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Financial Law Board

Summary of Discussion on Status of Virtual Currency under Private Law[1]

1. Introduction

The amendment to the Payment Services Act came into effect on April 1, 2017, providing for the definition of the term "virtual currency" and introducing new regulations including a system requiring registration of virtual currency exchanges and other related service providers. However, this statute does not directly provide for the rights of virtual currency holders or the status of virtual currency under private law, and it cannot be said that these topics have been fully discussed so far. In view of such circumstances, this paper studies the status of virtual currency under private law, taking up Bitcoin as the main subject.

2. Outline of virtual currency

Virtual currency is electronically recorded property value that functions as a currency. Under the Payment Services Act, the major elements of the definition of the term "virtual currency" are as follows: (i) it can be used in relation to unspecified persons as a means of payment for goods or services; (ii) it can be purchased from and sold to unspecified persons; (iii) it can be transferred by means of a computer network; and (iv) it does not fall within the scope of any legal currency or currency-denominated assets ("currency-denominated assets" are assets denominated in a legal currency, or for which performance of obligations, refunds, or anything equivalent thereto is supposed to be made in a legal currency). This definition focuses on the functions of virtual currency based on the assumption that virtual currency holders can exclusively manage the currency they hold.

In Japan, the term "currency" is considered to refer to coins and Bank of Japan notes that are legal tender, which can be used to make valid payments (i.e., payees cannot refuse to accept such

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[1] This document is a summary of a Japanese language publication dated December 2, 2018 (the full text of which can be found at the following link):
http://www.flb.gr.jp/jdoc/publication55-j.pdf
In this document, "this paper" refers to the full Japanese language version of the publication described above.

payments). Virtual currency, for which such effect is not assured by law, does not fall within the scope of "currency" in this meaning. Virtual currency also differs from conventional types of electronic money (prepaid payment instruments) in that electronic money as a prepaid payment instrument is issued by a specific entity, whereas virtual currency does not always assume the existence of an issuer or manager. Prepaid payment instruments that can be used only at participating stores and merchants are distinguished from virtual currency that can be used in relation to unspecified persons.

3. Status of discussion

The legal nature of virtual currency is not easily explainable within the traditional framework of private law that governs property rights. It would be difficult to directly recognize "ownership rights" (*shoyuken*) to virtual currency such as Bitcoin. Under the Civil Code, only "tangible assets" (*yutaibutsu*) are eligible to be the object of ownership rights, and it has been a common view that the exclusive right to use information requires a statutory basis (for example, an intellectual property law). There is a case in which a lower court denied ownership rights to Bitcoin. At the same time, it is also difficult to explain virtual currency as a claim (*saiken*). As mentioned earlier, virtual currency, unlike prepaid payment instruments, does not always assume the existence of an issuer, and therefore it cannot itself be regarded as a claim against a specific person.

4. Status of virtual currency under private law—Points of discussion on the law for ownership and transfer

(1) Analytical viewpoints

Elucidating the status of virtual currency under private law is not an easy task. Accordingly, this paper organizes the points of discussion from the following viewpoints. First, (i) the issue of legal evaluation of virtual currency per se and (ii) the issue of the law for ownership and transfer of virtual currency are intertwined, but these issues are still different by nature and the differences should be fully recognized when we address those issues hereinafter. Based on this premise, this paper focuses on the second issue (i.e., the issue of the law for ownership and transfer of virtual currency) as the main topic of study because, in practice, the status of virtual currency under private law is usually addressed in this context. Secondly, it should be noted, as discussed in more detail below, different views on a general theory regarding the law for ownership and transfer of virtual currency would not necessarily bring about different conclusions on specific issues. Since the ultimate goal of this paper is to clarify the specific issues that we often encounter in practice,

the sections below introduce several theories argued about the law for ownership and transfer of virtual currency, with an emphasis on analyzing the respective viewpoints of these theories rather than attempting to prioritize any specific arguments.

(2) Theory that applies "*real rights law*" or a similar rule to ownership and transfer of virtual currency

The first theory applies law for "*real rights*" (rights in rem; *bukken*) or a similar rule to ownership and transfer of virtual currency. Virtual currency such as Bitcoin is nothing more than data that indicates a ledger balance. However, technology platforms such as blockchain technology enable specific persons to use virtual currency or such data exclusively and to transfer the state of enjoying such exclusive use to any third party. Based on such feature of virtual currency, the proponent of this theory explains that real rights law, which provides legal protection for any person's exclusive control over "assets," or a similar rule is applicable to ownership and transfer of virtual currency as well. However, some people question why it is necessary to bring up *real rights*, which are recognized for "tangible assets," when the law for exclusive ownership and transfer of virtual currency is examined.

(3) Theory that explains that the issue of ownership and transfer of virtual currency is governed by the law for ownership and transfer of "*property rights*"

Another theory explains this issue as one involving the law for ownership and transfer generally applicable to "*property rights*" (*zaisanken*), which encompasses both real rights (rights in rem; *bukken*) and claims (rights in personam; *saiken*). This theory considers that the legal concept of real rights is not prerequisite to providing legal protection for ownership and transfer of virtual currency. Under private law, not only real rights but also personal rights and other rights belong exclusively to specific persons, and the holders of those rights may transfer or otherwise dispose of their rights under legal protection. Real rights may differ from personal rights and other rights in terms of their substance and the manner in which the rights are enforced, but it is hardly possible to find any reason for making a distinction between real rights and personal rights with regard to the level of legal protection to be provided to their respective holders as long as their nature of belonging exclusively to specific persons and authorizing the transfer thereof is taken into consideration. It follows that the ownership and transfer of particular property or property value should be analyzed as an issue of ownership and transfer of "*property rights*", without specifically determining the nature of the rights concerned—that is, whether they are real rights, personal rights, or any other rights. It is pointed out, however, that the Civil Code provides nothing

explicitly about ownership and transfer of *property rights* (*zaisanken*)—a concept that covers both real rights and personal rights—and that the issue of ownership and transfer of a virtual currency cannot be explained based on that concept.

(4) Theory that explains the law for ownership and transfer of virtual currency based on an "agreement"

The third and last theory attempts to explain the law for ownership and transfer of virtual currency based on an "agreement" among network participants. Virtual currency, which need not be assumed to exist outside its network, is expressed by a kind of program code. It is not an objective existence but a human creation. Nonetheless, virtual currency—mere program code—can be held or traded because (not only the creator of the code but) people who hold or trade the virtual currency believe in and act in line with the code. There seems to be a consensus or a kind of agreement among network participants that what is expressed by the code can be owned or transferred. Viewed as such, it is possible to explain the law for ownership and transfer of virtual currency under private law based on an "agreement" among network participants. It is, however, pointed out that there is no actual matching of the intentions of two or more parties in the network, i.e., one to offer and the other to accept, and that it is different from an agreement or contract in the traditional sense, which means that it does not completely fit into the traditional framework of contract law. (Taking this criticism into consideration, such an "agreement" is hereinafter put in quotation marks in order to distinguish it from an agreement in the ordinary sense.)

(5) Summary

The above sections so far have reviewed three examples of theories regarding the issue of ownership and transfer of virtual currency such as Bitcoin. Among them, compared to the former two theories—one that points out the applicability of *real rights* law or a similar rule, and the other that explains based on the law for ownership and transfer of *property rights*—the third theory, which is based on the concept of "agreement," adopts a different approach in that it attempts to present a law for ownership and transfer of virtual currency and the basis of its binding force without looking into the legal nature of virtual currency per se. However, the differences between these approaches are not determinative. The third theory can be structured in such a way that the parties have reached an "agreement" to apply real rights law or a similar rule, or to comply with the law governing property rights with regard to ownership and transfer of virtual currency. In this respect, the first two theories do not necessarily contravene the third theory or vice versa. It would be fair to say that the third theory and the other two theories constitute arguments at

different levels.

What is important is that these three theories aim in the same direction, i.e., providing legal protection for exclusive ownership and transfer of virtual currency. They all contemplate a law that is equivalent to real rights law or property rights law as a means of providing legal protection, although they employ different approaches to explain this point.

However, such an explanation alone may not always be sufficient to determine more specific rules applicable to ownership and transfer of virtual currency (for example, whether virtual currency is eligible for real rights protection, as discussed in section 5(1) below). Therefore, the discussion will go deeper to the extent necessary to examine those specific issues.

5. Study of specific situations

Based on the analysis in section 4 above, the sections below address specific situations in which the treatment of virtual currency under private law is at issue. It should be noted that in studying each specific situation, virtual currency does not presuppose the existence of the world outside the network, but this does not mean that all transactions and legal relationships involving virtual currency can be explained by way of its behavior on the blockchain. For example, when Bitcoin is used as a means of payment, how Bitcoin is transferred from the debtor to the creditor, who are both network participants, is basically an "on-chain" issue. However, since virtual currency is not legal tender, an agreement is required to be reached between the creditor and the debtor outside the network with regard to the transfer of Bitcoin to make it a valid form of payment. Thus, when discussing legal relationships that may arise in specific situations, it is also important to distinguish on-chain and off-chain events.

(1) Transfer by any person who is not a legitimate holder of Bitcoin

The first situation to study is where a person who is not a legitimate holder of Bitcoin hacks a private key and illicitly transfers it to the person's own address or a third party's address. What rights can the original Bitcoin holder claim to have?

The original holder is considered to have the right to demand return of unjust enrichment (Article 703 of the Civil Code) and the right to demand damages in tort (Article 709 of the Civil Code) against the illegitimate holder. Even though different approaches are adopted to explain the status of virtual currency under private law as discussed in section 4 above, there may be no

reason to object to this view given that the original holder sustains a loss in property value.

Then, a question arises as to whether the original holder has a right based on "real rights" (or a similar right) to demand the return of the transferred Bitcoin against the illegitimate holder. If such right is recognized, the transferred Bitcoin would not be mixed into the illegitimate holder's general estate in the event that the person is subject to legal insolvency proceedings, and the original holder as legitimate owner would have the right of segregation of the Bitcoin from the bankruptcy estate or the like, in which case the rights of the original Bitcoin holder would be more likely to be protected by law than the case where the original holder is not considered to have a right to demand based on real rights (or a similar right).

There are arguments for and against the idea of recognizing the original Bitcoin holder as having a right based on real rights (or a similar right) to demand the return of the transferred Bitcoin. According to the argument supporting this theory, the original right holder is identified by tracking the records in the ledger on the blockchain, and if the person who is registered as the right holder is not the true right holder, the Bitcoin in dispute will be vested in the true right holder. Then, if the illegitimate holder sells or otherwise transfers the Bitcoin to a third party, can the true right holder demand the return of the Bitcoin against the third party as well? This question may be answered by balancing the interests of the true right holder and that of the third party in reference to the theory of good faith acquisition (*zen-i shutoku*) that is intended to protect persons who have acquired movables or securities in good faith and without (gross) negligence.

The opposing argument is that the right holder is determined only on the basis of the records on the blockchain. According to this argument, the original Bitcoin holder cannot be considered to have a right based on real rights (or a similar right) to demand the return of the transferred Bitcoin. This argument adopts the doctrine applicable to money, i.e., "the possessor is the owner." Since money itself does not have any characteristics but only represents value (for exchange), it is basically considered that the value represented by coins and banknotes belongs to the person who has effective control over—or in a word, "possesses (*senyu*)"—these things, and ownership of these things can be transferred by transferring the possession of them. The effective control over virtual currency such as Bitcoin is realized by exclusively managing the balance electronically recorded on the blockchain by way of a private key and its corresponding address. Assuming that ownership of Bitcoin is determined only on the basis of the records on the blockchain, and Bitcoin itself is transferred whenever the transfer is recorded on the blockchain, one would arrive at the conclusion that the original holder does not have a right based on real rights (or a similar right) to demand the return of the transferred Bitcoin.

The difference in the arguments regarding whether the original Bitcoin holder should be considered to have a right based on real rights (or a similar right) to demand the return of the transferred Bitcoin is not directly linked to the differences in the theories discussed in section 4 above. This issue cannot be resolved only by considering how the rules for exclusive ownership and transfer of virtual currency should be explained, but it involves legal evaluation of Bitcoin per se in more specific detail as virtual currency that is being actually traded on the blockchain. If Bitcoin can be legally considered as "currency" or its equivalent that serves as a means of payment available in settlements or sales with unspecified persons, it would be possible to consider that ownership of Bitcoin is determined only on the basis of the records on the blockchain and is subject to the doctrine applicable to money, i.e., "the possessor is the owner." However, there can be a variety of views as to whether Bitcoin (or any other virtual currency) can be deemed to be "currency" or its equivalent in such sense, partly because how virtual currency will be accepted in society in the future is still uncertain. Therefore, this paper only reviews the relevant arguments and refrains from going further to determine only one of them as a valid conclusion.

(2) Deposits of virtual currency

The next topic is the type of rights held by depositors of Bitcoin.

In most cases, virtual currency is sold and purchased via an exchange that offers a place for trading. Typically, each user who wishes to trade Bitcoin signs up with an exchange, opens a customer account under the management of the exchange, and deposits Bitcoin with the exchange. Although the actual conditions differ among exchanges, it may be common practice that while individual customers engage in trading virtual currency on their own accounts, the exchange is responsible for the management of the virtual currency on the blockchain. When a customer deposits Bitcoin with the exchange, it is sent from the customer's address to the exchange's address, and the parties make an agreement outside the network that this transaction is a *deposit*. In such case, a question arises as to the type of rights that the customer would have against the exchange, and, in particular, whether the customer would have the right of segregation in the event that the exchange (the party receiving the deposit) is subject to legal insolvency proceedings.

Opinions are divided as to whether deposits of Bitcoin could result in a situation where the deposited Bitcoin belongs to a person other than the person recorded as its holder on the blockchain, as in the case discussed in sub-section (1) above. On the other hand, unlike the case of transfer by an illegitimate holder, there is a legal relationship (e.g., an agreement on *deposit*)

between the depositor and the receiving party outside the network. Therefore, the details of the rights held by the customer against the exchange may be basically defined depending on the interpretation of an off-chain contract.

If Bitcoin is not assumed to belong to any person other than the person recorded as its holder on the blockchain, and the person who has effective control over Bitcoin on the blockchain by way of their private key and the corresponding address is considered to be the true owner (that is, the doctrine applicable to money, i.e., "the possessor is the owner," is deemed applicable to Bitcoin as well), Bitcoin would be considered to belong to the exchange that has effective control over it. On the other hand, if Bitcoin is assumed to belong to a person other than the person recorded as its holder on the blockchain, the depositor would be able to have a right based on real rights (or a similar right) to demand the return of the deposited Bitcoin (which can be regarded as the right of segregation in legal insolvency proceedings). However, if a deposit of Bitcoin is interpreted as a deposit of fungibles (*shohi kitaku*) (or a similar deposit) under the contract between the customer and the exchange, the customer (the depositor) cannot have such a right based on real rights regarding the deposited Bitcoin. Therefore, this issue should be considered specifically in light of the details of each off-chain contract between the parties.

Even if Bitcoin is considered to belong to the exchange, there is room for discussion as to whether the right held by the customer against the exchange should always be regarded as a personal right or a claim. Even when Bitcoin is considered to belong to the exchange, if there is a trust (*shintaku*) set up for Bitcoin, the Bitcoin placed in the trust as trust property does not constitute the trustee's non-exempt property, and the beneficiary may assert the right of segregation of the corresponding money in the trustee's possession. Accordingly, the next section examines whether it would ever be possible to set up a trust of virtual currency, and, if so, whether the exchange can be designated as the trustee and the customer as the beneficiary.

(3) Trust of virtual currency

Can virtual currency be placed in a trust? Irrespective of which theory is adopted among those discussed in section 4 above, they all reach the same conclusion that exclusive ownership and transfer of virtual currency can be protected by law, and, hence, it is possible to place virtual currency in a trust. A trust requires the existence of *property* (trust property) as its essential element (see Article 2, Paragraph 1 of the Trust Act). The scope of "property" under the Trust Act is considered to include any property that can be converted into monetary value (positive property) and segregated from the settlor's property. Even though different approaches are

employed to explain the status of virtual currency in section 4 above, it can at least be said that virtual currency has attributes as required to be trust property, and, hence, whichever approach is adopted, it is considered to be possible to set up a trust of virtual currency.

When a virtual currency exchange intends to use a trust to preserve virtual currency that constitutes a customer's assets, (i) it may conclude a trust agreement with a third party, namely a trust bank or trust company, and place the virtual currency in the trust, in the same manner as setting up a customer-segregated fund trust, and (ii) as pointed out in sub-section (2) above, a question arises as to whether it is possible for the exchange to set up a trust of virtual currency for which the exchange itself serves as the trustee. Segregation of trust assets would be an important factor of the requirements for approving the creation of a trust mentioned in item (ii), but this issue has not been fully discussed and needs to be further studied in the future.

(4) Effects on parties other than network participants—compulsory execution, inheritance, etc.—

There are no views that deny the enforceability of compulsory execution (attachment) to virtual currency such as Bitcoin, regardless of the approach adopted to explain a general theory regarding the status of virtual currency under private law. As long as exclusive ownership and transfer of virtual currency can be protected by law, virtual currency can be the subject of compulsory execution. However, since it is impossible to transfer Bitcoin without the cooperation of the debtor who holds the private key, the difficulty in ensuring a workable compulsory execution is being pointed out as a practical problem.

Similarly, in connection with legal insolvency proceedings, which are comprehensive execution proceedings, virtual currency such as Bitcoin that has been held by the debtor is considered to belong to the bankruptcy estate or the like. For example, in bankruptcy proceedings, any property that has property value and can be a source of funds to be distributed to bankruptcy creditors is considered to be eligible to constitute the bankruptcy estate. In actual cases of an exchange's bankruptcy, proceedings are conducted on the assumption that Bitcoin belongs to the bankruptcy estate.

Inheritance is another event in which the legal relationship between network participants and third parties becomes a problem. Considering that exclusive ownership and transfer of virtual currency such as Bitcoin can be protected by law, virtual currency that has been held by the decedent should be deemed to constitute the decedent's estate when inheritance takes place.

6. Conclusion

This paper attempts to summarize the points of discussion on the status of virtual currency under private law—a topic that has not been fully discussed in court decisions and academic theories—focusing on the law for ownership and transfer. It is difficult to completely explain the status of virtual currency under private law by employing the conventional framework of private law, but the study in this paper has found the possibility that legal protection would be provided for exclusive ownership and transfer of virtual currency, irrespective of which theory is adopted among those discussed on a general theory. It has also been revealed that a difference in the explanation on a general theory does not necessarily bring about different conclusions on specific details, and that, for some points, the discussions on specific details reach the same conclusion despite the differences in the theories on a general theory.

It is quite significant in practical terms that the study in this paper has summarized these points of discussion to a certain extent. With regard to the status of virtual currency under private law, there are other points that have not been fully discussed which need to be further studied in the future. It is hoped that this paper will be the starting point of those future discussions.