August 2016 Payment and Settlement Systems Department Bank of Japan

Summary of the Conference on Retail Payments on May 12, 2016^{*}

(*This is an English translation of Japanese original released on May 26, 2016)

[Executive Summary]

The Bank of Japan held the Conference on Retail Payments on May $12^{1,2}$.

Presentations were made on topics such as payment services utilizing new information technologies called "FinTech," the possibility of changes in the structure of supplying payment services in line with increasing new entrants and other factors, and problems in advancing and adding more value to payment services. A broad range of issues were lively discussed after the presentations.

Through the discussions, the participants shared the understanding that there is the possibility that retail payment systems will link to various new values, such as big data processing and interaction with real economic activities, and that business entities are working on these challenges using their ingenuity.

By utilizing new information technologies, the financial services that give more consideration to the characteristics of customers and the nature of transactions can be offered. It has also become possible to group people to attribute and provide financial services specifically arranged for each group.

Furthermore, various viewpoints were presented regarding problems in advancing and adding value to retail payment services. With the users of new financial services like FinTech increasing in number, it was pointed out that that identity verification and other security measures are growing in importance. Additionally, there were opinions calling for API³ opening and linkage and the sharing of data.

¹ Presenters and participants at this conference were invited from the public. They were from a broad range of sectors, including non-financial companies, payment and FinTech-related companies. (Please see the appendix for the list of participant companies and organizations.) ² Bank of Japan's Deputy Governor, Hiroshi Nakaso, made remarks at the opening of the conference.

⁽Available at http://www.boj.or.jp/en/announcements/press/koen_2016/data/ko160512a.pdf)

³ Application Programming Interface. Interface specifications to use the functions of operating systems and applications. An API open to the public is called an open API. Anyone is allowed to design and offer services using open API functions.

1. Presentations, Questions and Answers

○ Presenters from companies made presentations and each presentation was followed by an exchange of questions and answers with participants.

(1) Latest trends in retail payments (by Mr. Junichi Yoshida, NTT Data Corporation; Mr. Toshiyuki Koide, NTT Data Institute of Management Consulting, Inc.)

(Summary of the presentation)

The remarkable latest examples of retail payment-related services offered overseas include: 1) incorporating the function of enabling the cardholder's family to monitor the status of use into a prepaid card for the elderly according to the cardholder's ability to judge, thereby preventing the elderly from becoming victims of fraud; 2) marketing aimed at individual depositors through banks' smartphone apps; 3) a new insurance system that enables the saving of insurance premiums by forming a group



of individuals and providing an insurance product that is suitable for the characteristics of the group; and 4) identity verification by voiceprint authentication using smartphones.

Of main banking services, in contrast to the declining profitability of credit intermediation and proprietary investment activities after the Lehman Crisis, payment and settlement services have increased in their importance. It has become conspicuous that companies in other industries have made their entries into the payment market during the same period. Especially, mobile phone carriers and SNS and e-commerce service providers are offering payment services at bargain charges as a tool to attract customers to their main services. These new entrants may be threats to banks, but most recently there is a move to seek collaboration between banks and new entrants.



In Japan, if APIs are utilized in a more effective manner in the future, it will become possible to provide high value-added financial services satisfying the needs of individual customers by combining the information accumulated and analyzed by FinTech companies and the balance, deposit and withdrawal information owned by banks. If a model of mutual feedback is established, "Win-Win-Win" relations among a FinTech company, a bank and users will be constructed.

(Entrants from other industries into the payment market)

• It was pointed out that new entrants do not necessarily need to pursue profit from the

payment services alone because in many cases, they consider their payment services as a tool to attract customers. From the viewpoint of banks, with the provision of payment infrastructures incurring cost, retaining liquid funds is less beneficial than before in the current interest rate environment. Thus, banks feel that profit conditions surrounding payment services are becoming severe.

• In recent years, FinTech companies are rapidly growing in China and are grabbing the market share from existing payment service providers. For example, it appears that Union Pay's share in the number of mobile payment transactions has declined significantly, affected by the growing original payment networks of such companies as Alibaba and Tencent. Considering these environmental changes, Japanese providers of traditional payment services cannot afford to take it easy. Banks and other existing service providers should consider it as an important issue and how they should cope with the entries of competitors from other industries.

(Necessity to seek for the coexistence of FinTech and regulations)

• Whenever FinTech is discussed, conflict with existing regulations is pointed out. For example, FinTech enables the almost real-time remittances, while identification verification and anti-money laundering measures are becoming more and more severe, constituting a problem of seemingly contradictory requirements. However, the coexistence of FinTech and regulations may be possible if marketing and payment services can be offered by using an app that has the function of monitoring the state of use and the screening function.

(Necessity to hold discussion on the opening of APIs)

• It appears that the time has come to discuss to what extent APIs of Japanese banks' core systems should be open. In this discussion, CAFIS and ANSER should be included as they form the basic infrastructure of credit card payment networks, Internet banking, etc. and hold important positions in the Japanese retail payment system. It would be necessary to hold a constructive discussion between the financial industry and FinTech companies with the aim of extending the base of APIs.

(2) Advancement of services related to bank payments utilizing FinTech (by Mr. Mark Makdad, Moneytree KK)

(Summary of the presentation)

Moneytree provides services that enable each user to see his/her deposit balance, balance of deposited assets, credit card statements and other information at a glance by gathering such information from more than 2,500 domestic financial institutions based on the ID and PW information registered by users in advance.



In fact, this type of data aggregation services have been offered since the early 2000s by multiple

companies in Japan but many of them have stopped offering the services due to insufficient popularization. In contrast to this, our services are experiencing growth for the following reasons: 1) the emergence of cloud computing enables us to use low-cost, highly redundant and scalable infrastructure; 2) with the popularization of smartphones, which have a more personalized nature than PCs, we have set individuals as the main target of our services; and 3) data portability has improved and the use of APIs has advanced. Most recently, by linking our system to cloud accounting services via API, small and medium-sized company users can use the information aggregated by us when they file their final returns, etc.

I hope that new values will be generated by opening data through open APIs. For example, there is the possibility that more and more financial services may become accessible to people via mobile phone and its biometric authentication and other functions, instead of going to bank offices. From the viewpoint of banks, investment in new channels will increase in importance, rather than investing in offices and other traditional infrastructure.

(Significance of opening financial institutions' APIs)

• When looking at the FAQ page on aggregation service companies' websites, I find many comments showing that they are facing difficulties, including customer relations. For instance, even if a bank opens its API, it is only the bank's API, and the customer authentication method, usage procedures, services, etc. vary by bank. Thus, to offer data aggregation services, FinTech companies will continue to deal with the API of each bank. Opening of APIs by financial institutions might have a high potential

significance, while in order for venture companies to make use of this, it might be discussed whether usage procedures, services, the customer authentication method, etc. can be standardized. However, given that security technologies and services are evolving in daily competition, the opening of financial institutions' API alone might not act as a panacea.

• In order to offer data aggregation services in an environment where there is no API linkage, whenever financial institutions' internet banking websites are updated, the service provider has to use manpower to address the update. From the perspective of the development of the Japanese financial services industry as a whole, it is hoped that APIs will be opened so that new entrants will continue to stimulate innovation, and the situation is expected to gradually go in that direction.

(Benefits of open APIs in terms of security)

- Regarding security of data aggregation services, there is an aspect where a lack of API linkage might have a negative influence. The Internet banking user needs to provide the FinTech company that offers services with information necessary for log-in authentication and the account access authority.
- If a technology called OAuth is used in an API, authentication is performed by the customer, and the FinTech company can obtain an access token without owning the customer's ID and PW, thereby achieving a higher level of security. It appears that this system has gradually spread among financial institutions, including major banks.

(3) International remittances via virtual currency (by Mr. Yusuke Otsuka, ResuPress)

(Summary of the presentation)

ResuPress operates an exchange of virtual currency and offers international remittance services making use of virtual currency. Advantages in remittances via virtual currency include inexpensive charges, 24/7/365 availability, and almost real-time processing of remittance transactions.



These days, an increasing number of customers who have little knowledge about virtual currency and IT are using our services as an inexpensive means of remittance. Thus, we really feel that remittances via virtual currency are spreading among the "early majority." Furthermore, an increasing number of e-commerce and other websites accept virtual currencies as payment, and they also attract attention as a means to send small amounts

of cross-border donations.

In the future, it may be possible that, for international remittances, we will function as a back system of banks as an alternative to the conventional correspondent banking network—i.e., the bank will conduct legal currency transactions with customers, and we will act as an exchange between legal currency and virtual currency and send remittances to overseas virtual currency exchanges via virtual currency. It is hoped that these new services will enable users to choose the means of remittance according to their needs—to which they attach more importance, safety or low cost. It is also expected that lower international remittance charges will generate new demand for remittances.

(Importance of construction of a common protocol)

- The innovativeness of Bitcoin is considered to reside in its "protocol," which represents value by data and communicates them via IT infrastructure. When a financial institution expands its services, it would be important to construct a common protocol like Bitcoin, create new added value based on the protocol, and provide users with services.
- I agree with the comment that constructing a common protocol is the most important. It would be desirable that, when a user remits sovereign currency at a low cost, "virtual currency is being transferred based on a common protocol, but the user is not aware of that." Whether or not Bitcoin is the most suitable for such a protocol will be investigated in the future.

(High volatility of virtual currency)

- The processes required to be followed for international remittances via virtual currency include: 1) exchange legal currency in the sender country for virtual currency; 2) transfer virtual currency across borders; and 3) exchange virtual currency for legal currency in the recipient country. With the volatility of virtual currency staying at a high level, have any measures been taken to hedge against price fluctuations associated with the time taken for remitting funds and the handling of risk of fluctuations of the virtual currency exchange rate? Are customers well informed of price fluctuation risk?
- If banks and virtual currency exchanges are linked via APIs in the future, it might become possible that the above-mentioned processes from 1) through 3) will be performed in real time. If this is realized, virtual currency price fluctuation risk during the process of remitting funds might be reduced to almost zero.

(Identification verification for virtual currency transactions)

• Though it may be depending on the virtual currency exchange, identification verification for virtual currency transactions is in many cases performed in accordance with Japan Blockchain Association's guidelines. Under the guidelines, to pay virtual currency, the images of a photo ID and a photo of the customer with the photo ID in his/her hand are required to be submitted. At the same time, the customer's information is checked against information on anti-social forces and the past patterns of illegal use.

(4) Financial inclusion utilizing FinTech in emerging countries (by Mr. Makoto Goda, Nippon Biodiesel Fuel Co., Ltd.)

(Summary of the presentation)

Nippon Biodiesel Fuel is engaged in power generation and agriculture-related business in Mozambique, where many regions remain unelectrified. We have adopted an electronic money system using contactless IC card technology as a tool for payments for transactions with local residents associated



with our business. This system is used by the Food and Agriculture Organization of the United Nations (FAO) for distributing subsidies, and discussion is ongoing with the central banks of the Common Market for Eastern and Southern Africa (COMESA) regarding the possibility of the use of a similar model.

In Africa, M-Pesa and other mobile payment methods using mobile phones have attracted attention from the perspective of financial inclusion in areas where banks are inaccessible. Issues with these systems include that issuers are not banks but mobile phone carriers, who cannot add interest to the money deposited by customers and that these systems are not easy to use when using at shops. To address these problems, private banks have started issuing electronic money using M-Pesa's infrastructure, and efforts are being made to create systems that are easier to use at shops by utilizing contactless payment systems.

At this point, we are not engaged in investment of deposited funds as we do not have a banking license. However, we plan to establish a bank in Mozambique and invest deposited funds. In this connection, we are considering returning interest income to the community, instead of individual account holders, in a bid to help develop the regional economy.

(Identification verification for mobile payments)

• Strict identification verification is required when entering into a mobile phone contract in Mozambique. The electronic money issuer, who is the subsidiary of the mobile phone carrier, uses the same information for identification verification when entering into a mobile payment contract. We may face various problems in issuing electronic money after establishing a bank, so it would be necessary to consult with the central bank of the country as not many precedents exist.

(Usage charges for mobile payments)

• M-Pesa, which is prevalent in Kenya, levies not inexpensive charges on member stores, 3.5%-4% of the amount used by the customer. It appears that, however, member stores take advantage of avoiding risk of the theft of cash in stores even if they have to pay charges.

(Balance between innovation and regulations)

• Initially, M-Pesa started from sending credit for telephone calls among mobile phone users. Subsequently, it has added various services, developing into a payment system. Reflecting these circumstances, various regulations have followed. As this example shows, in an advanced area, it is necessary to pay attention not to hinder innovation by excessive regulations, while consideration should be given to safety.

(Solving social problems through FinTech)

• An Italian university carried out a program on microfinancing. In the program, with the awareness that young people, who suffer high unemployment, need to create jobs by themselves, high school students discussed social problems and considered microfinancing as a measure to fund necessary for solving such problems. As a result of the program, a positive atmosphere was created among the students. Money may sometimes damage relations, while it may help strengthen the community.

(5) Developments in the Advancement of International Remittance Services (by Mr. Yuji Takei, SWIFT Japan Ltd.)

(Summary of the presentation)

In order to respond to customer demand for "making payments at anytime, anywhere and instantaneously," retail payment systems are required to have such features as 24/7/365 availability, instantaneousness of transaction processes, from the issue of sending instructions to the arrival of money, finality, i.e., payments are irreversible, and reliability



backed by payment completion notice. In order to deal with value added services, it is important to ensure various access methods, simple sending instructions using mobile phone numbers, etc., service scalability utilizing APIs, and attachment of standardized payment information.

We received an order for a system to realize these features in Australia (NPP: New Payments Platform). The system is currently under construction, and it is scheduled to start operation in the third or fourth quarter of 2017.

Last September, we solved problems with conventional correspondent banking services (the time required from sending to the arrival of money, and predictability of charges) and launched a project to improve corporate customers' satisfaction in cross-border payments (GPII: Global Payments Innovation Initiative). We aim to realize immediate use of funds, improve transparency and predictability of inter-bank charges, track the flow of payment processing from the sender to the recipient, and ensure to send substantial payment information.

Additionally, consideration is ongoing from a medium- to long-term perspective regarding such topics as the applicability of blockchain and distributed ledger technology.

(Reasons why SWIFT was adopted for Australia's NPP)

• The reasons why SWIFT was adopted for Australia's NPP are: 1) NPP participating banks have already adopted our infrastructure and our system was considered to have the largest effect in reducing the investment amount; 2) SWIFT's status as a cooperative and its objective of maximizing the interests of members, not the organization, were positively assessed; 3) SWIFT's performance in Australia; and 4)

trust in redundancy, safety, and reliability of SWIFT's network services and suitability for standardization through ISO20022.

• SWIFT specializes in cross-border payments in Japan and it has not been deeply involved in domestic market infrastructure in the country, while it has been involved in domestic market infrastructure in many other countries.

(Handling of distributed ledger and virtual currency)

- Financial infrastructure requires: 1) strong governance; 2) data management; 3) compliance with regulatory requirements; 4) standardization; 5) identification verification framework; 6) security and response to cyberattacks; and 7) reliability; and 8) scalability. At this point, it is hard to say that distributed ledger technology has reached a practical use level in terms of these aspects. Currently, a number of entities are conducting demonstration tests aimed at application of distributed ledger technology to practical use, and an international project (Linux Foundation Hyperledger Project) is working to standardize blockchain technology.
- Currently, the main service of SWIFT is the provision of communication network and payments are made by using bank deposits. In the future, it may be possible that SWIFT will provide a payment tool, for example, by issuing virtual currency such as SWIFT coin.

(6) Application of blockchain technology to KYC (by Mr. Makoto Takemiya, Soramitsu)

(Summary of the presentation)

Soramitsu is developing a system of managing and sharing personal information necessary for identification verification using blockchain technology. Given that companies will be able to maintain more accurate information at a lower cost by realizing "the sharing economy of personal information," there are merits in sharing information among competing



companies. By combining our system with remittance and other systems, a higher level of security will be achieved making use of the characteristics of blockchain technology.

It would be technically possible that central banks issue legal digital currencies, using blockchain technology. Legal digital currency issued by a central bank will be able to be used at a low cost and 24/7 and enable the central bank to grasp all transaction information of users, thereby helping stabilize the financial system.

(Private-type blockchain and public-type blockchain)

- Domestic and overseas consortiums in their demonstration experiments prefer private-type blockchain, where limited participants are involved in verification, rather than public-type blockchain, where many and unspecified participants are involved. To spread the use of blockchain, there will be some issue on how we should think about the possibility of the proliferation of various types of private-type blockchain and how public-type blockchain and private-type blockchain should be differentiated.
- There are problems with public-type blockchain in terms of privacy and scalability. Although anybody can participate in a public-type blockchain, if the number of participants increases considerably, it will take time to form a block and it will become difficult to operate. From this perspective, it is likely that private-type blockchain, which is accessible only to consortium participants, will be easier for practical use.

(Restrictions on the processing capacity when the number of blockchain participants increases)

• Generally speaking, with the more the number of blockchain participants, the stronger restrictions on the processing capacity are. As a way to solve this problem, an interesting method is proposed in a paper on RS coin, published last December. Under the method, users are grouped by unit called "shard" and verification of transactions is dispersed to multiple systems.

(Ensuring authenticity of personal information)

• The authenticity of personal information (i.e., whether registered data really reflect accurate personal information) depends on the assumption that financial institutions thoroughly check the data before registration. Considering the possibility that accounts are traded after opening, it is desirable to confirm in some way that the account holder is the same as the actual user of the account. Specifically, this could be linked to fingerprint and other biometric authentication systems.

2. Presentations and panel discussion—The latest trends in retail payments in light of globalization (Moderator: Mr. Shuji Kobayakawa, Bank of Japan)

• After presentations by panelists, there was a discussion between participants and panelists.

(1) Decision-making in the transition period of innovation (by Mr. Tomohito Takusari, Yahoo Japan Corporation)

(Summary of the presentation)

Japan has held a leading position in the payment area in the world, introducing early the Zengin System and adopting FeliCa-based contactless payment systems. With technological innovation progressing, however, the generation of innovative services is constrained by existing systems, and I am seriously concerned



about such situation. For example, FeliCa-based contactless payment systems cannot be used for making large amount payments and on-line payments as there is no scheme in place to do communication and instant approval.

I would think that some problems could be addressed by using the ingenuity of the financial industry. We, in partnership with banks, offer e-commerce business-related payment services. Many banks do system maintenance "at night on Saturdays and Sundays," when the use of e-commerce increases and the number of transactions peaks. As a consequence, there are limitations on services that can be offered to users. In my view, this type of problem can be solved if banks figure out appropriate maintenance methods.

With the popularization of smartphones, major payment services offered in major countries have become borderless in terms of "payments" for the purchase of products, "remittances" between individuals, and the border between "real" and "net." Under these circumstances, it would be necessary for Japan to make the industry's all-out efforts to coordinate its policy on NFC and improve payment services.

(2) Essential elements for Japan's payment innovation from a users' viewpoint (by Mr. Toshihiro Eto, NTT DOCOMO)

(Summary of presentation)

With the spread of smartphones, a lifestyle of "before anything else, make use of smartphones" has taken root among users. In this environment, it has become a trend to add some value, in addition to payments using the smartphone. Such added value is



represented by "three Cs": 1) Coolness encouraging use; 2) Convenience of one-stop service; and 3) Charge-free for users.

Essential elements for companies to realize payment innovation in Japan would be: 1) sophisticated UI/UX^4 ; 2) collaboration among companies by opening APIs; and 3) drastic review of the cost structure (such as lowering of inter-company charges associated with connection with financial institutions and payments).

(3) Innovating for the future of payments (by Mr. David Kell, MasterCard Japan Office)

(Summary of the presentation)

The strength of MasterCard, I think, is to offer a safe and secure measures of card payment as a global network. If we are satisfied with status quo, however, we will become unable to respond to the needs of users. Thus, we are working to advance our services in terms of both convenience and safety.



Let me introduce our innovation-related efforts. From the viewpoint of convenience, we are working to maintain a high level of availability and response time of EMV contactless cards, which are widely used in Australia, the UK and other countries. From the viewpoint of safety, we offer services associated with the tokenization⁵ of card numbers as a measure against illegal use.

Additionally, we support business development of start-ups and introduce them to potential business partners.

⁴ User Interface/ User Experience.

⁵ Technology to replace card numbers and other confidential data by different strings of characters created from random numbers for storage and use purposes.

- Among recent overseas trends, it is noteworthy that companies offering similar services collaborate across borders via API with a view to expanding markets. For example, as a result of the partnership between US Uber and China's Alipay, which was announced recently, Chinese tourists who use the Uber taxi dispatch service in the US can use Alipay app not only for payments but also for calling taxis. Similar partnerships have been formed between US taxi dispatch service provider Lyft and China's Didi Kuaidi, as well as between US payment service provider Stripe and Alipay.
- Use of Alipay is expected to expand considerably also in Africa, China's large trading partner. We might consider offering Japanese payment services overseas in the future.
- I entirely agree with Mr. Nakaso's earlier statement, payment is a "chain of trust." From the perspective of offering services overseas, "safety," which is the strength of Japanese payment services, should be emphasized. On the other hand, taking into account the needs of individual users and the environment, we should not be overly cautious and miss the opportunity as a result of the excessive pursuit of safety. Meanwhile, to provide services continuously, it is important to have awareness of investment return.
- It is my understanding that the banking industry is making investment of several hundred million yen on a regular basis in improvement of the Zengin Net. Looking from the user side, however, I feel that the service level has not changed noticeably.
- I would think that the exporting of Japanese services and platforms to foreign countries is the ultimate goal. To this end, it is important to create the world's top level, highly convenient, innovative services in Japan.
- In countries that are tackling the problem of financial inclusion, there is demand for payment services that are highly reliable for both sellers and buyers. Japanese payment services should aim to be offered in global markets in the future.
- 3. Wrap-up (by Mr. Hiromi Yamaoka, Bank of Japan)
- Mr. Hiromi Yamaoka, Director-General, the Payment and Settlement Systems Department, the Bank of Japan, wrapped up the discussion at the conference as follows:
 - Let me summarize today's discussion into three points.
 - First, many views that innovations in information technology <u>enable the provision</u> of services that give more consideration to



the characteristics of individual users and transactions, including services considerate of each elderly person's ability to judge and asset management services for individual persons.

- I think that traditional financial services have been developed by creating certain types of "forms," such as the "bank transaction agreement," "uniform bill form," and the "prime rate." In contrast, today, more customized services can be offered by analyzing vast amounts of data thanks to innovations in information technology. I felt this is one of the characteristics of new financial services.
- Second, there is the possibility that retail payments will be linked to broad added value, including the "customized services" mentioned above, and it was impressive for me that companies are making various efforts to create such added value. The recognition was shared that there are a wide variety of sources of added value, for example, communication "protocol," big data analysis, "cool" UI/UX, and contribution to the real economy through rural development.
- The most interesting was discussion about a new direction. <u>Under innovations in</u> information technology, people are grouped by attribute, and insurance, remittance, interest addition and other financial services aimed at each group are provided. In this way, it has become easier to "create the cluster of people" via new information technology and this could lead to such issues as "adverse selection" in insurance and other areas. On the other hand, it would be possible to find effective ways of use, for instance delivering international aid to those who really need it in developing countries.
- Third, <u>various problems in further developing retail payments</u> were pointed out. Many
 in attendance commented that, in part by the rapid popularization of smartphones,
 FinTech-related services are spreading from among "specific customers who like
 state-of-the-art products" to "general customers including senior citizens." Many view
 that, in line with the increasing number of users of new financial services, identification
 verification and security measures will increase in importance. There was another
 noticeable comment that, in order to provide customized services to a broad range of
 individual customers, API opening and data sharing would be important.
- Meanwhile, there was a suggestion that, with innovations in information technology in progress, a central bank by itself issue digital currencies that can substitute for banknotes. Lively discussions are underway in various countries about this and there are a variety of viewpoints, including payment system, financial system and monetary policy. For example, looking at banknotes, information other than value is separated from the paper and privacy associated with transactions is protected. This could be problematic from the viewpoint of money laundering and other illicit activities, but

when viewing from a different angle, banknotes have contributed to the development of the modern free economy. There are various fundamental and interesting viewpoints regarding this, including what shape future means of retail payments that substitute for banknotes should take to protect information privacy, whether it will become "decentralized" means or "centralized" means. We at the Bank of Japan will carefully follow the issues.

(Appendix)

List of Participant Companies and Organizations

Name of Company/Organization	
bitFlyer	Norinchukin Research Institute
Deloitte Touche Tohmatsu	NTT Data
FinTech Association Japan	NTT Data Getronics
Fujitsu	NTT Data Institute of Management Consulting
FX Clearing Trust	NTT DOCOMO
Hewlett-Packard Japan	Orient Research
IBM Japan	ORIX
infcurion group	PayPal
Information Services International-Dentsu	ResuPress
International Bankers Association of Japan	Sagawa Financial
Japan Post Bank	SBI FXTRADE
Japan Securities Clearing Corporation	SBI Liquidity Market
Japan Securities Dealers Association	SBI Sumishin Net Bank
Japan Securities Depository Center	SIGMAXYZ
Japanese Bankers Association	Soramitsu
Japanese Banks' Payment Clearing Network	Sumitomo Mitsui Banking Corporation
JASDEC DVP Clearing	Sumitomo Mitsui Trust Bank
JCB	SWIFT
KPMG AZSA	SWIFT Japan
MasterCard Japan Office	The Bank of Tokyo-Mitsubishi UFJ
Mizuho Financial Group	Tokyo Financial Exchange
Monex	Tokyo Stock Exchange
Moneytree	transcosmos
Nikkei BP Consulting	Tranzax
Nippon Biodiesel Fuel	Visa Worldwide Japan
Nomura Holdings	Yahoo Japan
Nomura Research Institute	