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Bank of Japan

# **Cashless Payment Tools** The Future of Retail Payment

Remarks at the Seventh FinTech Forum

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(The English translation is based on the Japanese original)

#### Introduction

It is a great pleasure to welcome you all today to the seventh meeting of the FinTech Forum.

The topic of today's event is cashless payments, more specifically, retail cashless payment. As you may know, cashless payment is one of the hot topics at the moment. In Japan, people have very easy access to ATM's, and banknotes are clean and rarely counterfeited. It is very easy and convenient to use cash. Nevertheless, the development of information technology and the growing use of smartphones has enabled the emergence of a wide range of cashless payment services. It is expected that this phenomenon will help to develop more convenient and secure retail payments.

### I. Diversification of Retail Payment Methods

In Japan, apart from cash, many people use credit cards for retail payments. Credit card transaction volumes have been growing continuously. Electronic money such as plastic cards with an embedded integrated circuit, and mobile contactless payments, have also been available from an early stage. More recently, mobile payment services using a QR code, are appearing one after another. Diversification of payment methods has allowed a number of service providers from different industries to enter the market. The new entrants are actively expanding the consumer and merchant base, and, as a result cashless payments are now one of the most interesting topics in the field of finance and payments.

Today, we invite service providers who offer contactless payment services and/or QR code payment services to discuss their current status, the challenges, and the prospects of these services from various angles.

### II. The Bank of Japan's Perspective

The reason why the Bank of Japan's FinTech Center raises this topic is that the

expansion of convenient and secure payment services, as well as the emergence of novel financial services, could contribute to Japan's economic growth. Innovation in retail payments does not only result in the refinement of payment services, such as improved usability and cost reductions. For example, a wide range of firms could use data associated with payments to facilitate their marketing, or they could create innovative services and added value by combining payment services with completely different services. These advantages are discussed widely and many entities have already been actively working on them.

On the other hand, new payment services could entail specific risks. Retail payments are an essential infrastructure to support our lives and economic activities. The security and the stability of the services is an essential requirement. In particular, as they are closely related to our daily lives, as is cash, accessibility and reliability should always be ensured. It would also be important from a security perspective to have appropriate measures to protect personal information and prevent fraud.

In addition, payment infrastructures could experience significant transformations when innovative payment services emerge and are used widely. Central banks are expected to pay attention to a wide range of issues such as the safety and efficiency of our payment and settlement system as a whole, appropriately monitor the latest trends and possibilities, and design the outline of future payment infrastructures.

#### III. Challenges to the Expansion of Cashless Payment Services

The settlement business can be heavily affected by network externalities; the more people use a certain payment tool, the more convenient it becomes. The more consumers and merchants are acquired, the more widely the payment tool is used. While dominant payment methods depend on country specific factors, some areas have experienced the rapid growth of cashless payment tools that were driven by network externalities. For example, payment tools using a QR code have expanded in China within a short period of time, a mobile transfer service has rapidly grown in Sweden, and credit card payment services have become quite common in Korea.

In our country, what are the challenges to the expansion of convenient and secure cashless payment services? They could be network externalities; merchants' incentive to introduce new services. It is also worth stating how to eliminate psychological barriers for users.

Before one uses a new smartphone payment service there seem to be several barriers: to be interested in the service, to install the application software, to register a bank account or credit card information, and to make a payment by using a smartphone in a bricks-and-mortar shop.

Such an analysis of consumer behavior and psychology could provide valuable hints to create and expand new financial services for individuals and households, as well as retail payment businesses. The clues to promote new financial and payment services could be found through analysis of this.

Exploring measures to expand the size of markets would also matter. According to recent statistics, total credit card transaction volume stands at around 58 trillion yen per year, and that of electronic money about 5 trillion yen. However, recently many new settlement services, including those that cannot be grouped into these categories, have emerged. Tough competition for market share is occurring.

This can be viewed as a preferable environment within the context of promoting payment service innovations. Nevertheless, if each service ends up taking only a small share, network externalities would work less effectively. Service providers could cooperate to expand the size of markets, while competing with each other to facilitate innovation. The standardization of QR codes by a public, private, and academic joint initiative is a good example. Issues for discussion would include how relevant parties would push through these initiatives going forward.

## IV. Conclusion

Financial technology adopted for retail payments should be available everywhere across

the world. Nevertheless, it seems that country specific historical evolutions of financial and payment infrastructures have strongly influenced how much cashless payments are used, and what type of payment services are widely used within each region.

It would be undeniable, however, that new payment services could be accepted by users and merchants, either gradually or rapidly, and transform the landscape around retail payments, as smartphones have become common within the 10 years since their first appearance. The spread of the Internet and smartphones is generating a wave of change in retail payment methods. The adoption of image authentication technology for example, is being tested to make payment invisible, so that users can complete payments by just taking products from the shelves of retail shops without being aware of the payment process.

I hope that today's forum will provide you with an idea about the current situation and the challenges of cashless payments, and will help you to explore its future.

Thank you for your attention.