and usage activity) and degree of digitization (such as the proportion of mobile payment transactions, the proportion of credit payment transactions, etc.) can accurately reflect and reveal my country's digital The current situation and trend of financial development[5].

4.2. Build Panel Quantile Regression Model

This part builds a panel quantile regression model to conduct an empirical analysis of the consumption promotion effect of tax cuts and fee reductions in the context of the new dual-cycle development. The panel quantile regression model is also a weighted minimization residual error that modifies the traditional linear panel model. The regression estimation method of the sum of absolute values,in the form of:

$$Y_{it}(_T | X_{it}, D_{it}) = \alpha_i + \beta_T X_{it} + \theta_T D_{it} + \varepsilon_{T,it} \quad . \tag{1}$$

Among them: Yit is the explained variable,Xit is the explanatory variable,Dit is the control variable,βT and θT are the marginal effect parameters at the Tth quantile,and εT,it is the unobserved random item.

In the traditional mean linear model,all sample points are given the same weight in the estimation procedure,so the relative importance of the sample points has nothing to do with the position of the sample points in the sequence;and in the quantile represented by equation (1) In the numerical model,the relative importance of the sample points is constrained by the weight of the sample points in the sequence. The sample points within a given quantile level are given a higher weight.

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Therefore,the parameters βT,θT and εT,it are actually conditional estimates under the conditions of a given quantile and a sample set {Yit,Xit,Dit}. In the estimation procedure,the panel quantile model described by equation (1) is estimated by minimizing the conditional loss function in equation (2):

$$\min_{\alpha_{T,i}\beta_T} \sum_{T=1}^{T=M}\sum_{i=1}^{i=N}\sum_{t=1}^{t=T}\left|W_T L_T\right| \quad . \tag{2}$$

Among them: WT is the weight of the quantile of T ∈ (1,2,...,M-1,M);LT is the loss function of the panel quantile model parameter estimation,LT is expressed by equation (3):

$$L_T = Y_{it}(_T \mid X, D_{it}) - \left(\alpha_i + \beta_T X_{it} + \theta_T D_{it}\right) + \lambda\left(\sum_{i=1}^{i=N}\left|\alpha_{T,i}\right|\right) . \tag{3}$$

The panel quantile model can not only effectively eliminate the normal distribution assumption based on the minimum residual square sum panel model for the unobserved residual items;it can also analyze the heterogeneity and adjustment of the parameter values at different locations in the sample interval. Direction to better reflect the rich information in the sample data set. Therefore,this study chooses the panel quantile model for empirical analysis to improve the value and accuracy of the research.

4.3. Descriptive Statistical Analysis

The development of digital inclusive finance has a significant negative effect on increasing the proportion of urban and rural residents' subsistence consumption, while it has a significant promoting effect on increasing the proportion of development and enjoyment consumption, indicating that the development of digital inclusive finance can promote urban and rural residents' consumption. Structural upgrade, which verifies Hypothesis 1. However, the development of traditional finance has a significant inhibitory effect on the development of urban and rural residents and the increase in the proportion of enjoyment consumption, and the inhibitory effect on urban residents is relatively greater. On the one hand, it shows that the development of digital Internet finance has effectively solved the pain points that traditional finance has been unable to effectively meet the financial needs of long-tail customers. On the other hand, it also shows that the emergence of digital inclusive finance is in-depth promotion of inclusive finance and poverty eradication provides a feasible new path, thereby promoting the development and enjoyment of consumption of rural residents. At the same time, education level has a significant positive effect on the consumption upgrade of urban residents and rural residents, and has a relatively greater promotion effect on urban residents, which is consistent with Song Quanyun et al. The conclusions of consumption expenditure and propensity to consume are basically the same.

The increase in income level can also significantly promote rural residents to increase the proportion of development and enjoyment consumption, and has a certain crowding out effect on the proportion of subsistence consumption in total consumption. Combined with the poverty reduction effect of digital inclusive finance, it is further explained that Digital financial inclusion can alleviate poverty by increasing the per capita disposable income of rural residents, thereby promoting the upgrading of rural residents' consumption structure. The fluctuation of housing prices not only promotes the survival consumption of rural residents, but also inhibits the increase of the proportion of development and enjoyment consumption, while these effects are not significant for urban residents. The possible reasons are: on the one hand, the housing price control policies in cities are relatively stricter, and the income level of rural residents is generally lower than that of urban residents, which makes rural residents more sensitive to fluctuations in housing prices, thus affecting their interest in subsistence consumption and consumption. The consumption expenditure and consumption tendency between development and enjoyment consumption; on the other hand, for rural residents, financial knowledge and literacy are relatively lacking, and they pay more attention to the issue of subsistence and subsistence, and the resources in rural areas are relatively less abundant than those in cities and towns, which further inhibits The expenditure of rural residents in development and enjoyment consumption[6].

The results of regression (1) show that financial accessibility is negatively correlated with the development of digital inclusive finance at the 10% confidence level. The possible reason is that the financial accessibility indicator system used in this paper is mainly based on traditional financial development. With the development of digital finance, residents' reliance on traditional financial services has decreased. Even though many of the bank's businesses are basically handled online, residents are more inclined to small consumer credits on Internet financial platforms, such as Huabei and Jibei. In regressions (2) and (3), after adding the financial accessibility variable to the model in which the development of digital financial inclusion affects residents' consumption upgrade, from the perspective of urban residents, the coefficient of digital financial inclusion dropped from 0.087 without the intermediary variable to 0.087. From the perspective of rural residents, the digital financial inclusion coefficient has increased from 0.047 without the intermediary variable to 0.060, and they are still significantly positive. Overall, according to the mediation effect test process report, the mediation effect of digital inclusive finance development in promoting rural residents' consumption upgrade by affecting financial accessibility is a partial mediation effect, accounting for 41.7%, which verifies Hypothesis 2. It is said that the indirect effect is not significant, but the direct effect is significant at the 10% confidence level, indicating that there may be other mediators.

5. Research Conclusions and Policy Implications

This paper selects the macroeconomic data of 31 provinces and municipalities in my country from 2011 to 2018, and empirically tests the relationship between the development of digital financial inclusion and the consumption structure of residents based on a two-way fixed effect model, and discusses and verifies its mechanism of action. The following conclusions are drawn: (1) The inclusive effect brought about by the development of digital inclusive finance improves financial accessibility, which is conducive to promoting residents to increase the proportion of development and enjoyment-oriented consumption, and to achieve consumption upgrades. However, the promotion of urban and rural residents' consumption structure upgrade is different from the development of digital inclusive finance. Compared with urban residents, its impact on rural residents' consumption structure upgrade is relatively small. (2) There are differences in the impact of the development level of digital financial inclusion in different dimensions on the upgrading of residents' consumption structure. The breadth of coverage and depth of use of digital financial inclusion can promote the upgrading of consumption structure, but the promotion effect of depth of use is more significant. (3) The intermediary effect of digital inclusive finance development in promoting rural residents' consumption upgrade by affecting financial accessibility accounted for 41.7%, while the indirect effect was not significant for urban residents, and the direct effect was significant.

Based on the above research conclusions, this paper puts forward the following suggestions:

First, digital HP Finance promotes the upgrading of consumption structure in rural and urban areas differently, and differentiated urban and rural digital inclusive finance development policies should be implemented. In urban areas, focus on optimizing the financing environment for small and micro enterprises to help build smart cities. Provide richer financial service scenarios according to the needs of small and medium-sized enterprises, such as "contactless" financial services under the normalization of epidemic prevention and control, accelerate the implementation of a new model of digital inclusive financial services for small and medium-sized enterprises, and provide small and micro enterprise customers. Real-time access to financial services provides convenience. Digital inclusive finance should participate in the promotion of smart medical care, smart government affairs, smart transportation, and smart communities, and promote the in-depth development of smart cities in all scenarios. In rural areas, digital inclusive finance should focus on serving "agriculture, rural areas and farmers", promoting the rural revitalization strategy, and winning the battle against targeted poverty alleviation. First of all, we should promote the development of digital rural areas, speed up the construction of the "Sannong" data platform, and promote the effective collection and appropriate sharing of "Sannong" data such as land rights confirmation and circulation information, and provide them to compliant financial institutions for standardized use.Secondly, it is necessary to explore characteristic financial poverty alleviation products and services that meet the financing needs of poor areas and poor people, and promote the penetration of financial services into rural areas.

Second, under the new development pattern of "dual circulation", rural areas are the largest domestic. One of the main bodies of the cycle has huge domestic demand potential. It is of great significance to promote the upgrading of rural residents' consumption structure with digital inclusive finance. The infrastructure construction of rural digital inclusive finance should be further optimized to provide basic support for rural residents to obtain digital financial services, improve the accessibility of digital inclusive finance in rural areas, and thus promote the upgrading of rural residents' consumption structure. Specifically, it is necessary to further expand the coverage of rural network infrastructure, optimize payment infrastructure, improve the coverage and availability of online payment, and gradually form and improve the "government + market" two-wheel drive credit investigation system; The coverage of inclusive financial service stations in rural areas will be gradually improved, and the comprehensive and digital service level of rural inclusive financial service stations will be gradually improved.

Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

References

[1] Clancy D, Cussen M, Lydon R. Housing Market Activity and Consumption: Macro and Micro Evidence [J]. Reamonn Lydon,2014,20(1).

[2] Bhatia K, Mitchell C. Household-specific housing capital gains and consumption: Evidence from Canadian microdata [J]. Regional Science & Urban Economics,2016,56(5).

[3] Aladangady, Aditya. Housing Wealth and Consump tion: Evidence from Geographically Linked Microdata[J]. American Economic Review,2017(11).

[4] S.C He, L. H Liu. Regional Differences in the Wealth Effect of Chinese Residents' Assets Differential analysis [J]. Statistics and decision-making, 2015 (8).

[5] C. Zheng, H. G. Gao. The impact of house price fluctuations on household consumption from the perspective of urbanization.

[6] Andre C, Gupta R, Kanda P T. Do House Prices Impact Consumption and Interest Rate?: Evidence from OECD Countries Using an Agnostic Identification Procedure[J]. Applied Economics Quarterly, 2012, 58(1).

[7] Ritashree, Chakrabarti, Junfu, et al. Unaffordable housing and local employment growth: Evidence from California municipalities[J]. Urban Studies, 2015,52(6).

ISSN: 2688-9323

[8] Stockhammar P, sterholm P. Macroeconomic Effects of a Decline in Housing prices in Sweden[J]. Journal of Policy Modeling, 2015, 38(2).