Research on the Impact of Fintech on Real Economic Growth

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Abstract

This paper analyzes the mechanism of fintech's effect on real economy growth from two aspect,including long-tail consumption demand and financing constraints, focusing on the analysis of consumer finance business and diversified investment brought by fintech. Using fintech company-Jingdong financial case to analyze the development of fintech to the real economy from the aspects of consumption and investment. Finally, from the three aspects of research and development of core technology, the establishment of modern fintech regulatory system framework and the cultivation of fintech talents, the countermeasures of fintech to promote the development of real economy are put forward.

Keywords

Fintech, real economic growth, fintech case study.

1. Introduction

Throughout the history of world economic development, the main driving force for economic growth stems from financial driving and technological innovation and the coupling between the two. The relationship between the two continues to merge into a new field of research, namely fintech. Fintech, represented by cloud computing, blockchain, artificial intelligence, internet of things, mobile internet, and big data, has dramatically changed the financial format and reshaped the existing financial system. Yi Gang, president of the People's Bank of China , pointed out in his speech at the " 2019 Lujiazui Forum" that the future of global financial growth lies in fintech, and the competition point of international financial centers is also in fintech, and fintech is promising. Zhu Xiaohuang, former chairman of the CITIC Group, said in the " 2019 China Financial Innovation Forum" that the scale of investment and financing in the fintech market has grown steadily over the past few years. With the rise of open banks, the improvement of regulatory clarity and artificial intelligence and The maturity of blockchain technology will become a "big year" for fintech in 2019 . In the context of China's entry into the new normal, we should promote economic growth and efficiency with the development of fintech and lead the release of new momentum for economic growth.

2. Literature Review

2.1 The Connotation of Fintech

In the academic world, the definition of fintech has not yet been unified. At present, the three mainstream views are as follows: The first view is that fintech is applied to the science and technology of the financial industry, with a focus on the term technology. Ma (2017) pointed out that fintech is a series of technologies that affect financial investment, financing, loans, financial services and currency operations. The second view is that fintech is a financial service innovation brought about by technological progress, including The front-end products and models also include back-end technologies. It can create new business models, new applications, new processes and new products that impact financial markets and financial institutions. The third view is that fintech is a new business model. Including digital currency, crowdfunding and smart investment.

2.2 The Evolution of Fintech

Schumpeter (1912) introduced technological innovation into the research of financial industry, and gradually formed theories of financial development, financial innovation, and endogenous financial development. Levine (1997) analyzes the financial innovation effects from the perspective of financial services functions. They believe that the optimization of financial scale, structure and efficiency contributes to capital accumulation. Pi Tianlei et al. (2018) pointed out in the article of Fintech: Connotation, Logic and Risk Supervision: From the perspective of financial function, the third-party payment and lending platform covered by fintech provides new trading means and breaks the tradition. The boundaries of investment and financing mechanisms can improve risk management and control, making finance more powerful and more efficient.

Frame and White (2009) stimulated financial innovation by studying the transformation of communication and data-related technologies to point out the role of financial innovation caused by technological advancement. Therefore, from the perspective of technological progress, we believe that the latest integration of fintech as a technological innovation and financial innovation is itself a new source of economic growth momentum.

Benston (1976) argues that financial intermediaries have emerged due to frictions such as information asymmetry and transaction costs. Therefore, from the perspective of financial intermediation theory, first of all, blockchain and artificial intelligence can reduce the information asymmetry in the market through its strong technical support. Secondly, the long-term higher transaction costs of the financial services industry have formed barriers. The application of blockchain technology in cross-border payment greatly reduces transaction costs and improves transaction efficiency. The emergence of artificial intelligence can also significantly reduce labor costs. Third, the stability of the financial system is particularly important in an increasingly complex financial environment, where large amounts of data are generated in real time and transactions become complex and concealed. Fintech can analyze and identify the risk information behind the data, reduce the possibility of risk occurrence, and quickly and accurately identify and monitor risks. Finally, inclusive finance has always been an international concern, and the emergence of fintech has further boosted its possibilities. The way investors enter the financial market has become quick and transparent, and many potential financial user needs have emerged gradually.

The term "technical economic paradigm" is pointed out by Perez by summarizing the development and changes of the five technological revolutions. The technical revolution is divided into the outbreak phase, the fanatic phase, the synergy phase and the maturity phase. The economic paradigm is divided into the introduction period and the expansion period. The full development of the new technology and economic paradigm depends on institutional adjustments. Only in this way can new technologies fully penetrate and spread the entire economic structure. According to data from the global fintech field , the average annual transaction rate of global fintech mergers and acquisitions before 2012 was six and the average annual transaction volume was about 258 million US dollars. Explosive growth began in 2013 , rising to 29.37 billion. In 2017 , the total transaction volume reached 256 , and the total transaction volume exceeded 10 billion US dollars. In 2018 , the number of investment and financing was 2,196 , and the total transaction volume broke through 100 billion US dollars, reaching 111.8 billion US dollars. The massive investment in financial capital will promote the sustained and rapid development of the fintech industry andinnovate traditional industries continuously .

3. The Mechanism of Fintech on the Growth of Real Economy

3.1 Long Tail Consumer Demand

Consumption is an important engine for economic growth. Fintech plays a big role in consumer demand and behavior. How to use fintech to better serve consumption and promote the development of the real economy has important practical significance. According to the Asian Development Bank, about 2.5 billion people worldwide are outside the formal financial system. Although the scale of financial consumer demand is growing, those financial needs that are less profitable are often not met. From the demand side, fintech can analyze customer's consumption behavior according to customers' browsing and consumption habits through its big data analysis, and grasp the customer's behavior preferences, precision marketing and promote user consumption. At the same time, based on this information, intelligent financial services are provided at relatively low transaction costs. For example, using fintech to establish models to analyze consumer behavior and credit, and to guide the rational consumption behavior of social funds, the residents' marginal propensity to consume can be improved. The long tail consumer demand is matched. From the supply side point of view, fintech can make a big difference in the financial fields of payment, lending, wealth management and insurance. Ant Financial is one of the good cases. It has gradually covered the business scope with the accumulation of e-commerce business for many years. Payment, wealth management, loans, risk management and other aspects, connecting the supply side and the demand side, introducing new products to customers, driving demand to move to the right along the curve, serving a large number of long-tail consumer users.

3.2 Financing Constraint Hypothesis

Investment is one of the three troikas that drive economic growth, with efficient investment as the main representative. Therefore, how to use fitech to better stimulate efficient investment and promote the development of the real economy has important practical significance. After obtaining sufficient funds in the financing process, enterprises choose efficient projects to invest, thus stimulating economic growth. The MM theorem shows that in a series of strictly hypothetical capital markets such as perfect information and no transaction costs, there is no difference between endogenous funds and external funds, which can be completely replaced, and enterprises will not be restricted by financing constraints. In reality, the capital market is not perfect, and information asymmetry will cause capital rationing. Internal investors have more information about the company's value than external investors. At this time, investors' reverse choices require higher risk returns, which leads to the need for companies to bear additional cost premiums in external financing, resulting in enterprises facing financing constraints. In order to alleviate the external financing constraints faced by enterprises, companies will increase their reliance on internal cash flow to invest. When a company has good investment opportunities and insufficient internal financing, financing constraints will force the company to abandon certain projects with positive net present value and deviate from the optimal investment level. Another important premise of the financing constraint hypothesis under the condition of information asymmetry is that the interests of managers are highly consistent with the interests of existing shareholders of the company. However, the ownership and management rights of modern enterprises are generally separated, which leads to a principal-agent relationship between shareholders and managers. In the absence of an appropriate incentive and restraint mechanism, managers will make investment decisions that deviate from the goal of maximizing corporate interests in order to maximize their own interests. For example,keen to build own company empire for diversified investment, that is, "imperialism construction." Or there is a "short-sighted tendency" and a "flock effect." Therefore, we analyze the different levels of financing constraints that have an impact on the company's inefficient investment behavior.

The development of financial technology can broaden financing channels and enrich financing tools. The credit model of fintech mainly includes traditional P2P lending model, notary loan model, guaranteed return model, balance sheet model and bill trading model. Fintech credit brings together investors and capital demanders on a unified platform. A large number of minority needs are concentrated into economies of scale, and financial repression is effectively alleviated. At the same time, fintech can accurately locate the demand and supply of funds, achieve an effective matching of capital loans, and reduce invalid transaction costs. The development of fintech can diversify risks. From the perspective of lending rates, the interest rates of fintech lending are more dispersed, and lenders bear less risk and are more easily accepted by enterprises. From the perspective of project risk assessment, FinTech uses its big data, artificial intelligence, and blockchain technology to help companies assess the strengths and weaknesses of investment projects, identify potential risks in investment projects, and improve their risk-taking capabilities.

4. Fintech Case Study

JD finance operate independently in October 2013, the service targeted at financial institutions, technology companies. JD Group relies on more than 240 million active users of JD Group , has hundreds of thousands of suppliers and partner data and transaction data , and has established nine business segments so far - supply chain finance, consumer finance, crowdfunding, wealth management, payment, insurance, securities, rural finance, and fintech are deployed in corporate finance and consumer finance to develop fintech In terms of self-positioning, JD Finance tends to build a financial service platform through big data to improve efficiency and reduce investment and financing costs. In 2018 , JD Finance officially changed its name to JD Digital Technology. After five years of exploration in the financial field, JD Science and Technology has felt that if it is not enough to provide digital services for financial institutions, it must also go to the industry to digitize itself. Only by doing a good job of digitizing the industry will it be possible to truly realize the deep connection between finance and the real industry.

In terms of financial stimulus consumption, JD white strip is a new payment method of “first consumption, post-payment” launched by JD. It can use the white strip for payment on the JD website, and can enjoy a delay of up to 30 days or a maximum of 24 periods. Installment payment method. Since then, White strip has begun to walk out of JD. It has integrated more scenes with open cooperation and provided credit consumer loans, including tourism, renting, car purchase, education and other services, and has consumer financial support for campus and rural people. Consumer finance business uses the wind-control big data model to identify users. The background risk control system combines various factors and data to“recognize”users according to shopping habits, credit status, delivery address stability, etc., and then quickly the result of the evaluation of whether the "white strip" can be activated. The launch of JD Payment and JD strip imade consumption more convenient, increased the number of people's consumption, and drove a substantial increase in consumption.

In terms of financial stimulus investment,“Jingbaobei”is a supply chain finance business launched by JD Finance. Traditional supply chain finance has many problems such as fixed financing quota, long review period, and open accounts and complicated materials. “Jingbaobei” completes the automation approval and risk control by integrating and processing the procurement, sales and finance data on the JD platform. Since the entire process is carried out online, the time to implement the loan can be shortened to less than 3 minutes from the previous day . At the same time, JD Finance relies on cloud computing, big data and other advanced technologies and credit information systems to support the development of wealth management, insurance, crowdfunding and other businesses, providing investors with diversified investment channels to provide financial services for more ordinary people. service.

JD Finance uses fintech innovation to promote enterprise development. On the one hand, it promotes the diversification of consumer finance business and its scenarios, expands domestic demand, and stimulates consumption. On the other hand, the use of blockchain and other technologies to improve the transparency of the entire supply chain, so that many small and medium-sized enterprises can get more technology dividends, and promote the innovation activities of small and medium-sized enterprises.

5. Recommendations on China's Fintech Development

The fintech services in China's real economy are gradually being realized. Under the new normal, the stability of the financial system and the improvement of the economic efficiency of financial services, China should effectively use fintech. This paper considers three channels such as the technical conditions, the regulatory framework and the personnel training to balance the risks and benefits of fintech.

First, we must pay attention to the research and development of core technologies and actively consolidate the information technology foundation. Technology itself is both a driving force for the development of fintech and a risk point for fintech. Data information is easily stolen and exploited by malicious people and faces technical risks. Technology may also face the risk of getting out of control. There is still improvement in fintech itself. Therefore, it is necessary to create a good environment for fintech innovation, pay attention to technical shortcomings and research and development of new technologies, and provide strong technical support for the re-innovation and application of fintech.

Second, create a framework for modern fintech regulatory systems. In 2013 , the "first year of Internet finance" had serious problems due to the lack of theoretical consensus, supervision of the bottom line and basic elements. At its root, it is prone to a large number of “tofu slag projects” without the support of a complete research framework, innovation and safety standards and regulatory policies. It is currently the window of fintech development. It is necessary to avoid the repeated mistakes of Internet finance and to seize the important historical development opportunities. Therefore, as a continuation of Internet finance, fintech needs to play a role in promoting the development of the real economy, and a sound system is needed to regulate its development. In the early stage of its development, it is possible to conduct trial operations under the framework of appropriate laws and regulations, and accelerate the establishment of an institutional framework for industry access standards, information disclosure, and risk management through trials and risk assessments. At the same time, to strengthen cross-regional regulatory cooperation, China should actively participate in the formulation of these new international regulatory rules, which will help financial technology companies “go global” and realize their potential for global expansion.

Third, the cultivation of financial science and technology talents. The shortage of professional talents is a prominent problem that affects the promotion of fintech to promote the growth of the real economy. It lacks comprehensive talents to develop technology and financial knowledge, thus achieving an effective connection between fintech and practical applications. In addition, regulators need to upgrade their technical reserves. The diversity of financial products and the complexity of technology. It is necessary for regulators not only to be familiar with regulatory policies and guidelines, but also to understand the technical logic of fintech and to grasp the knowledge of financial markets.

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