

The Influence of the Development of Electronic Money on Money Supply

Hailong Tian

University of Newcastle NE1 7RU, UK

470637841@qq.com

Abstract

With the development of economic globalization and social informatization, electronic money has been widely used in economic development and become a daily payment method. E-money has the advantages of low cost and high efficiency. The popularity of E-money has replaced cash flow, affected the basic currency and money multiplier, and affected the money supply. While electronic money brings great convenience to people, it also has certain risks, which affects the monetary authority of the central bank and reduces the state's control over money. Therefore, it is necessary to take some measures to control the electronic currency and ensure the currency security of our country. This paper mainly discusses the impact of E-money on money lending, and puts forward suggestions on improving the effectiveness of money supply.

Keywords

electronic money; money supply; influence.

1. Introduction

Electronic currency is a new form of money in human history, digital currency after physical currency, metal currency and paper currency. Based on digital technology, it has got rid of the physical form of money, replaced the paper payment methods such as cheques and cash, changed people's payment habits, changed the demand structure of money, changed the channels, subjects and mechanisms of money lending, thus affecting the structure and total amount of money lending, and affected the regulation and control of currency lending. Electronic money includes carbase electronic money and netlike electronic currency, and the electronic currency of carkie is represented by prepaid cards and bank cards. The net based electronic currency is represented by PayPal and Alipay. Electronic money has an impact on the existing monetary theory, and has an impact on the supply and demand of money.

2. E-money Affects the Base Currency

2.1. E-money Affects Cash in Circulation

E-money improves the speed of money circulation and increases the efficiency of capital use, which makes the amount of basic money needed by society smaller, reduces the size of the central bank's balance sheet, and makes the indicators in monetary policy more difficult to measure and control.

E-money is powerful and easy to use. It can realize transfer, savings, consumption, cashing and other functions. It can be widely used in various forms of economic development, including production and sales of products and public consumption links. As a result, people use less and less cash in real life. People don't have to keep cash, they can realize payment function and exchange function. With the development trend of society, the development of information technology and the development of financial products, the future financial activities can use

electronic money, take the electronic currency in the user's account for settlement, which leads to a large number of cash will be replaced by electronic currency.

2.2. E-money Affects Deposit Reserve

The central bank influences the lending of money by adjusting the deposit reserve. However, E-money has replaced part of the legal deposit reserve, and if the central bank does not withdraw the part replaced by the electronic currency when withdrawing the deposit reserve, it will affect the control effect of the central bank. Moreover, commercial banks can adjust the structure of assets according to their own conditions. In this way, although the central bank has formulated a legal deposit reserve ratio, commercial banks can weaken the central bank through electronic money and electronic currency derivatives [1].

The role of legal reserves.

3. E-money Affects Money Multiplier

In the traditional money supply mode, money supply = base money × money multiplier, which is the sum of various deposits in the banking system

The sum of currency in circulation. The size of money multiplier indicates the money creation ability of banks. The main factors influencing the currency multiplier are cash leakage rate, legal deposit reserve ratio, fixed deposit rate and excess reserve ratio [2].

3.1. E-money Affects Cash Leakage Rate

In the traditional economic form, the reason for the high rate of cash leakage is the large amount of cash used. After the popularity of electronic money, it has replaced a large amount of cash in circulation, making the society less cash and more deposits in commercial banks. This reduces the cash leakage rate and increases the currency multiplier. [3]

In addition, with the continuous development of the economy, the volume of transactions continues to increase, and the proportion of E-money becomes larger. At the same time, the security, convenience and low-cost of E-money improve the safety factor and efficiency of transactions; the growth of wealth and income will increase the proportion of people's savings, and the increase of savings will reduce the amount of cash held by people; e-commerce and mobile payment will increase The utilization rate of electronic currency reduces the utilization rate of cash. All of these reduce the cash leakage rate.

3.2. E-money Affects Time Deposit Rate

The purpose of people holding cash is to meet the needs of daily life consumption. Electronic currency can not only meet the consumption function of traditional money, but also be more practical. The security, diversity and convenience of electronic payment make the traditional currency out of reach, which reduces people's demand for traditional currency and improves people's demand for electronic currency. As a result, the public will put more money into commercial banks, increasing the ratio of time deposits. The ratio of current deposit to fixed deposit is mainly affected by bank interest rate. The popularity of electronic currency reduces the demand for demand deposit. In order to obtain more capital interest rate, the public will increase fixed deposit and reduce demand deposit, thus increasing the ratio of fixed deposit.

3.3. E-money Affects the Excess Reserve Ratio and Deposit Reserve Ratio of Banks

Generally speaking, the central bank formulates the legal deposit reserve ratio, but the popularity of electronic money enables commercial banks to adjust their product structure and adjust deposit reserve, which affects the central bank's control over the legal deposit reserve ratio. [4]

The excess deposit reserve ratio is adjusted by commercial banks according to their own actual situation and business. As E-money meets people's transfer and consumption needs, people's demand for cash withdrawal is reduced, so that the commercial banks' reserves to meet customers' cash demand will be reduced, and the very bank can use more money for delivery business, which is equivalent to increasing the amount of basic money in disguised form, thus increasing the money supply of society.

4. Strategies to Improve the Effectiveness of Money Supply

4.1. Establishment of E-money Deposit Reserve System

So far, all countries have not drawn the electronic currency reserve, but the current development situation is that the electronic currency has replaced the social cash and the bank's current deposit, reducing the bank's legal deposit reserve and weakening the monetary authority's control over the currency [5]. Therefore, it is necessary to establish the E-money deposit reserve system, and realize the effective control of money supply by drawing corresponding reserves.

4.2. The Central Bank Establishes a General Platform for Electronic Payment and Settlement

In order to maintain the authority of the central bank, the central bank can establish a national payment and settlement platform to control the influence scope and size of electronic currency, ensure the authority of monetary policy, and prevent the risk of electronic currency caused by privacy maintenance and special authorization. Through legal means, control the issuance of electronic money, such as the minimum capital, so that the issuance of electronic money meets the standard conditions. From the legal constraints on the issuing agencies of electronic money, control the risk of currency.

4.3. Improve Risk Early Warning Mechanism

With the globalization of information technology, the network risk is increasing. The E-money system of our country is not perfect enough. The electronic money of other countries can easily flow into our country, which increases the difficulty of supervision of the central bank. Therefore, the central bank and relevant departments need to strengthen cooperation, improve the risk early warning mechanism, and prevent the impact of foreign capital on China's monetary policy. In addition, we need to strengthen the prevention of money laundering.

4.4. Improve the Supervision of E-money

Improve the relevant laws and standardize the legal environment of E-money. Learn from the relevant legal experience of developed countries, combined with the actual situation of our country, introduce the relevant E-money law. The transaction of E-money depends on electronic means. It is necessary to ensure the security of capital, the interests of banks and the public, and to create a safe and stable environment for E-money.

The development of electronic payment in our country is not mature. It is necessary to improve the legal use of electronic money and avoid payment risk. Relevant financial institutions should publicize the security issues of E-money, such as user authentication, password setting, and computer encryption, so as to cultivate users' awareness of protecting information security. In addition, the government also needs to carry out relevant publicity to improve the risk awareness of the public for E-money, improve the legal awareness of the public, and reduce the risks brought by E-money.

5. Conclusion

Compared with the traditional currency, electronic currency has the characteristics of simple production process, convenient storage and low inventory cost, which is a change of traditional currency form. The development of electronic money has impacted the traditional monetary theory system and increased the difficulty of the central bank in regulating and controlling the money supply. The main body of currency issuance is no longer just the central bank. Electronic currency has replaced part of the cash in circulation, making the regulation of money supply more complex. Therefore, it is necessary to take certain measures to control the issuance and circulation of electronic money National and public currency security norms.

References

- [1] Fu Sheng. Discussion on the impact of the development of electronic money on money supply [J]. Times Finance (late ten days), 2017, (6): 211224.
- [2] Qin Xiao Qing. Research on the impact of E-money development on China's currency creation ability: Taking Alipay as an example [D]. Jiangsu: Nanjing University of Finances and Economics, 2017.
- [3] Hu Zaiyong. Theoretical analysis of the impact of E-money on money supply and demand: Based on the perspective of narrow E-money [J]. Financial theory and practice, 2015, (4): 35-40.
- [4] Huang Weinan. The influence of E-money on money supply theory [J]. Times economic and trade, 2013, (12): 70-71, 74.
- [5] Sun Ziyin. The influence of E-money on money supply theory [J]. China Business Journal, 2012, (15): 250-251.