Study Group on
Digital and Decentralized Finance

Interim Report

November 17, 2021

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Bank of Japan,
Deposit Insurance Corporation
Japan Bankers Association *
Japan Fund Clearing House Association*
Japan Securities Dealers Association*
Japan Crypto Asset Management Association*
Trust Association Japan*
STO Association*
Financial Information System Center**

* : Participated in the third and fourth meetings
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(Titles omitted, in alphabetical order)

Introduction

The use of digital fund transfer services is gaining traction in Japan, on the back of accelerating digitalization in the economy. Various attempts are underway to construct a digital platform for security products that could achieve active transactions at lower costs. Internationally, the possibility of using new financial technologies to improve cross-border remittances, while addressing risks, including the treatment of global stablecoins has been discussed actively. In July 2021, the Study Group on Digital and Decentralized Finance (hereinafter referred to as the "Study Group") was established in the Japanese Financial Services Agency to promote innovation in the private sector while ensuring appropriate user protection.

This report presents the results of discussions of the four meetings from July 2021 to November 2021, focusing on policy responses to stablecoins, for which prompt regulatory responses are needed.

1. Trends in Digital and Decentralized Finance and Overview of Discussions

Digitalization in financial services has accelerated recently with the development of information and communication technology. Since the advent of Bitcoin in 2008, which makes use of blockchain technology, transactions using crypto assets have spread globally. The innovative features of blockchain technology have been spotlighted. Both financial and non-financial sectors have attempted to take advantage of them.

Looking back over the past decade, a series of regulatory reforms have led to the creation of new financial services in Japan, responding to the progress of digitalization; fund transfer services used to be carried out exclusively by traditional financial institutions such as banks, but some of them are currently performed by fund transfer service companies; the regulatory framework for crypto asset exchange service providers was introduced, providing enabling environment for crypto asset transaction services.

Globally, on the payment and settlement front, a white paper on so-called global stablecoins was first publicized in 2019. Major central banks, including the Bank of Japan, have been experimenting with Central Bank Digital Currency (CBDC).

On the securities front, various attempts are underway to achieve low-cost and active transactions by transforming traditional securities into digital tokens. A platform called De-Fi (Decentralized Finance) has emerged to provide applications to trade crypto assets. Some De-Fi platforms have claimed that there is no specific administrator who can be accountable for the entire IT system that underlies financial services provided.

The Study Group has examined proper policy responses to accelerated digitalization in financial services worldwide, including Japan. The Study Group started discussions with issues related to payment and settlement services, taking into account technological perspectives and related international discussions.

(1) Decentralized Financial System

A decentralized financial system typically uses distributed ledgers with the following features: participants with different authorities or responsibilities share a common ledger; information on the timing when the process is executed is recorded in the ledger

under an agreement among specific participants or unspecified participants; some ledgers have smart contracts on top, enabling the process to run automatically should certain conditions be met.[1]

A distributed ledger could offer the advantage of eliminating a single point of failure. It could also ensure transparency, simplify post-trade-verification and make falsification more difficult, depending on the design. On the other hand, these properties would require a large amount of computational resources, depending on the consensus algorithm to be adopted. There could be challenges related to security issues such as data privacy and proper management of private keys.

Reference: Existing System - Transportation (Prepaid) IC Card

In the Study Group, the features and challenges of the existing system were presented by a member as follows, referring to the transportation (prepaid) IC card system.

The conventional existing system, taking an IC card as an example, uses an IC card with built-in hardware having a secure arithmetic function and a terminal to read and write the IC card. Data related to transactions are initially recorded in a lower system that constitutes a part of the entire system. Then the data is transmitted to a higher system, thereby making a final record.

In this system, the upper system basically trusts the data received from the lower system. The advantages of this system include low calculation cost and quick off-line processing. On the other hand, it must ensure that centralized administrators are resilient to external attacks, while such requirement is common for any IT systems and not particular to the IC card system. For this purpose, a standard for third party evaluation and certification for the system has been established.

[1] A smart contract generally refers to a rule (contract) that is written as a program and automatically executed on a distributed ledger. In this regard, there was an opinion that public entities should consider verifying the safety of codes in the form of licensing and other measures, as the code written in the smart contract could be defective.

(2) Classification and Features of Distributed Ledgers

Distributed ledgers could be divided into two types: permission-less ledgers, in which there are no restrictions on participation in the network; and permission-based ledgers, in which participation in the network requires permission from the administrator.[2]

The Study Group pointed to the following opportunities and challenges on permission-less distributed ledgers and the system using them.[3]

Opportunities include:

- Single Point of Failure can be eliminated
- Participants can autonomously create and execute custom-made transactions with smart contracts, including the ones with complex conditions attached
- Services can be freely provided and used by anyone, the nature of which could turn to a source of innovation

Challenges include:

- Those responsible for the entire system are not clear
- Even transactions found to be socially inappropriate could be automatically executed and might be difficult to cancel ex post.
- Compliance with AML/CFT requirements could be insufficient with the underling system that allows P2P transactions – transactions between parties without identity verification by supervised financial institutions – and the nature of its electronic transfer of value that does not entail a physical limit for the amount of carrying, unlike cash
- Services have been widely used in the economy prior to sufficient verification by relevant stakeholders, including academia.[4]

[2] There are other categories such as (1) public, (2) private, and (3) consortium. It appears that there are no established views accepted globally on a classification for distributed ledgers.

[3] The Study Group focused on the discussion of financial services using permission-less distributed ledgers.

[4] There was an opinion that it took more than 20 years for the Internet to be commercialized, from the start of verification by academia in 1969 to commercialization in the early 1990's, while Bitcoin, the source code of which was released in 2009, was commercialized without the sufficient verification of its safety by academia.

The benefit of multi-stakeholder dialogues among engineers, authorities and academia was indicated as a tool to foster a common understanding of challenges and collective actions to address them.[5,6]

(3) Stablecoins and related International Discussions

Financial services in payment and settlement using distributed ledgers have recently observed rapid growth in transactions using stablecoins in the United States and other countries, which aim to peg their value to a fiat currency.[7]

Many stablecoins appear to be used as a part of crypto-asset transactions.[8] The lack of proper management of customer funds has been pointed to some stable coin arrangements.[9] At present, such stablecoins are traded on a permission-less distributed ledger in the same manner as crypto-assets including Bitcoin. The Financial Action Task Force (FATF) has indicated the high risks associated with money laundering/terrorist financing (ML/FT).[10]

On the other hand, experiments to improve securities and business-to-business settlement are underway using permission-based distributed ledgers. As these experiments address the issues of user protection and AML/CFT, they could be widely used for payment and settlement services in the future.

Since the announcement of the Libra Initiative in June 2019 by the consortium led by Facebook, international standard-setting bodies, such as the G20, the Financial Stability Board (FSB), and the FATF have been discussing policy responses to the so-called global stablecoins.[11]

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[5] The Blockchain Governance Initiative Network (BGIN) established in March 2020 is one example of such dialogue. BGIN aims to develop a sustainable blockchain community, as well as provide an open and neutral forum for building a common understanding among all stakeholders and for cooperating in solving the issues facing them. Its immediate objectives are: (1) to form an open, global and neutral dialogue among multiple stakeholders; (2) to build a common language and understanding based on the diverse perspectives of each stakeholder; and (3) to build an academic foundation through the constant development of reliable documents and code with an open source approach. (Reference) BGIN official website: https://bgin-global.org/

[6] There was an opinion that disclosures of discussions on dialogues and exchanges of views among relevant parties, which could be provided in the form of minutes, would enhance transparency and contribute to fostering further accumulation of subsequent deliberation.

[7] President's Working Group on Financial Markets (PWG), the Federal Deposit Insurance Corporation (FDIC) and the Office of the Comptroller of the Currency (OCC), "Report on STABLECOINS" November 2021

[8] See footnote 7 for Report on STABLECOINS

[9] For instance, in February 2021, New York State Office of Attorney General made an agreement with iFinex, Tether and related parties to require them to cease further trading activities with New Yorkers, as well as force the companies to pay $18.5 million in penalties, in addition to requiring a number of steps to increase transparency.

[10] FATF, "Report to the G20 Finance Minister and Central Bank Governors on So-called Stablecoins," June 2020

[11] FSB, "Regulation, Supervision and Oversight of Global Stablecoin Arrangements - Final Report and High-Level Recommendations," October 2020; CPMI and IOSCO, "Consultative Paper, Application of the Principles for

The European authorities announced a draft regulation on crypto assets, including stablecoins in September 2020.[12] In the United States, the Presidential Working Group on the Financial Markets (PWG), after expressing the view in July 2021 that an early development of a regulatory framework is necessary, released a report on a regulatory policy response in November 2021.[13]

2. Main Issues related to Financial Services Using Permission-less Distributed Ledgers

(1) Overview

Some financial services currently using permission-less distributed ledgers are predicated on the IT system with multiple layers[14], under which the power and authorities of central administrators is limited to a part of the layers. The conventional financial regulatory and supervisory frameworks, however, generally require financial institutions to be accountable for the entire IT systems, as a responsible entity to fulfill their regulatory mandate.

Financial services widely used in the economy must have reliable IT systems that underpin services. Where no entity is accountable for the entire IT systems of multiple layers, the entire system must be adequately disciplined by relevant factors, including technology, contracts, a regulatory framework, incentives and trust. The entity who is subject to regulations must realize such conditions.[15,16]

Financial Market Infrastructure to Stablecoin Arrangement," October 2021; IOSCO, "Global Stablecoin Initiatives," March 2020

[12] The European Commission's draft regulation (published in September 2020) defines a stablecoin as an electronic money token – a type of crypto asset whose main purpose is to be used as a means of exchange and that purports to maintain a stable value by referring to the value of a fiat currency that is legal tender – and an asset-referenced token – a type of crypto asset that purports to maintain a stable value by referring to the value of several fiat currencies that are legal tender, one or several commodities or one or several crypto assets, or a combination of such assets. The draft regulation defines a crypto asset as a digital representation of value or rights which may be transferred and stored electronically, using distributed ledger technology or similar technology.

[13] See footnote 7 for Report on STABLECOINS

[14] Systems using a permission-less distributed ledger could be characterized in multiple ways. One way could be to divide the system into three layers: a business layer (3rd layer) in which the central administrator of the entire business exists, a layer (2nd layer) automatically executed by the code of the smart contract, and a layer (1st layer) of the distributed ledger itself.

[15] Such discipline is considered to be established including in a state in which trust exists among the participants in the system. While "trust" has multiple interpretations, the meaning of trust in this context could be similar to the following: (1) the intention to entrust one's own vulnerabilities to the other party's behavior based on the expectation that the other party will take important actions regardless of whether the other party is monitored or controlled; and (ii) the degree of belief that the other party will act as expected without confirming the actions. Even under the existence of trust, inappropriate acts could occur. In such cases, it is considered natural that the actors will be held accountable under the system that entails disciplinary actions.

[16] There were opinions questioning the feasibility of requiring the entity subject to regulations to realize the described

In doing so, it is critical to take full advantage of technology, such as IT system specifications. This point was discussed by referring to aircraft design, manufacturing and operation, and the following points were raised.[17]

- The regulatory authorities should indicate the required functionalities and levels of IT systems used for financial services, while being neutral to the selection of technology.[18,19]
- It is important to create an environment that encourages relevant stakeholders to act appropriately, including providing an incentive to third parties to disclose the results of a system reliability check.[20]
- The regulatory authorities should continuously update the required functionalities and levels while urging service providers to keep up with them, as related risks evolve with technological progress.

The regulatory authorities should engage in close dialogue with relevant parties, including the engineer community, and share the required functions and levels with them so that the financial sector could embrace the benefit of new technologies. Moreover, the regulatory authorities should secure human resources with technical expertise and knowledge to enhance the effectiveness of such dialogue.[21,22,23]

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conditions, as some arrangements do not provide a certain party with enough power and authorities to be accountable for the entire system, or might be based on a system consisting of multiple layers.

[17] The framework to ensure the safety of aircraft operations is similar to the one discussed for financial services using permission-less distributed ledgers in its structure of achieving the objective of safe operation of aircraft as a whole while separating the relevant parties into multiple layers. In the event that safety issues occur in the aircraft system, the integrator, who manufactured the aircraft and is the primary responsible entity, is responsible for investigating the cause of the issues and ensuring safety before re-operating the aircraft. There is also a mechanism for ensuring safety by ensuring the responsibility of integrators, which includes mutual authentication between countries, outsourcing of authentication processes to the private sector, and flexible responses to exceptional services.

[18] There was an opinion that the supervisor should sophisticate a monitoring approach to financial institutions' IT systems management, including by shifting its focus from an institutional arrangement such as governance to the contents of computer programs.

[19] There was an opinion that clarifying the requirements for the system that underlies financial services (such as the protection profile and security target) would lead to creating a sense of security for users.

[20] ISO15408 has been established as a standard for third parties to evaluate and certify the security of products and systems that use information technology. There was an opinion that such an established standard could become a good litmus test for users to judge whether they can safely use services and the underlying technology. There was also an opinion that it was important to search for a viable mechanism, while clarifying the division of roles and responsibilities in the overall services and providing appropriate incentives.

[21] There was an opinion that the required level of IT systems that underlie financial services should be clarified first before discussing technical issues, and that once this is clarified, the authorities could discuss with engineers what technical measures can be taken. There was also an opinion that both financial risks and IT system risks should be examined in detail.

[22] For instance, the Financial Information System Center (FISC) has discussed the issues related to cloud service prior to its introduction by financial institutions at an expert meeting – consisting of financial institutions, cloud service providers, IT vendors, security vendors, Fintech Association, audit firms, and the authorities – and published a preliminary report.

[23] See footnote 5 for BGIN.

(2) Prerequisites for Payment and Settlement Services

The payment and settlement services widely used in the economy should meet the following standards, not to mention the safety and resilience of the underlying IT system:

① Clearly defined rules regarding the transfer of rights (including related procedures and timing).[24]

② Full compliance with AML/CFT requirements[25]

③ Proper protection of user's rights through measures such as the unwinding of transactions and compensation for losses under stressed conditions, in the event of insolvency of an issuer or intermediary, or in case of a technical failure or problem.[26]

In an attempt to comply with AML/CFT requirements, it is vital to utilize technology such as IT system specifications. At present, the following functionalities should be considered in IT system specifications.

- Prevent transfer of rights to users whose identities have not been verified.
- Freeze the outstanding balance of users whose identities have not been confirmed.[27]

The regulatory framework could require intermediaries (or issuers as necessary) to adopt IT systems that satisfy the functionalities mentioned above in taking necessary measures to ensure proper and secure conduct of registered (or licensed) business. It could also require the registered (or licensed) entities to explain how their IT systems

[24] Principle 8 (Settlement Finality) of the Principles for Financial Market Infrastructure (CPMI-IOSCO April 2012) states that "an FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time."The key considerations of Principle 8 state that "an FMI's rules and procedures should clearly define the point at which settlement is final," as well as "an FMI should clearly define the point after which unsettled payments, transfer instructions, or other obligations may not be revoked by a participant."

[25] Stablecoins are considered to entail a high risk of money laundering, as they address the shortcoming of conventional crypto assets with a price stability mechanism and are therefore more likely to be used globally and widely over conventional crypto assets. The updated guidance of the FATF (October 2021) clearly states that stablecoins are subject to the FATF standards as either crypto assets (virtual assets) or other financial assets. The guidance provides the following examples of risk mitigating measures for P2P transactions at the national level; controls that facilitate the visibility of P2P activity and/or VA activity crossing between obliged entities and non-obliged entities; ongoing-risk-based enhanced supervision of VASPs and entities operating in the VA space with a specific focus on un-hosted wallet transactions; requiring VASPs to facilitate transactions only to/from VASPs and other obliged entities; placing additional AML/CFT requirements on VASPs that allow transactions to/from non-obliged entities; and guidance highlighting the importance of VASPs applying a risk-based approach to dealing with customers that engage in or facilitate P2P transactions.

[26] "Issuer" refers to an entity which provides a mechanism for issuing, redeeming, and stabilizing value for digital-money-type stablecoins, while "intermediary" refers to an entity which provides customer contact for transfer, management, and transactions. (See 3. below for details).

[27] An alternative approach was indicated by a member that permits IT system specification in which users can be traced and identified or processing can be suspended as needed when problems occur.

meet such functionalities to the authorities.

In this process, the regulatory authorities should clarify and thoroughly disseminate information on the perimeter of regulations to prevent an adverse impact on innovation. This consideration could be crucial in determining the treatment of matching applications for P2P transactions, which should also take into account the discussions in FATF and other related forums.

3. Legal and Regulatory Framework related to Stablecoins

(1) Types of Stablecoins and Existing Digital Money

Although there is no clear definition of so-called stablecoins, it is generally considered to be a digital asset that aims to stabilize value in relation to a specific asset and uses a distributed ledger technology (or similar technology).[28]

Building on the existing legal and regulatory framework, stablecoins aiming at stabilizing value in relation to a fiat currency can be classified as follows according to the stabilizing mechanism.

(a) Digital assets issued at a price pegged to the value of a fiat currency (e.g., 1 coin = 1 yen) while promising redemption at par (the same price as the issue price) (and other digital assets with equivalent features)[29] (digital-money-type stablecoins)

(b) Digital assets other than (a), including those using algorithms in an attempt to stabilize value[30] (crypto-asset-type stablecoins)

The current use cases of stablecoins are as followed:

(i) Digital-money-type stablecoins have been experimented with to see if they could be commercialized in payment and settlement services, including those related to securities settlement and inter-company settlement.[31] Some of them could evolve

[28] FSB, "Regulation, Supervision and Oversight of Global Stablecoin Arrangements -- Final Report and High-Level Recommendations," October 2020

[29] In the Payment Service Act, crypto assets, the dealing with which requires the registration of crypto asset exchange service companies, are defined as excluding currency-denominated-assets, which must be dealt with by banks or registered fund transfer service companies. The digital assets pegged with a basket of fiat currencies that promise redemption at par are considered to fall into currency-denominated-assets.

[30] For instance, stabilizing mechanisms of stablecoins could be market intervention underpinned by a certain algorithm so that the exchange ratio with a fiat currency is within a certain ratio, should stablecoins be available for trading at exchanges. However, the cases of an abrupt plummet in value have been pointed to such stablecoins arrangement.

[31] It appears that many of these experiments are structured to clarify the responsibilities of issuers and to address

to function as the existing digital money[32] that is widely used in the economy as a means of payment and settlement.

(ii) Both digital-money type and crypto-asset-type stablecoins are used as a part of crypto assets trading. Various risks and issues are pointed out with regard to digital-money-type stablecoins, which relate to underlying assets held by issuers and include the risk of failing to fulfill redemption promises and opaque disclosure.[33,34]

Digital-money-type stablecoins and crypto-asset-type stablecoins differ presumably in terms of their functions to be fulfilled in the economy, their legal interests to be protected, and the issues in financial regulation and supervision. Therefore, the extension of their different treatment in the existing legal and regulatory frameworks is considered appropriate. In considering regulatory responses, issues related to user protection should be addressed properly.

(2) Digital-Money-Type Stablecoins and Existing Digital Money

Digital-money-type stablecoins in general are currently provided in a manner in which the issuer and intermediary are separated using distributed ledgers or an equivalent system.[35] However, as described above, it can evolve to function as digital money that is widely used in the economy as an electronic instrument of payment and settlement services.

On the other hand, existing digital money services are currently provided, with the issuer being accountable for the entire service. In the future, however, a new business model separating the issuer from intermediary could emerge.

Based on the principle of "same business, same risk, and same rule," the revision of the existing legal and regulatory frameworks should be considered. It should allow the

AML/CFT issues using permission-based distributed ledgers.

[32] In Japan, so-called digital money is issued by banks and funds transfer service companies (the latter is different from the former in that the latter is subject to the limit of transfer amount per transaction and restrictions on the handling of customers' assets). So-called electronic money encompasses both digital money issued by banks and funds transfer service companies and prepaid payment instruments. Unlike banks and funds transfer service companies, the issuer of prepaid money instruments is not allowed to provide redemption to users. In addition, the issuer is not subject to legal obligations related to AML/CFT measures, such as customer identification in transactions imposed by the Anti-Criminal Proceeds Act.

[33] Issues associated with the use of permission-less distributed ledgers exist as well. (See 2. (2)).

[34] Even digital-money-type stablecoins could fall into the category of securities prescribed in the Financial Instrument and Exchange Act. In this case, the regulations prescribed in the Financial Instrument and Exchange Act could be applied.

[35] The function of issuer and intermediary is described in (3) below.

separation between the issuer and intermediary, while being applied holistically to digital money and its equivalent as a whole, including the existing digital money, and not limited to digital-money-type stablecoins.

(3) Considerations on the Separation between Issuer and Intermediary

The functionalities of electronic payment and settlement services can be broadly divided into the following three elements, if focusing on the ones performed by service providers.

(i) Providing mechanisms for issuance, redemption and stabilization of value (which usually include management of underlying assets and custody services);
(ii) Providing services to transfer the rights of users, (which usually include transaction verification mechanisms);
(iii) Providing services related to customer contacts for management and transactions (which typically include wallet services to manage customers' private keys and business applications to enable coin transactions);

The existing legal framework for digital money in Japan is predicated on the underlying assumption that the single entity is accountable for performing the functions of (i) to (iii) above. The following points were raised on this framework.

- The requirements of the financial regulation and supervision are different in terms of (i) the functionalities of issuance and related operations (the main function is to receive and manage funds from users) and (ii) the functionalities of transfer and management (the main function is customer management including compliance with AML/CFT regulations and system management) .
- Digital money legislation of the European Union (EU) separates (i) the functionalities of issuance from (ii) the functionalities of transfer and management. Stablecoins prevailing in the United States and other countries also take similarly separate forms.[36]
- The use of distributed ledgers makes it easier for multiple entities to share ledgers while providing functions (i) and (ii) separately.
- Where functions (i) and (ii) are separated in providing services, the application of

[36] The European Commission (EC) has published a draft regulation of the European Union (EU) on crypto assets including stablecoins, under which the regulatory framework separates issuer from crypto asset service providers - those who manage custody, exchange, and trading platforms.

the Payment Service Act to the related parties is not necessarily clear. For instance, it is not clear whether appropriate regulations for user protection, AML/CFT and the stability of settlement are consistently applied to the relevant parties － including those who promise redemption at par but whose possibility of redemption is questionable － or stablecoins arrangements that enable trading in the same manner as crypto assets.

It is appropriate to explore the establishment of a legal and regulatory framework that is flexible and sufficient but not overly stringent, which enables payment and settlement services separating (i) the functions of issuance from (ii) the functions of intermediary. Such a framework should take into account the use of distributed ledgers (or similar ones) and strike a right balance between promoting innovation and protecting users.[37]

The framework should require the clear redemption rights of users and the establishment of a comprehensive governance framework to clarify the accountability of relevant parties involved, taking into account the high level recommendations for the global stablecoin arrangement published by the FSB.[38]

(4) Legal and Regulatory Framework related to Issuer and Intermediary

① Issuer

Under the current legal framework, issuing and redeeming electronic instruments of payment and settlement services, including digital-money-type stablecoins, falls under the act of fund transfer[39] that requires a bank license or registration as a fund transfer business company.[40,41]

Regarding the issuer's functions (i) (issuance, redemption, and provision of a value

[37] In practice, various arrangements could be conceivable; one entity performs functions (i) and a part of functions (ii) (iii) or multiple entities perform functions (ii) (iii). The regulatory framework described later should be properly applied to relevant entities, taking into account the functions performed by respective entities.

[38] FSB "Regulation, Supervision and Oversight of Global Stable Coin - Final Report and High Level Recommendations" October 2020.

[39] The definition of fund transfer is not explicitly stated in laws, but according to the Supreme Court decision, "fund transfer" means accepting or accepting and executing a request from a customer to transfer funds using a mechanism for transferring funds without directly transporting cash between remotely located parties.

[40] The current law requires the entity issuing stablecoins overseas to obtain a bank license or registration as a funds transfer service company if it intends to distribute them domestically in Japan.

[41] The Financial Instruments and Exchange Act could be applied to digital-money-type stablecoins and crypto-asset-type stablecoins, depending on the nature of related arrangement. The characteristics of coins should be properly explained to users based on the relevant laws and regulations.

stabilization mechanism), the user's right to claim redemption against the issuer should be clearly secured and appropriately protected, including in the event of the insolvency of the issuer or intermediary.[42,43]

The following schemes, while not exhaustive, could satisfy the requirements related to the redemption right of users, assuming the separation of the issuer and intermediary and building on the existing legal frameworks and prevalent business practices.[44]

- Based on the current business practice of fund transfer using a bank deposit account, a scheme in which an intermediary, who has been granted the authority of representation by the bank, administrates the transfer of funds between individual users' bank accounts (so-called joint-named bank deposits in which the intermediary administers the share of individual users' bank deposits among the total of joint-name bank deposits)[45,46,47]
- As a scheme to which the existing Trust Law applies, a scheme in which an intermediary sells or transfers the trust beneficiary rights, for which all the trust assets are managed with demand deposits at banks[48]

Electronic instruments of payment and settlement services could be issued through various schemes other than those described above. Any stablecoins arrangement

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[42] According to the Financial System Study Group Interim Report (June 2018), "ensuring the implementation of functions" and "protecting user assets" are "the interests to be achieved" by financial regulations.

[43] Stablecoins are currently used in the United States as part of crypto assets trading. According to the U.S. Report on Stablecoins, stablecoins redemption rights can vary considerably in terms of who may present a stablecoin to an issuer for redemption and whether there are limits on the quantity of coins that may be redeemed. The report also points to some arrangements permitting the postponement of redemption payments for seven days, or even suspension of redemption at any time. Moreover, crypto-asset trading platforms typically manage their customers' stablecoins in wallets under which customers' assets are not segregated, while each transaction is recorded in off-chain internal books. Taking such arrangements and current practices for transactions and storage of stablecoins into account, the assessment is that under the Japanese legal system, a user cannot enforce the redemption claim directly to an issuer in case of insolvency of an intermediary (see "Study Group on Virtual Currency Exchange, Sixth Report 3 (October 2018)", Financial Services Agency).

[44] There was an opinion that any scheme should be carefully designed to address potential legal issues, such as perfection of rights against third parties. It was also pointed out that further consideration would be needed for cross-border transactions.

[45] The scheme assumes that the bank administers the total amount of joint-name deposits, while the intermediary subject to the regulation and supervision by the authorities administers the individual deposit amount of each account holder, and each account holder has a direct claim against the bank.

[46] Bank deposits could be demand deposits - either settlement deposits for which the total amount of deposits are covered by deposit insurance, or other general deposits for which the upper limit is placed for the coverage of deposit insurance.

[47] Fund transfer service companies could be an issuer. In such cases, the existing restrictions placed on them would be applied, such as the upper limit of transfer amount per transaction and restrictions on management of user funds.

[48] In this case, a trust company as the trustee would be treated legally as an issuer of the electronic instrument of payment and settlement services. In addition, the exemption from the application of the Financial Instruments and Exchange Act could be considered for the trust beneficiary rights for which all the trust assets are managed with demand deposits at banks, given the nature of trust assets.

which lacks a sufficient level of user protection should not be permitted.

② Intermediary

The regulatory framework to be introduced for intermediaries dealing with digital-money-type stablecoins, who (i) transfer and (ii) act as points of contact with customers for management and transactions as a business, should determine its perimeter – the scope of actions that require registration and accompanied supervision.[49] It should properly cover not only the current transactions and trading practices of stablecoins prevailing overseas, taking into account their similarities to those of crypto assets, but also the so-called joint-named bank deposit and trust schemes mentioned above.[50,51,52]

Considering its functions, an intermediary should take enough measures to provide appropriate information to users on electronic instrument of payment and settlement services and to comply with AML/CFT requirements. Such measures should include appropriate IT system development.[53] These requirements have been applied to registered crypto-asset exchange service providers. Moreover, no intermediaries to be registered should deal with electronic instruments of payment and settlement services that lack a sufficient level of user protection, including those issued overseas, as registered crypto-asset service providers have been required to do.[54,55]

③ Discipline Covering Both Issuer and Intermediary

Furthermore, payment and settlement services should be provided properly as a whole. Sufficient measures should be taken to achieve appropriate coordination

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[49] The scope of actions subject to regulations could be the ones to buy, sell, exchange, or mediate such actions, and manage electronic instruments of payment and settlement services.

[50] The conceivable actions of an intermediary are as follows:
Joint-name bank deposit schemes – administer the outstanding amount of individual account holder and transfer funds between account holders as the representative of the bank
Trust schemes – sell to users or transfer between users of trust beneficiary rights, for which the entire trust asset is managed with demand deposits at banks. The change of trust ledgers requires the authority to represent trust companies.

[51] Once the regulation for intermediaries is introduced, any entities who conduct regulated actions without registration could be subject to criminal charges.

[52] The exemption the registration as a Type I Financial Instruments Business under the Financial Instruments and Exchange Act could be considered for the entities who buy and sell trust beneficiary rights for which all the trust assets are managed with demand deposits at banks.

[53] There was an opinion pointing to the benefit of introducing a monitoring approach using new technologies for the supervisor to cope with an increase in transaction volumes.

[54] Crypto asset exchange service providers are required to take necessary measures to avoid dealing with crypto assets that could lack a sufficient level of user protection.

[55] There was an opinion pointing to the need for technical and institutional measures to prevent intermediaries from misusing user funds.

between the issuer and intermediary and clarify their respective roles and responsibilities for users.[56,57,58]

(5) Regulatory Discipline on Global Stablecoins

Electronic instruments of payment and settlement services used on a large scale or used for cross-border settlement can have a significant impact on financial stability, including the impact of their issuance and redemption on the financial market. A higher level of regulatory discipline is required.

The regulatory disciplines discussed in ⑷①through ③ for digital-money-type stablecoins are in line with the high level recommendations for global stablecoins published by the FSB. Risk-based supervision under these disciplines could address the potential additional risks posed by global stablecoins, including the impact on financial markets. Risk-based supervision on stablecoins should be calibrated, taking into account their structure and scale of operations.[59]

[56] Specifically, the following items could be conceivable as requirements.
- Clarification of persons responsible for managing incidents such as IT system malfunctioning that could cause damage to users
- Clarification of procedures related to redemption to users
- IT system specifications meeting AML/CFT and other regulatory requirements.

[57] An issuer and intermediary could be subject to the regulatory measures required for fund transfer service companies for the purpose of protecting users, such as formulating compensation policies for illegal transactions, given the potential usefulness of an electronic instrument of payment and settlement services.

[58] Both issuer and intermediary would be required to properly administer user information. There was an opinion pointing to the need for broad measures to cope with the potential misuse of user funds by an intermediary.

[59] For instance, as the funds received by banks issuing electronic instruments of payment and settlement services are managed by banks themselves, the regulatory framework related to banks' capital and liquidity positions could address the potential impact on financial markets that could be triggered by abrupt redemption requests by users in times of market stress.

Reference: Issues related to Crypto-Asset-Type Stablecoins

The discussions so far have focused on issues related to digital-money-type stablecoins. This reference briefly introduces issues related to crypto-asset-type stablecoins.

Where stablecoins fall into the category of crypto assets stipulated in the Payment Services Act, persons who buy, sell, exchange, or mediate such actions, and manage crypto assets are regulated as crypto-asset exchange service providers. Moreover, crypto asset exchange service providers are obliged to take necessary measures to avoid dealing with crypto assets that could lack a sufficient level of user protection, taking into account their characteristics of arrangement and other features. The self-regulatory organization on crypto assets confirms the appropriateness of crypto assets, in case crypto asset exchange service providers apply to deal with new crypto assets.

Stablecoins could fall into the category of securities prescribed in the Financial Instruments and Exchange Act. In this case, the disclosure regulations and business regulations prescribed in the Financial Instruments and Exchange Act could be applied; the registration of a Type II Financial Instruments Business could be required in cases where an entity issues or solicits the right to transfer electronic records by itself; the registration of a Type I Financial Instruments Business could be required should an entity handle the solicitation of the right or acts as an intermediary for the purchase and sale of the right.

4 Central Bank Digital Currency (CBDC)

Digitalization in vast areas both inside and outside Japan, on the back of rapid advances in information and communications technology, could rapidly enhance the social needs for CBDC in the future. In response, central banks in various countries, including the Bank of Japan, are experimenting with CBDC.[60]

CBDC could be perceived as one of the major movements in the trend toward digitalization of payment and settlement systems. It could be considered in the context of prevailing private digital money, including stablecoins. CBDC, coupled with private digital money, should contribute to enhancing the quality of financial services, making them cheaper, more convenient and safer to use.[61]

In designing CBDC, the public policy principles on the Retail CBDC announced by the G7 should be taken into account. From the perspective of financial supervision intended to maintain financial stability and protect users, the following points should be explored.[62]

- Address the impact on the financial intermediation function of banks and possible implications on financial stability in times of crises.[63]
- Consider flexible systems that urge progressive challenges of the private sector to promote innovation, while coexisting with private payment and settlement services.
- Clearly define rights and obligations of services to ensure user protection[64]
- Respond to AML/CFT requirements[65]

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[60] For instance, in July 2021, the European Central Bank (ECB) announced the start of a two year CBDC review phase. In addition, China has been experimenting with CBDC on a large-scale since October 2020. In Japan, the Basic Policy on Economic and Fiscal Management and Reform 2021 states, "Based on the results of the experiment by the end of FY 2022, the government and the Bank of Japan will organize the framework of CBDC, and consider the feasibility of pilot experiments and CBDC issuance, along with associated legal issues." The Bank of Japan plans to experiment with Phase 1 of the Proof of Concept from April 2021 to March 2022 and then shift to Phase 2 of the Proof of Concept in April 2022.

[61] There was an opinion pointing to the importance of CBDC, assuming that it was plausible that highly convenient private digital money would occupy a monopolistic or oligopolistic market position.

[62] Announced at the G7 Minister of Finance and Central Bank Governors' Meeting on October 13, 2021.

[63] A large shift from bank deposits of corporates and households to CBDC could affect the financial intermediation function of private banks. Such impact should be considered both on the entire financial system and on the individual financial institutions. Also, the fact that a digital bank incurs risks in times of financial crisis have been pointed out. Specific product designs and related institutional arrangements – such as the maximum amount of CBDC's holdings and transactions and the interest paid to CBDC – should be considered, taking these perspectives into account.

[64] Under a hierarchical system involving the Bank of Japan and multiple intermediaries, the following points would need particular attention: the method and timing of the transfer of rights; the handling of erroneous bookings and records; and the handling of failed intermediaries. These points could be considered along with the specific product and institutional design of CBDC, taking the treatment of rights in the current settlement system into account; for example, the practice of bank deposits and the handling of government bonds under the Act on Book-Entry Transfer of Corporate Bonds.

[65] For instance, both the Bank of Japan, which is a book-entry transfer institution, and private financial institutions,

- Address issues related to the privacy and protection of personal information[66]
- Take into account the future possibility of being used in vast areas, including cross-border settlement

which are account management institutions, under the Corporate Bonds and Other Book-Entry Transfer Act are subject to the legal obligations under the Anti-Criminal Proceeds Act.

[66] There was also a cautious view against public entities holding the transaction information of a large number of citizens.

Closing

The results of the discussion on the policy response to stablecoins is summarized above. The Study Group hopes that the Financial System Council's Working Group on Fund Transfer and Settlement, established in September this year, will further discuss legal and regulatory issues related to stablecoins.

Digital and decentralized finance has undergone a rapid change in services and transactions, including areas other than payment and settlement, such as securities, crypto assets and De-Fi. The Study Group will continue to grasp the current situation properly, including from a technical perspective, and explore policy responses, while aiming to promote innovation and taking into account user protection and AML/CFT compliance.

References

Progress of the Discussion

The Study Group held a total of four meetings before compiling the interim report. The dates and themes of each meeting are as follows.

(2021)

(1) July 26 Research, Actual Conditions, and views on the Agenda of the Study Group (General Discussion ①)

* Presentation by Mr. Matsumoto
  "Outline of Blockchain Technology and its Significance"
* Presentation by Dr. Kurita
  "Features and Issues of the Current System"

(2)September15 Research, actual conditions, and ideas concerning the issues to be discussed by the Study Group (General Discussion ②)

* Presentation by Dr. Matsuo
  "Communication for Regulation in the Age of Decentralized Finance - Learning from BGIN's Process"
* Presentation by Dr. Noda
  "Smart Contracts and Decentralized Finance (De-Fi)"

(3) October 6 Main issues related to financial services using permission-less distributed ledgers and issues related to stablecoins ①

* Presentation by Dr. Yokozeki
  "Concept of certification for systems requiring high safety (referring to aircraft design, manufacturing and operation)"

(4) November 1 Basic issues related to financial services using permission-less distributed ledgers, stablecoins and Central Bank Digital Currency (CBDC)

* Presentation by Mr. Okuno (The Bank of Japan)
  "Bank of Japan's Efforts on CBDC"