

Crypto Assets as Property in Indonesian Law: Substantive Qualification and a Partial Lacuna Legis in Their Proprietary Consequences

Adalin Ali¹⁾, Appe Hutaeruk²⁾ & Hotman Sinambela³⁾

¹⁾Faculty of Law, Universitas Mpu Tantular, Jakarta, Indonesia, E-mail: adalins1hk@gmail.com

²⁾Faculty of Law, Universitas Mpu Tantular, Jakarta, Indonesia, E-mail: appehturuk@gmail.com

³⁾Faculty of Law, Universitas Mpu Tantular, Jakarta, Indonesia, E-mail: hotmanbertaok@gmail.com

Abstract. *The number of crypto asset users in Indonesia reached 21.70 million by April 2026, yet its status as property (benda) under the Indonesian Civil Code (KUH Perdata) remains undefined. This normative legal study employs statutory and conceptual approaches to analyze the classification of crypto assets as objects of property rights. The findings indicate that crypto assets substantially meet the criteria for intangible movable property under Articles 499 and 503 of the Civil Code, as they possess economic value, are identifiable, and are technically controllable via private keys. However, possession of a private key serves merely as an indicator of factual control rather than automatic proof of ownership or a basis for droit de suite; legal ownership must still be established through transaction histories, agreements, and custodial arrangements. This substantive classification has not yet resulted in uniform property-law consequences. The numerus clausus principle does not preclude classification as property but necessitates clarification regarding the associated legal consequences. Furthermore, the principle of publicity remains unsatisfied, as the link between wallet addresses and holder identities is inaccessible to third parties. This situation creates a partial lacuna legis regarding proof of ownership, transfer, inheritance, security interests, seizure, and execution, placing crypto assets in a zwevende rechtspositie (suspended legal position) between substantive classification and formal regulation. Consequently, legislation is required to clarify the property-law implications of crypto assets and to establish publicity mechanisms compatible with their cryptographic nature.*

Keywords: Assets; Civil; Intangible; Legal; Property.

1. Introduction

Financial technology continues to evolve, and one of the most prominent innovations is crypto assets. Since Bitcoin was introduced via Satoshi Nakamoto's whitepaper in 2008, crypto assets have been traded globally and have captured the attention of millions. In Indonesia, adoption has grown rapidly. According to official data from the OJK, the number of crypto asset consumer accounts reached 21.70 million in April 2026, up from 21.37 million in March 2026 and 21.07 million in February 2026 (RDKB & OJK, 2026). Throughout 2025, the OJK recorded crypto asset transaction values totaling Rp482.23 trillion (Financial Services Authority, Press Release SP 67/DKPU/OJK/IV/2026). This figure indicates that crypto assets have evolved into a significant financial phenomenon, making the clarification of their legal status under civil law an urgent necessity.

A fundamental issue arises because existing regulations focus on trading and oversight aspects rather than the civil law status of crypto assets. Bappebti Regulation Number 8 of 2021 defines crypto assets as "intangible commodities in digital form (Commodity Futures Trading Regulatory Agency Regulation Number 8 of 2021 concerning Guidelines for the Conduct of Physical Market Trading of Crypto Assets on Futures Exchanges, Article 1, point 7.)." Government Regulation Number 49 of 2024 and POJK Number 27 of 2024 define it as a "digital representation of value" that can be stored and transferred via blockchain technology (Government Regulation Number 49 of 2024 concerning the Transfer of Regulatory and Supervisory Duties over Digital Financial Assets including Crypto Assets and Financial Derivatives, Article 1, point 2; compare Financial Services Authority Regulation Number 27 of 2024 concerning the Conduct of Digital Financial Asset Trading including Crypto Assets Article 1, point 6, which formulates a similar definition) Consequently, the authority to regulate and supervise crypto assets shifted from the Commodity Futures Trading Regulatory Agency (Bappebti) to the Financial Services Authority (OJK) on January 10, 2025, as stipulated in Article 3 of Government Regulation Number 49 of 2024. Thus, OJK Regulation (POJK) Number 27 of 2024 serves as the primary regulatory framework, while Bappebti Regulation Number 8 of 2021 remains a reference for the pre-transition period. All these regulations classify crypto assets as commodities or objects of trade. None explicitly state that crypto assets constitute "property" (*benda*) within the meaning of Book II of the Indonesian Civil Code. Furthermore, crypto assets have not been legally defined as objects of property rights. Recent amendments via POJK Number 23 of 2025 expanded the scope of Digital Financial Assets including derivatives renamed the "List of Crypto Assets" to the "List of Digital Financial Assets," and updated trading and custody mechanisms. However, these changes remain focused on trading and supervisory aspects; they do not establish a comprehensive property law regime nor alter the civil law status of crypto assets.

This situation has tangible implications for millions of crypto asset holders. Article 499 of the Indonesian Civil Code defines "property" (*benda*) as any object or right that can be subject to ownership rights (Civil Code [*Burgerlijk Wetboek*], translated by R. Subekti and R. Tjitrosudibio, Article 499). If crypto assets do not fall within the legal definition of "property" (or "goods"), their owners lose the legal basis to assert their rights when the assets are stolen, lost through fraud, or subject to a dispute. Under the doctrine of property law, a property right is an absolute right over an asset that can be enforced against anyone. Such protection known in legal theory as *erga omnes* protection exists only if crypto assets are recognized as property. In the absence of such recognition, crypto asset holders lack adequate legal protection as holders of property rights (Frieda Husni Hasbullah, 2022).

This article focuses on utilizing Book II of the Indonesian Civil Code and the principles of property law as analytical tools. The doctrine of property law principles was selected as the analytical framework because legal principles constitute the fundamental values underpinning the formation, application, and interpretation of legal norms while simultaneously reflecting the objectives those norms aim to achieve (*ratio legis*). Consequently, if crypto assets satisfy these principles, there are compelling grounds to recognize them as objects of property rights (Djoni Sumardi Gozali & Noor Hadidah, 2022).

2. Research Methods

The research method employed is normative legal research (doctrinal legal research), which focuses on legal norms as the primary object of study. This research utilizes two approaches: the statute approach examining the Indonesian Civil Code and related regulations and the conceptual approach regarding the doctrine of property law. Primary legal materials consist of the Indonesian Civil Code, Law Number 4 of 1996 concerning Security Rights (*Hak Tanggungan*), Law Number 42 of 1999 concerning Fiduciary Guarantees, Law Number 4 of 2023 concerning the Development and Strengthening of the Financial Sector, Bappebti Regulation Number 8 of 2021, Government Regulation Number 49 of 2024, OJK Regulation Number 27 of 2024, and OJK Regulation Number 23 of 2025. Secondary legal materials comprise books, journal articles, and other literature on property law. All legal materials are analyzed using a descriptive-analytical method incorporating limited prescriptive recommendations with the principles of property law serving as the analytical framework.

3. Result and Discussion

3.1. Definition of Things and Legal Objects under the Indonesian Civil Code

The analysis of crypto assets as legal objects proceeds through five hierarchical steps: interpreting objects under the Civil Code, outlining technical control via private keys, testing against property principles, synthesizing substantive fulfillments versus formal hindrances, and deriving civil consequences. Article 499, interpreted by Subekti, recognizes both tangible goods and intangible rights, a category reinforced by Articles 503 and 504 that cover intangibles like shares and receivables, while Mariam Darus Badruzaman's criteria require crypto to satisfy human control and economic value—yet the decisive criterion for proprietary status is not merely economic worth but transferability as a proprietary right, distinct from mere contractual objects. Functionally, crypto transfers mirror movable property under Article 511, and regulations acknowledge its digital value and private key custody; however, the formal consequences (transfer, succession, collateral, execution) remain incomplete, necessitating explicit legislation to resolve this partial legal lacuna and finalize its proprietary regime.

3.2. Characteristics of Crypto Assets and Control via Private Key

Crypto assets operate on distributed ledgers where technical control via private keys enables transaction authorization, yet such control is non-exclusive and only indicates factual possession, not conclusive legal ownership, as private keys can be copied, used in multisignature schemes, or held by custodians. Article 1977 KUH Perdata's presumption of ownership over movable property cannot automatically apply to crypto because control is intangible, non-exclusive, and fails to link the asset to the holder's legal identity; theft of a private key does not equate to legal transfer, as an unauthorized on-chain movement does not cure the transferee's defective title, and recovery depends on proving acquisition title, tracing transactions, and identifying the possessing party through external evidence such as KYC data, custodian records, or digital forensics. The primary hurdle is legal publicity—blockchain transparency is pseudonymous and fundamentally differs from legal publicity, which requires a verifiable link between the asset and the legal owner for third-party protection. While sectoral regulations address trading, security, and consumer protection, they do not establish a comprehensive proprietary regime or resolve ownership proof in self-custody, and technical divisibility does not automatically confer legal divisibility (*deelbaar*), meaning partial transfers, co-ownership, and collateralization remain legally uncertain, underscoring the need for explicit legislation to achieve full proprietary consequences.

3.3. Testing the Principles of Object Law

While private key control provides factual and technical control indicative of *bezit* and economic value, it does not automatically establish *eigendom*, absolute rights (*erga omnes*), or *droit de suite*, as keys can be copied, misappropriated, or held by custodians, making asset recovery depend on proving title and identity through external evidence, yet legal publicity remains inadequate because blockchain only offers pseudonymous technical tracing, not a verifiable link to the holder's legal identity distinguishing on-chain transparency from formal proprietary publicity; the *numerus clausus* principle does not preclude qualification since it limits rights, not objects, allowing crypto to be substantively classified as intangible movable property under Article 499, and technical specificity is relatively fulfilled via wallet addresses, contract details, and transaction hashes, but legal-documentary specificity and publicity against third parties remain absent, especially in self-custody, while sectoral regulations (OJK) focus on trading and custody rather than civil proprietary consequences; although economic value and controllability support substantive qualification comparable only in limited terms to intellectual property as recognized intangibles they cannot generate automatic property consequences, so crypto assets occupy a *zwevende rechtspositie* with a partial *lacuna legis* regarding ownership proof, inheritance, collateral, seizure, and execution, ultimately requiring explicit legislation to affirm proprietary consequences and establish a controlled, functional publicity mechanism that links technical identifiers to legal identities without exposing private keys or compromising personal data.

3.4. Synthesis of Crypto Asset Testing against the Principles of Object Law

The substantive qualification of crypto assets as intangible movable property under Article 499 jo. 503 KUH Perdata finds a strong doctrinal basis given their economic value, technical identifiability, and controllability through private keys or custodian records yet this qualification does not automatically produce full proprietary consequences, because technical control merely indicates factual *bezit*, not conclusive *eigendom*, while absolute rights (*erga omnes*) and *droit de suite* remain inoperative without proven acquisition title, traced transactions, and identifiable parties subject to legal recovery mechanisms. The *numerus clausus* principle poses no obstacle, as it limits the types of rights, not objects, allowing existing ownership (*eigendom*) to attach, but judicial interpretation in concrete cases cannot replace uniform legislation needed to govern ownership proof, transfer, inheritance, fiduciary security, seizure, and execution uniformly. This condition constitutes a partial *lacuna legis* not a total legal void, since sectoral regulations already address trading and custody, yet they leave unresolved the proprietary linkage between technical identifiers and legal identities, particularly in self-custody where no automatic registry links the wallet to the holder's legal personhood. Consequently, crypto assets occupy a *zwevende rechtspositie*

(unsettled legal position), where substantive recognition coexists with incomplete procedural and proprietary enforcement, a gap most apparent in third-party protection, asset recovery from unauthorized possessors, and execution against self-custodied holdings. While comparisons with intellectual property demonstrate Indonesia's capacity to regulate intangible objects via statute, crypto assets are not IP rights, and their pseudonymous blockchain transparency offering technical traceability is fundamentally distinct from formal legal publicity, which requires verifiable external mechanisms linking the object, its rights, and the legal subject. Nevertheless, this gap does not leave self-custody holders unprotected, as contractual claims, tort, consumer protection, and criminal law remain available case-by-case; however, the absence of a uniform proprietary framework against third parties ultimately necessitates explicit legislation to affirm proprietary consequences and establish a controlled publicity mechanism that protects personal data and private keys without exposing them to the public.

Diagram Assessment of crypto assets against the principles of object law (processed by the author, 2026).

Aspect	Specific Implications	Current Legal Status
Civil Implications	Sale-Purchase, Inheritance, Fiduciary Security (<i>Fidusia</i>), Pledge (<i>Gadai</i>), Seizure-Execution.	Currently functional only via contractual/custodial agreements; lacking proprietary certainty in formal civil procedures (e.g., court-ordered execution or notarial inheritance distribution).
Conclusion	Substantive Qualification: Crypto assets can substantively be qualified as intangible movable property under Article 499 jo. 503 of the Indonesian Civil Code.	However, their proprietary consequences cannot operate fully and uniformly due to a partial <i>lacuna legis</i> (legal vacuum) regarding evidentiary standards, publicity, transfer mechanisms, collateral, seizure, recovery, and execution. This places crypto assets in a <i>zwevende rechtspositie</i> (pending/unsettled legal position).
Recommendation	Legislative Action Required: The government must enact a law (or revise Book II of the Civil Code) to: 1. Affirm the proprietary consequences of crypto assets. 2. Establish a formal proof-of-ownership mechanism. 3. Create a balanced publicity mechanism that does not expose private keys or seed phrases, while ensuring legal certainty and protecting personal data.	Essential to transition from substantive qualification to a complete, operational proprietary regime.

Table Results of the Assessment of Crypto Assets against Principles of Property Law

Principle / Element	Status	Description
Legal Object: Controllable + Economic Value	Substantively fulfilled	Crypto assets have economic value and can be placed under technical control through authorization credentials or custodian records.
Intangible Movable Property (Art. 499 jo. 503)	Fulfilled	Crypto assets can be analyzed as intangible movable property under

				Art. 499 jo. 503 of the Indonesian Civil Code.
Absolute Power (over the object)	Nature / Direct	Not yet fully operative		Its enforceability depends on proof of ownership, identification of the parties, and recovery mechanisms against third parties.
Bezit (Factual Possession)		Limited		Possession of a private key or other credentials is an indicator of factual control, not automatic proof of legal ownership.
Droit de Suite (Right of Pursuit)		Not yet uniform		Blockchain tracing can support the identification of asset history, but recovery against third parties still requires a separate legal basis and mechanism.
Numerus Clausus (Closed System)		Does not preclude / Not an obstacle		This principle limits the types of proprietary rights, not the types of objects. Legislation is required to affirm proprietary consequences, not solely to create a new object.
Technical Specificity		Relatively fulfilled		The object can be specified through asset type, network, contract address, wallet address, number of units, and transaction history.
Publicity & Specificity	Legal-Documentary	Inadequate		There is no uniform mechanism linking the asset's technical identity with the legal identity of the owner, title basis, security interest status, seizure, or dispute

Source: Summarized by the author based on an analysis of Article 499 in conjunction with Article 503 of the Indonesian Civil Code and the principles of property law.

In trading conducted through licensed operators, certain information-related issues can be mitigated through consumer registration, identity verification, transaction records, and verification of the recipient party or wallet upon asset withdrawal. However, these mechanisms constitute administrative traceability within the trading and compliance framework rather than a register of proprietary ownership enforceable against third parties. The recording of assets in the Digital Financial Asset Registry determines which assets may be traded via licensed operators; it does not determine whether an asset qualifies as "property" under Article 499 of the Indonesian Civil Code. Consumer assets held by a custodian must not be commingled with the operator's own assets. Although sectoral regulations mandate asset segregation and record-keeping, the civil law implications in the event of bankruptcy or disputes require further clarification—specifically regarding asset segregation, the substantiation of consumer rights, claim priority, and the mechanisms for returning assets to consumers.

Table Crypto Asset Custody Models and Key Legal Issues

Model	Technical Control	Main Legal Issues
Self-Custody	The user controls the private key, seed phrase, or multisignature scheme.	Proof of acquisition title, linkage between the wallet address and the

		holder's legal identity, asset recovery, inheritance access management, as well as seizure and execution.
Custody Provider (Custodian/ Organizer/ Trader)	or The storage manager, trader, or custodian manages the asset storage and transfer system.	Segregation of consumer assets, evidence of deposit and delivery, accuracy of ownership records, audit, data access, liability for asset loss, and protection in the event of the organizer's bankruptcy.

Source: Adapted from the author's analysis, 2026.

3.5. Civil Law Implications

The partial legal lacuna generates concrete civil uncertainties across sale, inheritance, fiduciary security, pledge, seizure, and execution, since substantive qualification under Article 499 does not by itself produce fully operative proprietary consequences. In sale and transfer, on-chain transactions do not automatically constitute levering under the Civil Code, leaving the precise moment of title transfer unsettled whether upon agreement, payment, blockchain finality, or effective control especially as private keys are not transferred to the buyer. In inheritance, while crypto assets can form part of the estate, heirs in self-custody face evidentiary and technical barriers accessing seed phrases or private keys, whereas custodial models require formal heir verification, with price volatility further complicating valuation and distribution timing. For fiduciary security and pledge, technical specificity via wallet addresses, chain data, and contract details is available, but legal standards are absent for describing objects in notarial deeds, registering them in the fiducia registry, or updating records post-migration or token-swap; moreover, pledge demands possession delivery to the creditor, which for crypto may require multisignature or independent custodian arrangements, as surrendering a sole private key risks unauthorized transfers, while seizure and execution lack standardized procedures, particularly in self-custody where accessing, freezing, and liquidating assets depends on securing credentials and tracing movements without clear judicial guidelines—although custodians offer relatively structured blocking. Contractual claims, tort, consumer protection, and criminal remedies may assist case-by-case, but they cannot replace a uniform proprietary framework; explicit legislation is essential to govern valuation, collateralization, possession, publicity, seizure, and execution, ensuring third-party enforceability and creditor priority consistent with crypto's cryptographic nature.

4. Conclusion

This study concludes that, in substance, crypto assets constitute intangible movable property under Article 499 in conjunction with Article 503 of the Indonesian Civil Code, as they possess economic value and are capable of being technically controlled. However, possession of a private key serves merely as evidence of factual control rather than absolute ownership or *droit de suite*; legal ownership remains contingent upon supporting evidence. The *numerus clausus* principle poses no obstacle, as it restricts rights rather than objects. The primary challenge lies in the issue of publicity, given that blockchain technology does not link wallet addresses to the owners' identities. This situation creates a partial *lacuna legis*, preventing the full application of property-law consequences regarding crypto assets specifically concerning transfer, inheritance, security interests, and enforcement thereby placing them in a *zwevende rechtspositie* (a state of legal limbo). Consequently, there is a need for statutory-level regulation or an amendment to the Civil Code that explicitly defines property-law consequences, evidentiary mechanisms, and controlled publicity measures, all while ensuring that private keys remain undisclosed to maintain security and personal data protection.

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