

CROSS-BORDER SETTLEMENT INFRASTRUCTURE FORUM BRIEF No. 4

KEY ASPECTS OF UNIDROIT PRINCIPLES ON DIGITAL ASSETS AND PRIVATE LAW

AUGUST 2024

Introduction

The Cross-Border Settlement Infrastructure Forum (CSIF) is a program under the Asian Bond Markets Initiative (ABMI) that aims to enhance financial market infrastructure in the region of the Association of Southeast Asian Nations plus the People's Republic of China, Japan, and the Republic of Korea—a grouping collectively known as ASEAN+3. CSIF regularly collaborates with the ASEAN+3 Bond Market Forum (ABMF), another ABMI initiative.¹

CSIF promotes safe and efficient cross-border financial transactions, including using local currency bonds as collateral and addressing payment and settlement systems issues. It serves as a platform for dialogue among policymakers and operators of bond and cash settlement infrastructure to facilitate cross-border bond and cash settlement, and to develop common principles and models for regional financial market infrastructures.

The ABMI Medium-Term Road Map 2023–2026 emphasizes “digital transformation” as a key strategy for integrating and standardizing ASEAN+3 bond markets. ABMI members, including CSIF members, are incentivized to introduce new technologies and business models, such as distributed ledger technology, that can impact the functioning of financial market infrastructures and the digital assets they enable.

To help regional policymakers, regulators, and market participants better understand digital assets, their classification, and related considerations, the Asian Development Bank (ADB) is publishing a series of CSIF

HIGHLIGHTS

- Given the existing variation in the definition of digital assets, it is necessary to establish principles on the legal treatment of digital assets to facilitate their incorporation into national laws and regulations as required.
- The International Institute for the Unification of Private Law's (UNIDROIT) Principles on Digital Assets and Private Law (the Principles) aim to achieve high predictability in transactions and provide common ground and global legal certainty in the treatment of digital assets by unifying and harmonizing essential parts of private law.
- UNIDROIT recommends each jurisdiction adopt rules that conform to these Principles. In response, each jurisdiction may formulate laws and regulations that reflect the Principles.
- The concepts of “control” and “proprietary rights” are essential aspects of the UNIDROIT Principles and are closely intertwined; only what is subject to control can be considered a digital asset, and such control may affect the proprietary rights of an owner of digital assets. At the same time, use of the term control in this brief does not refer to what is legally restricted in each jurisdiction; it is a functional concept.
- The Principles also review the concept of “linked assets” (i.e., the issuance of digital assets on the basis of existing conventional or other digital assets).

¹ The ABMF was established under the ABMI in May 2010 by the finance ministers of ASEAN+3. The ABMF is the only regional platform in which actions and recommendations are reported for ASEAN+3 policy discussions. It functions to integrate ASEAN+3 markets through the standardization and harmonization of regulations and market practices, as well as market infrastructures relating to cross-border bond transactions. ABMF members comprise national officials and experts, as well as international experts, and are drawn from public and private sector organizations.

Briefs on these subjects, given CSIF's focus on new technologies and cross-border subjects. This brief series previously detailed the definitions of digital assets in *CSIF Brief No. 3: An Introduction to Digital Assets* and continues in this brief with an introduction and review of the substance of the digital asset principles developed by UNIDROIT. The series will continue with a brief dedicated to the many issues, challenges, and opportunities inherent in digital assets, and it will close with a brief that reviews the status quo in ASEAN+3 markets, covering the legal and regulatory framework, current digital asset examples, challenges, opportunities, as well as future plans.²

ADB, ABMF, and the CSIF Secretariat team would like to express their gratitude to the ABMF and CSIF members and observers, as well as subject matter experts, for their information, support, review, and advice in compiling this series of briefs.³

Who is the International Institute for the Unification of Private Law?

The International Institute for the Unification of Private Law (UNIDROIT) is an independent intergovernmental organization governed by the UNIDROIT Statute to which member economies must accede. As of the end of May 2024, 65 economies were members of UNIDROIT.

Its purpose is to study the needs and methods for modernizing, harmonizing, and coordinating private law, especially commercial law, among jurisdictions and groups of states, and to develop and formulate uniform law instruments, principles, and rules to achieve these objectives.⁴

Cross-Border Settlement Infrastructure Forum

The Asian Bond Markets Initiative (ABMI) was launched in 2003 by the finance ministers of the Association of Southeast Asian Nations plus the People's Republic of China, Japan, and the Republic of Korea (collectively known as ASEAN+3) to boost the development of local currency bond markets. The Asian Development Bank has been acting as the ABMI Secretariat since its inception.

The Cross-Border Settlement Infrastructure Forum, which has central banks and central securities depositories (CSDs) as members and ASEAN+3 government officials as observers, is a subforum under ABMI that promotes more active intraregional portfolio investments by creating an efficient regional settlement intermediary.

Cross-border transactions in bonds and other securities are currently processed through custodians and a correspondent banking network (depending on currency), generating an inevitable time lag between the time of trade and the delivery of securities and money, thus increasing credit and settlement risks. To address this problem, the Cross-Border Settlement Infrastructure Forum member organizations agreed to establish a CSD–real-time gross settlement linkage, which directly links the settlement systems of central banks and CSDs. The linkages among national CSDs and central banks' real-time gross settlement systems in different regional markets are expected to facilitate intraregional portfolio investments and the use of local currency bonds as collateral, which otherwise have been locked in onshore markets, by enabling cross-currency delivery-versus-payment of cross-border securities transactions, as well as payment-versus-payment of local currencies in the region, without a time lag.

² *CSIF Brief No. 3: An Introduction to Digital Assets* is available on *AsianBondsOnline*, as well as the ADB website at <https://www.adb.org/publications/introduction-digital-assets>.

³ This CSIF Brief was written and compiled by Satoru Yamadera, advisor to the Economic Research and Development Impact Department of ADB; and Shigehito Inukai and Matthias Schmidt, ADB consultants; with support from Jiwoong Choi, ADB financial sector specialist; and valuable input and expertise from ABMF and CSIF members, and other subject matter experts. A presentation to ABMF members in July 2023 by Hideki Kanda, professor emeritus of the University of Tokyo, member of the UNIDROIT Governing Council, and chair of the UNIDROIT Working Group on Digital Assets and Private Law, laid the foundation for this brief and led to a subsequent dialogue with the authors. Parts of this brief have also been adopted from an interview with Kanda, "Roundtable Talk—UNIDROIT's Proposed Principles on Digital Assets and Private Law," published (in Japanese only) in the August and September 2022 issues of *New Business Law* (No. 1223 2022.8.1. and No. 1225 2022.9.1., respectively). The CSIF secretariat team bears sole responsibility for the contents of this brief.

⁴ Private law is law that concerns how individuals and firms can or must interact with one another, in contrast to public law, which governs the interactions between the state and individuals or businesses. Adapted from Harvard University. 2022. Harvard Law School. *Areas of Interest*. <https://hls.harvard.edu/areas-of-interest/private-law/>.

The uniform law instruments prepared by UNIDROIT have traditionally taken the form of international conventions, designed to apply once all formal requirements for their entry into force in a particular jurisdiction have been completed (i.e., “hard law” instruments). However, alternative forms of unification have become increasingly popular where a binding instrument is not considered practical or essential. Such alternatives (i.e., “soft law” instruments) may include the following: (i) model laws that jurisdictions may take into consideration when drafting domestic legislation; (ii) sets of principles that contracting parties, arbitrators, judges, and regulators may decide to use; (iii) legal or contractual guides that aim to provide information; (iv) guidance on best practices; and (v) advice for a variety of beneficiaries.

Generally, there may be three ways to unify and harmonize international laws: (i) a treaty itself is directly applied (self-executing) by jurisdictional parties to form domestic law, (ii) another law is used when a convention is ratified by a jurisdictional party and made into domestic law, and (iii) the applicable standards and principles for them are proposed. The UNIDROIT Principles on Digital Assets and Private Law (the Principles) aim for the third approach. At the same time, UNIDROIT does not expect jurisdictions to amend their framework if a domestic interpretation of the contents of the Principles has already been established.

The development of these Principles is ongoing and UNIDROIT is finalizing its publication in French. An informal translation of the Principles into Japanese is also under discussion.

Purpose and Scope of the Principles

The Principles are related to digital assets generated or supported by new technologies that have developed rapidly in recent years and significantly impacted socioeconomic and legal fields beyond their respective jurisdictions.

In line with the mandate of UNIDROIT, the Principles are designed to increase legal certainty and predictability regarding private law issues about digital assets covered by the Principles. From a global perspective, these Principles provide legal professionals,

judges, national policymakers, digital asset businesspersons, and all stakeholders with new, but realizable norms to follow without being bound by stereotypes and traditional ways of thinking.

UNIDROIT set up the Working Group on Digital Assets and Private Law to determine the scope of the Principles; its meetings were held between November 2020 and March 2023, and a meeting of the Board of Directors in May 2023 formally endorsed its work. The final English version of the Principles became available in October 2023. The chair of this project was Hideki Kanda, professor emeritus of the University of Tokyo, who is also a board member of UNIDROIT.⁵

The working group examined various digital assets—including crypto-assets, central bank digital currencies, and security tokens—and looked at initial coin offerings and non-fungible tokens since these types of digital assets are frequently the subject of commercial transactions. Members also took into consideration lessons from the Model Law on Electronic Transferable Records conceived by the United Nations Commission on International Trade Law in 2017, which gave electronic records the same legal standing as traditional, paper-based records.⁶ The working group also studied the actions of parties in various transactions involving these types of assets and, by extension, the legal considerations in relation to digital assets. The work included providing formal definitions of digital assets from a legal perspective (contained in Principle 2: Definitions, as explained later in this brief) and determining the legal characteristics of digital assets on which the Principles could expand.

The Principles provide clear rules applying to critical aspects of transactions involving those types of digital assets, as well as guidance on how existing national law may need to be adapted to accommodate or cater to digital assets. Principle 1: Scope also recommends that the relevant national law should specify which category of assets digital assets belong to.

At the same time, the Principles do not prescribe a specific approach to implementation by jurisdiction. Instead, they leave it to each authority to decide how to implement them and incorporate them into national law and regulation.

⁵ For details, please see the final English version of the UNIDROIT Principles at

<https://www.unidroit.org/wp-content/uploads/2024/01/Principles-on-Digital-Assets-and-Private-Law-linked-1.pdf>.

⁶ More information on the model law may be obtained from the website of the United Nations Commission on International Trade Law at https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_transferable_records.

The Principles

The UNIDROIT Principles consist of 19 individual principles divided into seven sections (**Box**), with commentary and illustrations in each section provided by the authors to explain the purpose and intentions, as well as subjects of significance in relation to each principle. The Principles are written to be technologically and business-model neutral, jurisdictionally neutral (e.g., may be applied in both civil law and common law jurisdictions), as well as organizationally neutral.

The Principles cover only private law issues relating to digital assets and do not cover regulatory law in certain jurisdictions. At the same time, the commentary on the Principles contains some suggestions for possible regulatory responses.

The Principles only address particular situations where gaps may exist in current private law or traditional approaches in certain jurisdictions should be modified. Issues not directly covered by the Principles are left to “other law”—that is, the applicable private law of the relevant jurisdiction. However, many of these issues are identified explicitly in the Principles and its commentary, which guides possible modifications a jurisdiction may need to make to its existing law.

Hereafter, this brief will focus on some of the key aspects of the Principles of particular significance for the capital market and its constituents, including in the ASEAN+3 region.

Box: Structure of the UNIDROIT Principles

Section I: Scope and Definition

- Principle 1: Scope
- Principle 2: Definitions
- Principle 3: General principles
- Principle 4: Linked assets

Section II: Private International Law

- Principle 5: Applicable law

Section III: Control and Transfer

- Principle 6: Control
- Principle 7: Identification of a person in control of a digital asset
- Principle 8: Innocent acquisition
- Principle 9: Rights of a transferee

Section IV: Custody

- Principle 10: Custody
- Principle 11: Duties owed by a custodian to its client
- Principle 12: Innocent client
- Principle 13: Insolvency of a custodian and creditor claims

Section V: Secured Transaction

- Principle 14: Secured transactions (general)
- Principle 15: Control as a method of achieving third-party effectiveness
- Principle 16: Priority of security rights
- Principle 17: Enforcement of security rights

Section VI: Procedural Law including Enforcement

- Principle 18: Procedural law including enforcement

Section VII: Insolvency

- Principle 19: Effect of insolvency on proprietary rights in digital assets

Source: International Institute for the Unification of Private Law (UNIDROIT). UNIDROIT Principles on Digital Assets and Private Law. <https://www.unidroit.org/wp-content/uploads/2024/01/Principles-on-Digital-Assets-and-Private-Law-linked-1.pdf>.

A Need for the Principles

When cases are brought to court, a judgment is conducted according to the interpretation of the laws of each jurisdiction. In the case of digital assets, which go beyond conventional law and understanding, judges in each jurisdiction may have trouble deciding what principle to use as a basis for issuing a ruling. They may find it difficult to apply a suitable treatment of digital assets, which means that people in the digital asset business—investors in digital assets, companies issuing digital assets, and regulators in many economies—do not have the rules and principles needed to deal with and trade digital assets. This results in a lack of legal certainty and prospects for predictable outcomes.

In light of these issues, UNIDROIT formulated the minimum necessary principles centered on the current situation where, for example, the proprietary-rights-related rules for digital assets are not evident in response to the problematic situation in which the holder of the private key can control the digital asset even if they are not the legitimate owner of the asset. The Principles were conceived to make a minimal contribution to facilitate transactions in such digital assets.

Thus, the Principles are designed to guide legislators and regulators; those involved in adjudicating disputes concerning digital assets, such as judges and arbitrators; those involved in the transactions, such as practitioners, their advisors (including lawyers), and market participants; and others considering the legal implications of these transactions.

Jurisdictional parties are strongly encouraged to adopt legislation consistent with these Principles. In addition, even if legislation or legal amendment are not possible, or until that happens, the current law will be interpreted and dealt with—thus, the Principles will be helpful when interpreting it. This approach has several advantages: Once implemented, the predictability of transactions involving digital assets in the jurisdiction is increased. In addition, because these transactions often involve people from different jurisdictions, the more consistency there is across economies, the more predictable cross-border transactions are. The improved predictability will increase efficiency and reduce the cost of these transactions, both in terms of direct transaction costs and pricing.

Practical and Functional Approach to the Principles

The Principles take a practical and functional approach in that they are intended to facilitate the private law treatment of digital assets in all technological and legal systems. The Principles' internationality will enable different jurisdictions to take a common approach to legal issues arising from the holding, transferring, and using of digital assets across various use cases.

Hence, the Principles are written in a manner that is technology neutral and business-model neutral. In several instances, the commentary on these Principles uses examples that draw on distributed ledger technology, such as blockchain technology. However, this has been done only to clarify the application of the Principles and is not meant to favor assets that employ this type of technology or to modify or undermine the applicability of these Principles to digital assets that use other technologies. Thus, these Principles are intended to apply to all digital assets as defined in these Principles, whether or not the record of these digital assets is on a blockchain.

The Principles are jurisdiction neutral in that they are intended to facilitate the legal treatment of digital assets in all jurisdictions. When making international treaties and conventions into domestic law or when applying internationally established principles, each jurisdiction will consider what kind of legal structure or character to use, given the jurisdiction's traditions and consistency with existing laws and rules. However, the consequences and results shall be aligned. Hence, it can be said that these Principles have jurisdiction neutrality. In recent years, this approach has become more or less established.

The Principles are also organizationally neutral in that they could be implemented into a specific law on digital assets or could follow, with some clarification, from existing general principles of private law.

Application of the Principles to Existing Book-Entry Securities

Traditionally, special laws exist for dematerialized or book-entry securities in many jurisdictions, including in ASEAN+3 markets. The Principles apply to a special law, but existing special law takes precedence in areas with a special law. In fact, book-entry securities are settled and traded in the accounts of a central securities depository (CSD) and participating custodians or similar intermediaries, for which comprehensive service relationships—and the underlying regulations governing such relationships—already exist. Therefore, it may appear to be of no practical benefit to discuss whether dematerialized or book-entry securities and electronically recorded receivables, which are already subject to a special law, fall under this definition of digital assets.⁷

In relation to the dematerialization of securities, the UNIDROIT Principles state that dematerialized securities (e.g., book-entry transfer securities or those existing as an electronic record only) also fall under the definition of digital assets—if they are subject to exclusive control, as defined in the Principles. Yet, many jurisdictions have already established detailed rules for dematerialized securities. In such cases, the Principles themselves acknowledge those rules as preceding the Principles. Similarly, the Uniform Commercial Code in the United States explicitly excludes dematerialized securities from Title 12, which sets out general rules regarding controllable digital assets.⁸

According to Professor Kanda and other members of the Working Group on Digital Assets and Private Law, the question remains whether existing book-entry securities can be considered digital assets by default. Some parties believe that assets become digital assets only by virtue of applying cryptographic techniques and blockchain technology. Others are of the opinion that existing book-entry securities already fulfill the definition of digital assets presented in the Principles. Ultimately, the project team concluded that using crypto or blockchain technology should not be the determining condition for digital assets.

As a result, the definition of digital assets in the Principles remains technology neutral and, at the same time, opens opportunities for the consideration of new legislation in relation to securities as electronic records in jurisdictions that do not have such established frameworks.

Private International Law and Jurisdiction

Digital assets are similar to the practice of indirectly holding securities (as mentioned in the previous section), but there are differences. In private international law, the place of the relevant intermediary approach is called the Place of the Relevant Intermediary Approach, commonly referred to as “PRIMA,” in the case of indirectly held securities. Here, the law of the location of the relevant CSD is taken as the governing law. Digital assets may also be managed through accounts with brokers or other intermediaries and, if so, could be regarded as becoming similar to book-entry securities.

However, given the nature of many digital assets, the concept of location may not be applicable. The Principles are, hence, trying to find an approach that aligns with digital assets. It is recognized that the rules regarding conflicts of law are always incomplete. Therefore, the purpose of the Principles is to improve the clarity and legal certainty surrounding conflict-of-law issues as much as possible. Regarding private international law, given the intangible nature of digital assets and the need for certainty when determining the applicable law, the Principles may significantly impact the interested parties’ voluntary judgments.

Similarly, it is widely recognized that the usual connecting factors for choice-of-law rules of private international law (e.g., location of persons, offices, activities, or assets) may not play a role in the context of law applicable to proprietary rights and exclusive control issues related to digital assets (see below). Digital assets are intangible assets that do not have a physical location, so adopting such factors is inconsistent and wasteful.

⁷ Examples of special laws in this context are laws that establish a CSD and regulate its activities, including the settlement and safekeeping of book-entry securities, those that prescribe the shift from physical assets to book-entry assets for an asset class or the capital market as a whole, or those that stipulate the treatment of securities in electronic or digital form.

⁸ Uniform Law Commission and the American Law Institute. 2022. *Commentary 3.7: Uniform Commercial Code Amendments on the UNIDROIT Principles on Digital Assets and Private Law*. Chicago.

Instead, the Principles' approach incentivizes those who create new digital assets or govern existing systems of digital assets to specify (i.e., constitute as linked assets) applicable laws that already exist about the digital asset itself or related systems or platforms. This approach addresses questions about the unique nature of digital assets and proprietary rights and exclusive control issues regarding digital assets that may arise.

Key Aspects of the Principles

This brief reviews a number of key aspects of the Principles, particularly those that have a bearing on subjects and practices in the capital market, including the bond market.

The Principles establish that digital assets can be subject to proprietary rights. They also significantly affect party autonomy in determining the applicable or governing law for digital assets and provide other connecting factors, in particular circumstances, through a waterfall structure.⁹ Some of these legal concepts will be further explored in CSIF Brief No. 5 in its discussion on issues, challenges, and opportunities inherent in digital assets.

The Principles provide a detailed definition of the notion of control, which plays a critical role in some of the specific rules in the Principles. These include a rule on innocent acquisition when a digital asset is transferred and rules requiring control to be a method of third-party effectiveness for security rights involving digital assets and providing priority for a secured creditor who has

control over other secured creditors who do not have control.¹⁰

One of the features of this UNIDROIT project is that it presents the norms of legal intersection that seem to be important to the minimum extent regarding the most critical issue of "the person who has the private key can control it" mentioned above. Therefore, the Principles developed by this project do not go in depth about the characteristics of various digital assets.

The activity of custodians and sub-custodians of digital assets is also addressed in some detail. A custodian is a person who controls digital assets for their clients during their business. The Principles address the duties owed by the person or party acting in that capacity and provide that the assets controlled for clients in this capacity do not form part of the custodian's assets available for its creditors upon its insolvency, as is generally understood in the securities industry.

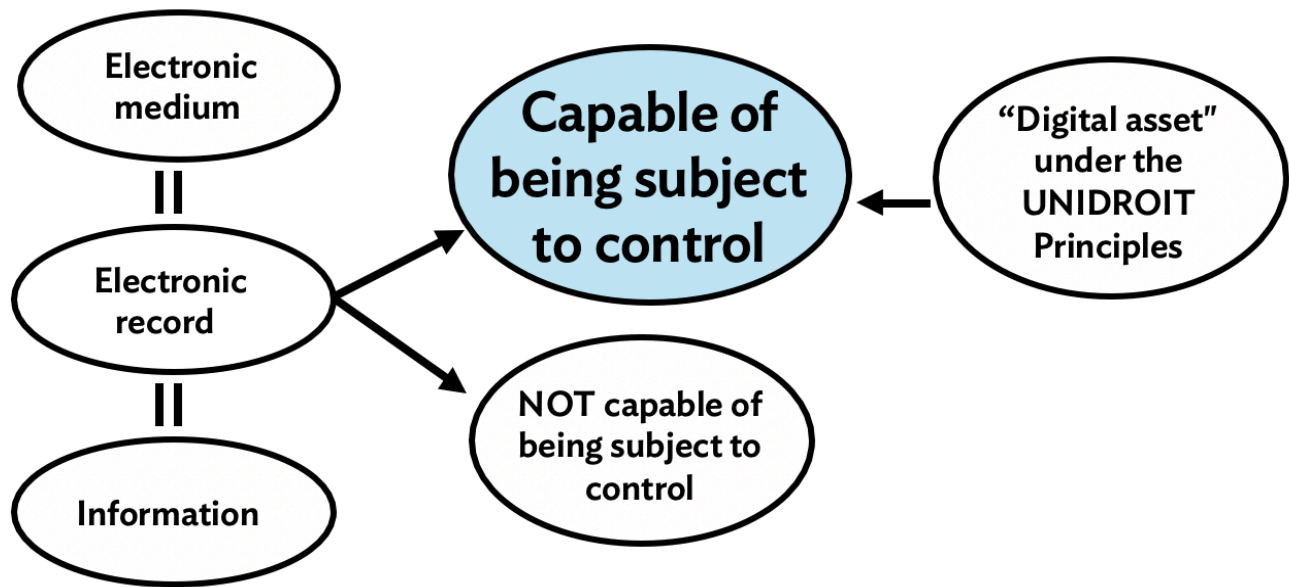
The Principles also provide that proprietary rights in digital assets are effective on insolvency and provide guidance on the impact of the insolvency of owners, secured creditors, or custodians. Some guidance is also given on how existing rules on enforcement might need to be modified, both in the context of security rights and more generally.

These key aspects of the Principles are further explained in the next few sections.

⁹ According to sources in the public domain (also used for the other definitions), "party autonomy" in private international law is a cornerstone in contractual relationships. It grants parties the freedom to choose the governing law in their international private law relationships, which is crucial to their ability to determine the law applicable to their contracts. "Connecting factors" in private international law refer to standards and elements for determining the governing law that applies to private legal relationships between different jurisdictions. Connecting factors generally include a variety of factors, such as nationality, habitual residence, and place of occurrence. In digital assets transactions, traditional connecting factors such as location of persons, offices, activities, or assets may not be applicable, as an issuer may not exist and the location of a transaction may not be geographically specified. The "waterfall structure" in private international law plays a pivotal role in determining the sequence of payments from a debtor's assets when there are multiple creditors.

¹⁰ "Innocent acquisition" in private law safeguards transaction security and fosters confidence in market transactions by protecting those who acquire assets in good faith. It occurs when an acquirer obtains something without knowing or being able to understand that the previous owner had no rights to it. If a transferor with no proprietary right wrongfully changes a digital asset's control, an innocent acquirer can acquire a proprietary right (Principle 8[4]). "Third-party effectiveness" in private law means a particular legal act may also affect unrelated third parties. In private international law, the principle of third-party impact may also be applied when determining which jurisdiction's law governs contracts and legal acts between parties in different jurisdictions. If the secured creditor controls the digital asset or the custodian maintains it for the secured creditor, a security right in a digital asset can be made effective against third parties by controlling the digital asset (Principle 15). A "security right" is created over a specific asset to guarantee the performance of a debt. It gives the secured party the right to seize and sell the asset to recover the debt if the debtor defaults. Digital assets can be the subject of security rights (Principle 14). A security right in a digital asset that is made effective against third parties by control in accordance with Principle 15 has priority over a security right in the digital asset that is made effective against third parties only by a method other than control (Principle 16).

Figure 1: The UNIDROIT Definition of Digital Assets



UNIDROIT = International Institute for the Unification of Private Law.

Source: Authors' illustration based on a presentation by Hideki Kanda at the 37th ASEAN+3 Bond Market Forum Meeting in Tokyo in July 2023.

Key Aspect: Definitions (Principle 2, Other Principles)

CSIF Brief No. 3: *An Introduction to Digital Assets* concluded that there are many definitions for digital assets and their categories, which are often influenced by the perspective, nature, or business focus of the definer. The various definitions also differ to the extent that specific features or technologies were included.¹¹

In contrast, the Principles are examining digital assets from a purely legal perspective, breaking down digital asset is an electronic record subject to control, and an electronic record is defined as information stored on an electronic medium capable of being retrieved (**Figure 1**). As previously mentioned, the definitions of these terms in the Principles remain neutral on the type of assets and on the technology by which such an electronic record is stored.¹²

Yet, some of the other technical terms defined in the Principles follow the conventional understanding of those terms as they are already used for these actions or functions in the capital market. Examples include “transfer” (of a digital asset, including the use of “transferor” and “transferee”); “issuer” (of a digital asset); “custodian”; “sub-custodian”; and “custody agreement.”

At the same time, not all relevant definitions are contained in Principle 2; instead, many of the definitions of terms are provided in the context of the principle in relation to which they play a role.

¹¹ See <https://www.adb.org/publications/introduction-digital-assets>.

¹² UNIDROIT. 2023. *Principles on Digital Assets and Private Law*.

<https://www.unidroit.org/wp-content/uploads/2024/01/Principles-on-Digital-Assets-and-Private-Law-linked-1.pdf>.

Table: Proprietary Rights and their Elements

Type of Right	Proprietary Interests	Rights with Proprietary Effects
Description	Real rights include ownership relationships	Real rights that have the effect of exclusive control or possession
Ownership	Ownership share is a real right	Ownership not required
	The right to control property, goods, or things represented by ownership directly or indirectly (in the case of indirect ownership, control is held by someone other than the owner)	The right to exclusive controllable effects, even if not involved in the ownership, regardless of whether it is legal, illegal, or fraudulent
	The right to control property, goods, or things attributed to a third party other than the owner (e.g., custodian)	

Source: Authors’ compilation based on the International Institute for the Unification of Private Law’s Principles on Digital Assets and Private Law.

Key Aspect: Proprietary Rights

The Principles describe the issue of proprietary rights regarding digital assets as a matter of law. The scope of the Principles covers only private law issues relating to digital assets, with a particular focus on proprietary rights, not to be confused with property rights. The discussion to what extent to write the Principles within the provisions of private international law—covering the decision on which jurisdiction’s laws apply, for example, in the case of a cross-border transaction—are ongoing within UNIDROIT.¹³

These Principles require digital assets to be the subject of proprietary rights, and digital assets are positioned as objects that can be the subject of proprietary rights. “Proprietary rights” in the Principles are used in a broad sense, in that they include both “proprietary interests” and “rights with proprietary effects.” “Proprietary rights” also include the meaning of exclusive rights.

This broad definition reflects the functional approach of the Principles, which intend to cater to use in the

broadest variety of jurisdictions possible. Whether rights related to digital assets are characterized as property rights or claims differs depending on each jurisdiction’s legal tradition. The Principles were formulated on the premise that they will not be subject to debate and will be left to each jurisdiction’s laws. Therefore, these Principles specifically address cases where these digital assets are subject to disposal and acquisition, and the interest in those assets is asserted against third parties. In other words, this project limits itself to the discipline of transfers and collateral transactions.

Proprietary rights are (i) proprietary interests: the right to control property, goods, or things represented by ownership directly or indirectly, and the right to control those attributed to a third party (such as a custodian) other than the owner; and (ii) rights with proprietary effects: the right to have exclusive controllable effects even if not involved in the ownership (**Table**). A theft of digital assets would be an example of the separation of control and proprietary rights.

¹³ Property rights are expressed in public law or regulatory law and specify what an individual can do with their property. Adapted from Study Smarter. Property Rights. <https://www.studysmarter.co.uk/explanations/microeconomics/market-efficiency/property-rights/> (accessed 30 June 2024).

Key Aspect: Concept of Attribution

The concept of attribution plays a major role in the context of digital assets, and the attribution relationship is essential, specifically in conjunction with the concept of control (see also next section).

The following is an example for illustration:

If person A has a right toward person B, the controlling right remains vested in person A, who has ownership. If the asset is transferred, collateralized, or deposited with a custodian (here, person C), the question is whether the control is transferred and belongs to person C anew.

These are proprietary interest issues and involve the attribution of control over the digital assets. In other words, the Principles define digital assets around the fact that if person A has "control," person B does not, and neither does anyone else.

A custodian is included in an attribution relationship because digital assets are often held and traded through digital asset service providers, just as is the case with conventional assets. In that case, proprietary interests become an issue. In particular, customer protection issues will immediately arise if a custodian goes bankrupt. Also, in the case of digital assets, if the related digital asset service provider, such as a digital exchange, goes bankrupt, the question is whether the rights belong to the customer or the bankruptcy foundation of the service provider, so this issue is a "proprietary issue" and, hence, is the subject of consideration in the Principles.

Key Aspect: Control (Principle 6)

As previously mentioned, the Principles establish that digital assets can be subject to proprietary rights. At the same time, they introduce the concept of "control" to develop the idea of whether they are controllable (see definition below); in fact, control is a key requirement in the tradability of a digital asset or an asset in general. Consequently, the concept of control (over the digital assets) is the key aspect of the Principles. With this, while broadly defining digital assets as "electronic records that can be subject to control" and ensuring that nothing is unincorporated in a subset, the concept of control is placed as a de facto functional concept. Hence, the Principles intend to use this new control concept to aid legal practitioners, including judges in courts and policymakers in addressing any potential issues.

Traditionally, the concept of control can be understood as possession. However, the concepts of control and possession are already used in existing laws and legal principles, and in general, they are all legal concepts. Although control assumes a role that is, as a purely factual matter, a functional equivalent to that of "possession," control, as used in the Principles, must not be understood to be identical to possession as a legal concept used in certain jurisdictions. One of the reasons for making control a de facto idea in the Principles is that if it is a legal concept, it may be considered the same in jurisdictions that already use it.

Consequently, the Principles apply only to a subset of digital assets frequently used in commerce. They are distinguished from other digital assets by being identified as digital assets capable of being subject to control. For the purpose of the Principles, control refers to a digital asset where a person can establish that they have the

- (i) exclusive ability to change the control of the digital asset to another person,
- (ii) exclusive ability to prevent others from obtaining substantially all of the benefits from the digital asset, and
- (iii) ability to obtain substantially all the benefits from the digital asset.

Control, in turn, is usually understood to mean "exclusive control," and, hence, the assumption may be that once a person has control of a certain digital asset means no one else has any control of it. Yet, a transfer of the digital asset to, for example, a custodian (see also Concept of Attribution above) would result in a third-party effect (effectiveness against third parties, see earlier definitions) and implies that the custodian would gain control while the transferor loses control. A particular case is the use of digital assets on a blockchain, with the use of a private key. If one person has the private key when using a blockchain, that person has control over the digital assets. Here, the private key effectively equals control, at the exclusion of all other concepts or traditional expectations; however, the possession of the private key does not confirm whether the holder is the rightful party exercising their proprietary rights. The Principles aim to posit control and proprietary rights as a legal matter, not a matter of technology. Such challenges inherent in the nature of digital assets are explored in detail in the upcoming CSIF Brief No. 5.

At the same time, some digital assets with economic value may not be controllable. Accordingly, these Principles may demonstrate potential problems with controllable digital assets in various jurisdictions, and situations may arise where there is a vacuum as to a legal solution. In effect, the Principles are intended to be helpful when a legal dispute arises and goes to court.

Key Aspect: Custody (Principles 10-13)

The significance of the custody function in the capital market is reflected in UNIDROIT dedicating an entire section covering four separate principles to the concept of custody itself, the duties a custodian has to its clients, the notion of an innocent client, as well as the custody agreement underlying the service provision.

A custodian is simply defined in the Principles as “a person who provides services to a client pursuant to a custody agreement [...]” with further definitions given for the custody agreement. These definitions are broadly in line with those that would have been embedded in conventional custody agreements or related legal documents for some time.

However, much of the relevance of custody and its sectional topics relates to the principle of control discussed earlier. According to the Principles’ authors, this control consists of a number of factual abilities that a person (or institution, such as a custodian) must have to have control of the digital asset, and a custodian is understood to exercise its function in the case of digital assets by having control over them. The authors also stress the relevance of the governing law that is specified in a custody agreement in relation to private international law.¹⁴

The Principles further affirm some of the basic tenets of the role of a custodian in the capital market at large: A custodian may obtain control of a digital asset for a client, but will not acquire ownership of that digital asset. Assets held by the custodian will need to be kept separate from the

intermediary’s assets and are not part of such assets in the event of insolvency or bankruptcy. A custodian needs to safeguard client assets and may only act on client instructions.

The Principles also state that the relationship—and relevant duties and implications—between a custodian and a sub-custodian are comparable to those between a client and a custodian. At the same time, the role of custodian here is understood to be limited to carrying out said custody duties, even if the same person or institution also carries out other activities that may or may not involve a client’s digital assets (e.g., trading or providing an exchange platform).

According to the commentary for Principle 10 (Custody), custody is an example of a situation where one person (the custodian) may have control of a digital asset, while another person (the client) may have a proprietary right in that asset. A key issue, in contrast to conventional assets held by a custodian, is that a custodian holding digital assets for clients will also need to obtain—at least temporarily—the electronic or cryptographic key (meant to represent ownership) for those digital assets to be able to move (settle or transfer) them upon instructions from the clients. Yet, the commentary also points out that the role of a custodian is, in effect, acknowledged as “maintaining” the digital assets for a client, which may include receiving benefits or carrying out actions in relation to these digital assets, considered a broader concept than the definition of control found in Principle 6 (Control).¹⁵

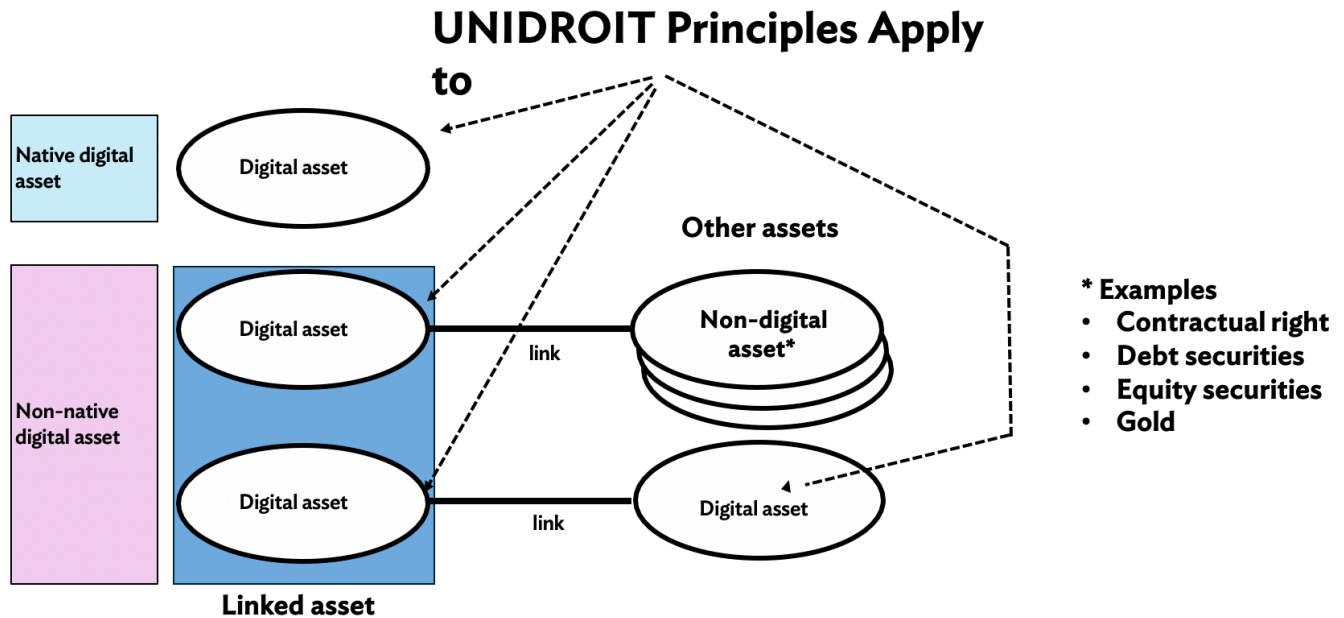
The commentary for Principle 11 (Duties owed by a custodian to its client) also raises the subject of the treatment of digital assets “of the same description,” a term chosen to indicate that—depending on market practice and other factors—such digital assets could be considered fungible and, thereby, treated as an undivided pool, which would allow the safekeeping of such digital assets in omnibus accounts.¹⁶

¹⁴ UNIDROIT. 2023. *UNIDROIT Principles on Digital Assets and Private Law—Introduction: Core Concepts and Rules*. <https://www.unidroit.org/wp-content/uploads/2024/01/Principles-on-Digital-Assets-and-Private-Law-linked-1.pdf>.

¹⁵ UNIDROIT. 2023. *UNIDROIT Principles on Digital Assets and Private Law—Principle 10: Commentary 10.1, 10.4*. <https://www.unidroit.org/wp-content/uploads/2024/01/Principles-on-Digital-Assets-and-Private-Law-linked-1.pdf>.

¹⁶ UNIDROIT. 2023. *UNIDROIT Principles on Digital Assets and Private Law—Principle 11: Commentary 11.6 and 11.7*. <https://www.unidroit.org/wp-content/uploads/2024/01/Principles-on-Digital-Assets-and-Private-Law-linked-1.pdf>.

Figure 2: Application of the UNIDROIT Definition of Linked Assets



UNIDROIT = International Institute for the Unification of Private Law.

Note: A native digital asset is stand-alone and created without an issuer; a non-native digital asset has an issuer.

Source: Authors' illustration based on a presentation by Hideki Kanda at the 37th ASEAN+3 Bond Market Forum Meeting in Tokyo in July 2023.

Key Aspect: Concept of Linked Assets (Principle 4)

Principle 4 (Linked assets) states that “a digital asset may be linked to another asset which could also be a digital asset.”

Principles law takes a neutral stance as to whether this link is sufficiently established and what, if any, the legal effect of the link may be. These matters are left to the other laws of the jurisdiction, including its regulatory law, to determine. The link operation may depend on other laws already in force in each jurisdiction or on new rules specially developed for linked assets. Consequently, the link between the digital asset and the different assets may operate in various ways depending on the other applicable laws. One key consideration is that the transfer of a digital asset may not automatically affect a transfer of the linked or underlying asset.

The Principles also apply to a digital asset linked to another asset, whether the other asset is tangible or intangible. Another law applies to determine the

existence of, requirements for, and legal effect of any link between the digital asset and the other asset, and existing laws will also apply to the underlying asset to which the digital asset may be linked. The Principles do not cover this legal validity in detail. Consequently, the link's validity and the legal implications for the assets to be linked are left to each jurisdiction's laws. The Principles do, however, offer some of the typically valid considerations for the determination of linked assets in its commentary (**Figure 2**).

Linked assets in the case of conventional securities include depository receipts, warrants, or options. Their nature links them to underlying or related securities issued either prior or at the same time. Linked assets in relation to digital assets follow the same concept: A digital asset may have a link to an underlying asset, conventional or digital—be it securities, precious metals, or rights to another asset or determination of value.

Whether or not the link has been proven to exist is largely a matter of fact. Its existence depends on all the circumstances of the case and the intentions of the party that created the digital asset. Other laws of a jurisdiction may also be associated with links. Other laws (including regulatory laws) may define minimum legal standards for recognizing the existence of a link. Links not meeting these criteria are ineffective when creating the digital asset, regardless of the party's intentions. The rules of other laws already in place may apply to transactions with a party's digital assets and determine the legal effect on any linked assets.

The Way Forward

With the issuance of these Principles, UNIDROIT is aiming to provide legal and market practitioner stakeholders effective guidance on the definition and treatment of, and considerations for, business transactions involving digital assets. Yet, UNIDROIT realizes that not all legal questions may have been addressed in relation to digital assets and additional work may need to be done to apply or even expand these Principles. Some previous proposals, such as the inclusion of economic value as a guiding measure for digital assets, have not been adopted by UNIDROIT.

At the time of compilation of this brief, UNIDROIT was in the process of convening an expert group to evaluate the initial success of the Principles and promote them in the coming years. The expert group may also seek to define future work items, which could include clarifications and application of the linked assets concept, and may also reexamine the applicability of the Principles to conventional electronic securities (e.g., those that have previously been immobilized or dematerialized under separate legislation). Yet another topic could be the synchronization regarding the examination of the rules of law applicable to digital assets with the Hague Conference on Private International Law, a sister organization to UNIDROIT. In fact, a new project at the Hague Conference on Private International Law on digital tokens held its first working group meeting in June 2024.¹⁷

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¹⁷ For more information, see the Hague Conference on Private International Law website at <https://www.hcch.net/en/news-archive/details/?varevent=982>.