

# The Impact of Internet Finance on Commercial Banks

Fangyuan Lou

School of Social Sciences, Harbin Institute of Technology, Harbin 150001, China.

## Abstract

Driven by the development of information technology, Internet financial services have also developed rapidly, gradually improved and matured, which has exerted influence and impact on traditional physical commercial banks. Commercial banks are also undergoing continuous transformation and facing the competitive challenges brought by Internet finance. This paper summarizes the existing case analysis and empirical research on real commercial banks and Internet finance. This paper analyzes the advantages and disadvantages of Internet finance compared with real commercial banks, and uses data and examples to explain the impact of Internet finance on real commercial banks.

## Keywords

Internet finance; Commercial banks; Information technology.

## 1. Introduction

The Internet finance model uses emerging Internet technologies to create an "integrated" financial service platform, such as Tencent's wechat payment system and Alibaba's Alipay. E-commerce platforms also face personal loans according to personal credit, such as "Huabai" and other online loan apps, some shopping apps have also launched corresponding Internet financial services such as "Jingdong Baitiao", and gradually by the enthusiasm of young people. To a certain extent, it has affected the pattern of the financial industry, the functions of commercial banks, the development space, and profits.

### 1.1. Convenient handling, low cost, high efficiency

Compared with the traditional credit card to physical commercial bank loans, Internet financial loans, not only less than a card, and cumbersome procedures, no space restrictions, saving a certain cost of loans, credit requirements are also lower, easier to obtain a certain amount, repayment is simple and convenient. It can be easily handled through mobile phones, which meets the rapid consumption needs of young people. Yu 'e Bao adopts a "T+0" fund model, and funds can be transferred out on the same day. At the same time, the traditional bank's physical outlets are also facing the rising operating costs and security costs, and the network bank has a huge cost advantage in this regard." see Table 1.

"The European banking industry has estimated the average cost of a single financial business, the business point is 1.07 US dollars, and the cost through the Internet is only 0.1", Internet finance business management compared to the physical commercial bank financial business management, in reducing costs has a great advantage. For example, the difference between online stores and physical stores is similar, Internet financial business management saves a certain amount of space and the cost of additional goods, but also saves a certain amount of costs caused by space restrictions for financial business customers, thus improving the efficiency of business management.

**Table 1.** Total operating cost of five major state-owned banks (RMB 100 million)

	BOC	ICBC	BCM	CCB	ABC
The year 2015	3381	2525	3646	3155	2992
The year 2016	3032	2496	3016	2814	2899
The year 2017	2439	1953	2610	2636	2254
The year 2018	3091	2306	3234	3127	2732

## 1.2. Promoting new forms of inclusive finance

Internet finance can promote a new inclusive financial mode with an open, equal and cooperative model. For example, the development of P2P helps to alleviate the loan difficulties of smes to a certain extent, and supports the development of smes. There is also a diversified demand for personalized financial services, including personal investment and wealth management. Internet finance also has great room for development in this regard. Through the channels of Internet finance, finance is no longer a professional term that ordinary people cannot understand, and financial products, monetary funds and other businesses are no longer products with high participation threshold. Individual investors can easily participate in the financial system and obtain benefits, which is inclusive finance, which is also a broad market demand that traditional finance can not take into account.

For example, the emergence of Yu 'e Bao has promoted the in-depth cooperation between traditional financial institutions and Internet financial institutions. Through the Internet, not only fund products, but also securities, insurance, wealth management products and other financial products are sold, which improves the efficiency of financial institutions and Internet companies, broadens the investment channels for individual investors, and breaks the business boundaries of traditional commercial banks.

## 1.3. The problem of information asymmetry has been alleviated

In the securities business, traditional securities firms also play an intermediary role. Compared with banks, securities firms have great advantages in scale economy and professional information technology processing, which makes traditional securities business become another major business besides banks. However, this advantage of securities firms began to weaken after the emergence of Internet finance. "Among them, the most prominent is that the Internet has greater advantages than securities financial intermediaries in information collection and processing, and it has a stronger ability than securities firms in solving the problem of information asymmetry between investment and financing parties."

## 2. Disadvantages of Internet finance

### 2.1. Computer network information system security risks

Compared with the closed business model of traditional banks, Internet finance is more vulnerable to hacker attacks and virus attacks, and financial information is more likely to be stolen and tampered with, especially the authenticity of traders' identities, which is sometimes difficult to confirm, and there is a greater risk of information leakage and fraud. Therefore, we should not only affirm the positive role of Internet finance, but also cannot ignore its hidden risks. We should strengthen the supervision of Internet finance, including internal self-discipline and external supervision. The proliferation of Internet finance means that the supervision and control of various online lending platforms still need to be strengthened. However, with the application of blockchain technology and the blessing of big data technology, the reliability and security of Internet finance have gradually improved, and the future development trend is more optimistic.

## 2.2. Bear trust risk

Jialong Wang [1] concluded that in the highly competitive online payment industry, customer satisfaction can attract new customers and keep loyal customers, and security trumps accessibility. The development of Internet finance also brings many and complicated problems, and there is a trust problem in the choice of business management platform. At this point, physical commercial banks give people the feeling that they are more trustworthy, and fixed outlets are more trustworthy for some people. Some people who are older and have more conservative financial concepts are more inclined to go to traditional physical commercial banks for financial services.

## 2.3. More uncertain liquidity risks

All e-money issuers need to meet the appropriate liquidity requirements. If the issuer's actual currency reserves are insufficient, a liquidity crisis will occur. Finance is the virtualization of money, while the Internet is the re-virtualization of physical information, and the superposition of virtuality increases the unpredictability of financial laws. In addition, the simultaneous rise of supply and demand and the convenience of operation also increase the possibility of bank runs, and the liquidation behavior will converge at a certain time node into a terrible bank run. The larger the size of the issue, the larger the balance used for settlement, the greater the possibility that the issuer will not be able to redeem the equivalent amount of the electronic money it has issued, and the greater the possibility of insufficient clearing funds."

## 3. The impact of Internet finance on physical commercial banks

### 3.1. Forcing commercial banks to raise financing costs

Hualei Ju [2] came to the conclusion that Internet finance has a negative impact on the profitability and profit structure of traditional commercial banks. As a typical representative of financial disintermediation, Internet finance has caused certain changes in payment settlement, fund flow, financial products and market pattern, and the most direct impact will be on the traditional financial sector, especially the decline in the deposit absorption capacity of the banking sector and the rise in deposit costs.

To some extent, Internet finance has promoted interest rate liberalization and increased investors' returns. For example, Yu 'e Bao's impact on banks' fixed interest rates has forced commercial banks to adapt to market innovation [3]. After 2013, the Internet finance represented by Alibaba rose to the top. According to the statistics of the People's Bank of China, the deposit balance growth rate of commercial banks began to decline in 2013, and by the end of 2019, the deposit balance growth rate had dropped from 16.0% to 8.7%. From 2010 to 2018, the weight of demand and time deposits of commercial banks showed a downward trend. The funds absorbed by Internet financial products at high interest will eventually be entrusted to banks for asset management or lent to commercial banks, reducing the sources of low-cost funds for banks, forcing banks to collect deposits at high interest, and raising financing costs

P2P lending and third-party payment have a significant negative impact on the profitability of deposits and loans of Chinese commercial banks. The development of Internet finance intensifies competition, reduces the interest income of loans, increases the interest cost of deposits, reduces the growth rate of loans and deposits, and brings more risks. However, in recent years, the P2P financial model has been increasingly regulated by the state, and most of them have switched to other services. But the volume is still significant. see Table 2.

**Table 2.** Transaction volume of P2P companies' online loans

	Online loan turnover (100 million yuan)	Year-over-year change
The year 2019	9649.11	-46.24%
The year 2018	17948.01	-36.01%

### 3.2. Seize customers and reduce the development space of commercial banks

The traditional business model of China's banking industry is to deal with familiar customers and customers with high credibility, but this business model is very slow under the competition of the current online lending platform and third-party platforms, resulting in the loss of many enterprises in urgent need of money. Another example is Yu 'e Bao, whose interest rate is higher than that of a bank demand deposit. The account funds can be used for online shopping or transfer at any time, which attracts a large number of young people who are keen on online shopping. [4]

The main asset business of the entity commercial bank is the credit business. The traditional credit business mainly serves large and medium-sized enterprises and institutions, and the funds allocated to small and micro enterprises are very small. The emergence of Internet finance provides better services for small and micro enterprises, and changes the financing methods of main customers in the loan market. As a result, the development of commercial banks' loan business is greatly hindered, and the development space is greatly compressed.

### 3.3. (3) Changed the sensitivity of bank risk behavior to monetary policy

Qiao et al. [5] conclude that Internet finance changes the sensitivity of banks' risk behavior to monetary policy. Internet finance has a heterogeneous impact, depending on the ownership (i.e. state or private) and size of the bank. Different from the subsample of large banks, among private banks, Internet finance has little impact on the bank's monetary policy risk transmission channel.

### 3.4. Accelerating the transformation of commercial banks

Internet finance has intensified the competition in the deposit market, played a great crisis role in the development of commercial bank deposit business, and promoted the development and innovation of commercial bank deposit business in this respect. "In order to solve this series of problems, commercial banks must realize the transformation from the familiar large industry to small and micro enterprises, from wholesale to retail." Internet finance provides efficient and convenient credit services, making commercial banks gradually realize the inefficiency of the traditional credit approval mode, thus accelerating the transformation and development of credit business.

The user cost of electronic fund transfer channel is lower than that of traditional fund transfer channel. This has also promoted the transformation of commercial banking business management to save costs. Commercial banks can enhance their ability to detect and measure risks such as credit risks through the transformation to Internet finance. Artificial intelligence is a powerful tool to enhance the ability to measure credit risk. Artificial intelligence can be fully utilized to enhance the risk measurement and detection capabilities of physical commercial banks.

### 3.5. Affecting the liquidity of commercial banks

The development of Internet finance has a significant negative impact on the liquidity of commercial banks, that is, the faster the development of Internet finance, the lower the liquidity of commercial banks. "The development of online lending, third-party payment and Internet money fund three Internet financial services have significantly reduced the liquidity of

commercial banks, but the degree of impact is different, that is, the development of Internet money fund business has the greatest impact. The development of third-party payment business has the second impact, and the development of online lending business has the third impact; The development of Internet finance has a significant negative impact on the liquidity of commercial banks mainly through the transmission channel of debt structure."

#### 4. peroration

This paper summarizes the existing case studies on real commercial banks and Internet finance, and concludes the advantages of Internet finance compared with real commercial banks: Convenient business handling, lower cost, higher business handling efficiency, breaking the boundaries of traditional commercial banks, promoting new inclusive financial formats, higher risk management performance, information asymmetry can be alleviated, and disadvantages: Computer network information system security risks, carrying trust risks, new challenges to financial supervision, more uncertain liquidity risks, and finally concluded the impact of Internet finance on physical commercial banks: Forced commercial banks to raise interest rates and raise financing costs, affecting commercial banks' profits, seizing customers, reducing the development space of commercial banks, changing the sensitivity of banks' risk behavior to monetary policy, accelerating the transformation of commercial banks, and affecting the liquidity of commercial banks.

#### References

- [1] Hualei Ju, Guodong Zhang. Analysis on the Profit Model Transformation of Commercial Banks Under the Background of Internet Finance[J]. Academic Journal of Business & Management,2020,2(5).
- [2] Jialong Wang. Customer Satisfaction with Alipay in Hong Kong[J]. Scientific Journal of Economics and Management Research,2020,2(6).
- [3] Jing Li. An Empirical Study on the Effect of Yu'eobao to the Deposits in Chinese Commercial Banks[J]. Open Journal of Social Sciences,2015,3(12),142-148.
- [4] Jian Su, Guangming Deng. Application of Intervention Analysis Model in Yu Ebao Yield Prediction[J]. Modern Economy,2014,5(8),864-868.
- [5] Qiao, Chen, Xia. The Effects of the Sharing Economy: How Does Internet Finance Influence Commercial Bank Risk Preferences?[J]. Emerging Markets Finance and Trade,2018,54(13),3013-3029.