Research on Digital Financial Inclusion and Household Consumption

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Abstract
Making domestic circulation progressing smoothly, and expanding domestic demand should be carried out from the improvement of residents' consumption level and consumption upgrade. In the context of the new era and the new development pattern, there is still huge potential in China's consumer market. With the continuous innovation of information technology, the development of digital financial inclusion is of great significance to the improvement of consumption levels. In the face of liquidity constraints and other factors, residential consumption growth is limited, while digital financial inclusion can reduce transaction costs, expand service scope, and improve residents' risk smoothing ability to promote consumption levels and structural upgrades.

Keywords
Digital Financial Inclusion; Household Consumption; Expanding Domestic Demand.

1. Introduction
With the continuous advancement of information technology, the digital economy, a new economic form, has developed rapidly, promoting the trend of digitization and intelligence in economic development. In consequence, digital financial inclusion was born. On the basis of digital innovation technology, digital financial inclusion can provide comprehensive financial products and services accurately and effectively with equality, which means all people have access to the financial service no matter who they are. It is for all levels of the society, especially some specific groups, such as urban low-income groups, rural population and small and micro enterprises, it is difficult for which to get the financial services in the traditional financial system. Compared with traditional inclusive finance, digital inclusive finance has obvious advantages in reducing transaction costs, improving economic efficiency, and increasing the popularity of financial product and service.
For more than 40 years, the economy has grown rapidly in China. In this progress, the investment, consumption and net exports are considered to be the troikas driving economic growth. Among them, household consumption plays an important role in stabilizing employment, promoting industrial upgrading, and promoting economic structural transformation. However, in the past ten years, the household consumption rate is less than 40%, which is under the world average level. What's more, in the face of the complex international situation and the impact of Covid-19, in recent years, international trade has fallen and pressure coming from employment has increased. Under this new economic development situation, the central government proposed to “provide strong support for the new development pattern in which domestic and foreign markets boost each other, with the domestic market as the mainstay”.[1] And the development of digital financial inclusion can promote the elements of each link circulation, open up all links of the domestic cycle, and tap the potential of the domestic consumer market.
2. Literature Review

In recent years, digital financial inclusion has been a hot research topic. In most studies, the development level of digital financial inclusion is measured by the Digital Financial Inclusion Development Index which is compiled by the Institute of Digital Finance Peking University. This index includes 33 indicators in three dimensions, such as the coverage breadth, the usage depth and the digitization level of digital financial inclusion.[2] Much study about the digital financial inclusion focuses on the household income, financial needs, family entrepreneurship, and enterprise production. Since China declared victory in the critical battle against poverty as envisaged, research on digital financial inclusion in alleviating relative poverty and narrowing income gaps has continued to develop. In Liu Wei's study (2021) [3], this study divides relative poverty into relative poverty caused by subjective factors and relative poverty caused by objective factors. The study shows digital financial inclusion can use social and human capital as an intermediary to alleviate both subjective and objective factors. Relative poverty caused by this factor. Zhou Li (2020) [4] finds that digital financial inclusion can reduce the threshold effect of financial services and increase financial availability through the analysis of the impact mechanism, which further demonstrates that digital financial inclusion is a digital dividend. Nie Xiuhua (2021) [5] agrees that digital finance can promote the optimization of industrial structure, address the financing difficulties faced by enterprises, and then improve the level of regional innovation. From the micro-view, Wang Daoping (2021) [6] agrees that digital financial inclusion can effectively improve the problem of mismatch in the financial field in the traditional financial system and promote the improvement of total factor productivity of enterprises. Li Tianyu (2021) [7] studies the internal logic of the digital economy promoting China's "dual circulation" in the post-epidemic era, and proposes a practical path on the basis of the current situation of digital economy development through the role of supply and demand as well as supply and demand docking channels.

Since entering the new era, finance has become a more and more important part of the consumption environment. Yi Xingjian (2018) [8] agrees that through the study of household micro-data the digital financial inclusion can improve consumption level and structure especially among underdeveloped areas and low-income groups. Yang Weiming (2021), Li Jiangyi (2016) agree that education level can promote the improvement of consumption level and structural upgrading, and at the same time, improving human capital is also conducive to the development of digital financial inclusion. In terms of research models, spatial econometric models have also been used in special research on digital financial inclusion. On the basis of the spatial econometric model, Zou Xinyue (2020) finds that the impact of digital inclusive finance differs between regions, and the effect of digital financial inclusion on consumption in the western region is higher than that in the eastern region. In the context of the new normal of the economy, studying the relationship between the development of digital financial inclusion and the upgrading of household consumption from various perspectives is of great significance for expanding domestic demand and promoting internal economic circulation. While developing digital financial inclusion, it is necessary to improve education level, improve financial literacy, and improve the quality of the promotion effect of digital financial inclusion.

3. Current Situation and Influencing Factors of Household Consumption Upgrade

3.1. Current Situation

First of all, as the largest developing country in the world, there is healthy and sustainable development of the economy in China, but the consumption rate of Chinese residents is relatively low (Figure 1), which is 37.75% in 2020, far lower than the average for 2020 based
on 150 countries (63.69%). In addition, the consumption upgrade is affected by the overall level of consumption. At present, the growth of household consumption in China still has great potential, and exploring how to increase the rate of household consumption is of great significance to promote the upgrading of household consumption, expand domestic demand, and further expand the domestic consumption market.

Figure 1. The variation of household consumption rate in China (2000-2020)

Secondly, China has a vast territory and an enormous population, so there are great differences in the economic base, population structure, urbanization level, cultural customs and other aspects among various regions. Therefore, there are regional heterogeneity in the level of consumption, different growth rates, and obvious multi-level consumption demand. The overall consumption level in the eastern region is the highest, while in the western region is the lowest. (Figure2) What’s more, the growth rate of the household consumption in the western region of China is the lowest. Zhang Xun (2019) [9] finds that the development of digital inclusive finance can promote family entrepreneurship in underdeveloped areas such as rural areas and increase residents’ income. Income growth is conducive to promoting consumption, thereby narrowing consumption gap between regions.

Figure 2. Total consumption level of China’s 31 provinces (autonomous regions and municipalities) (2011-2020)
At the same time, with the increase of per capita disposable income and the optimization of economic structure, the consumption structure has been continuously upgraded in China. Referring to the research of Yang Weiming (2021) [3], the consumption of food, clothing and medical are considered as the basic commodity consumption, while the consumption of residence, household equipment and supplies, transportation and communication, culture, education and entertainment are considered as high-end commodity consumption. The proportion of high-end commodity consumption in total consumption is considered as the consumption structure upgrade (Figure 3). This figure shows that since the beginning of the 21st century, the consumption structure has been on the upgrade as the per capita disposable income increase, except the decreasing in 2020 because of the impact of Covid-19. With the continuous expansion of the middle-income group in China, the consumption of material can no longer meet the needs of people, and the proportion of development-oriented consumption and enjoyment-oriented consumption will continue to rise. People enrich their life experience and obtain spiritual satisfaction through consumption. So the consumption is able to thrive after a brief dip in 2020.

![Figure 3. Per capita disposable income and consumption structure improvement (2000-2021)](image)

### 3.2. Influencing Factors

The per capita disposable income is the primary factor influencing on the level and the structure of household consumption. From Keynes’s absolute income hypothesis to Friedman’s permanent income hypothesis, scholars have explored the impact of income on household consumption from various perspectives. The impact of income on household consumption in China is mainly manifested in three aspects. First, an increase in real income can boost consumption. From the perspective of micro-individuals, without being affected by other factors, an increase in real income will increase consumption motivation, thereby increasing individual consumption. Second, the income gap has an impact on the overall consumption level and consumption upgrade. Generally speaking, low-income people have a higher propensity to consume than high-income people. The marginal propensity to consume of low-end goods is greater than that of high-end goods. Based on the specific situation in China, scholars have used macro data and micro data to conduct research. Yang Xu (2014)[10] conducts empirical analysis with macroeconomic data, and finds that the widening income gap would reduce the household consumption and increase residents’ willingness to save. While from the microscopic
perspective, Li Jiangyi (2016) agrees that the widening income gap between urban and rural areas will increase the enjoying type consumption in urban areas as well as capital investment in rural areas on the basis of the survey data of Chinese household finance. Therefore, the consumption of basic goods and the enjoying type consumption will be extruded, which will lead to the widening of the urban-rural consumption gap. It is not conducive to the overall improvement of consumption level and consumption upgrade.

Third, income uncertainty will have a negative impact on consumption upgrade and increase the willingness to save. When income is uncertain, people often have a stronger willingness to save in the premise of meeting basic consumption, which is not conducive to the upgrading of consumption structure.

What’s more, consumption levels are constrained by liquidity. Traditional financial service objects tend to be more inclined to the top 20% of the population, who have 80 percent of the social capital and it is difficult for low-income people to obtain accurate and effective financial services. From the perspective of society as a whole, a large proportion of people who really need the money are constrained by funds in the process of consumption, which in turn restricts consumption to some extent.

4. The Mechanism of Digital Financial Inclusion to Smooth the Domestic Circulation of Consumption

4.1. To Expand the Scope of Financial Services and Improve Service Efficiency

On the basis of traditional financial inclusion, digital financial inclusion promote the intelligence of traditional financial inclusion by the means of digital technology. The application of transaction data of the digital platform, digital financial inclusion can identify the credit level of users more accurately and provide accurate and effective financial services. By breaking the rigid traditional financial system, low-income people have access to better financial services they really need. Through the combination of the digital financial inclusion services and platform, multi-level services are provided to meet the needs of people at different income levels, and improve service efficiency, which makes people have access to the financial service accurately. When the long-tail customers, who are below a certain money threshold but have a huge number, receives better financial services to meet the needs of funds, the improvement of overall income levels will be promoted, and the income gap between different regions and between urban & rural areas will be narrowed, which is beneficial to form a good service ecology.

4.2. To Reduce Transaction Costs and Realize Convenient Payment

With the popularization of mobile payment such as WeChat and Alipay and many kinds of other ways, the means of payment have been greatly improved promoting the flow of elements between individuals and enterprises, and forming a digital financial ecosystem. At the same time, the digital financial inclusion services can break the limitations of traditional financial network distribution and are less affected by geographical factors. Even with the adverse impact of Covid-19, the means of transaction methods can achieve high factor circulation efficiency and promote the smooth flow of domestic circulation. In a well-established digital financial ecosystem, the sellers and the buyers can complete the transaction with lower costs, which can promote the connection of various links of factor circulation, improve the efficiency of factor circulation, and most importantly, create service value together.
4.3. **To Strengthen People’s Ability to Respond to Risks and Reduce Liquidity Constraints**

In order to strengthen their ability to respond to risks, people tend to save for a rainy day. With the development of digital inclusive finance, people’s access to funds has become more diverse and they can get the funds more conveniently. On the one hand, to improve the overall risk sharing ability of the society, digital inclusive finance can effectively promote the flow of funds by taking advantage of the platform, and realize the share of risks among residents instead of concentrating on one individual. On the other hand, the development of digital financial inclusion provides residents with financial products with higher returns on the basis of maintaining high liquidity, reduces liquidity constraints, and strengthens residents’ ability to respond to lack of funds.

4.4. **To Establish the Financial Ecology and Promote Circulation between Supply and Demand**

There are different levels of economic development between regions and between urban and rural areas in our country. With distinguished economic base, there is also a large gap in the level of financial development. In the traditional financial system, the allocation efficiency of financial resources is low. By the means of digital technology such as intelligence technology, big data, and cloud computing, digital financial inclusion can effectively collect and evaluate the information of financial individuals, reduce information asymmetry in financial activities, accurately assess transaction risks, and provide accurate financial services for different individuals. On the one hand, individuals realize convenient payment, and demand increases, which can promote product updates. On the other hand, it can develop financing channels, ease the financing constraints of enterprises, meet the financing needs of medium and micro enterprises, control the financing risks of medium and micro enterprises, and improve the capital flow of enterprises, which is beneficial to promote the sustainable development of enterprises, and promote enterprise innovation. Digital financial inclusion creates a sound financial ecosystem and promotes the circulation of factors from production to consumption and so that.

5. **Policy Measures**

First of all, improve the construction of new infrastructure and innovate the way of supervision. By promoting the development of 5G, cloud computing and other technologies, we will continuously improve the infrastructure construction required for the development of digital financial inclusion, and lay a solid foundation for the sustainable development of digital financial inclusion. In the term of supervision, the development of digital financial inclusion has put forward higher requirements for information security, network security, etc. Therefore, in the process of supervision, it is necessary to innovate the supervision concept in order to promote the whole chain supervision, build a digital governance system, and innovate supervision intelligence technology means, which can empower digital innovation supervision. By all these means, provide a good market environment for upgrading consumption structure and build a new development pattern of “dual circulation”.

Second, improve publicity and communication to promote the efficient use of digital financial services. To a certain extent, the promotion effect of digital financial inclusion on consumption is affected by the level of local education. By strengthening the education of digital financial knowledge in underdeveloped areas, especially in areas with low education levels, and popularizing digital financial services, it will help to improve the overall financial literacy of residents and increase their acceptance of digital financial services, so as to better meet the financial service needs of residents.
Third, promote the active integration of various market-main body into the new development pattern of "dual circulation" and fully recognize the development opportunities in the context of digital financial inclusion. As to different regions, implement relevant policies and measures to promote the development of digital finance according to local conditions. On one hand, maintain the development momentum of regions in the forefront of the development of digital inclusive finance. On the other hand, fully tap the innovation potential of digital finance in relatively backward regions. Encourage more financial institutions to carry out digital innovation, provide digital financial products suitable for the region, improve the overall level of the economy, increase the disposable income of residents, expand domestic demand, and optimize the regional consumption structure.

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References