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Legal Protection of Crypto Assets in Indonesia: A Comparative Analysis of the United States, Japan, and Singapore and Implications for Private Law

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Abstrak

Perkembangan teknologi blockchain telah mendorong lahirnya berbagai bentuk aset digital, termasuk aset kripto dan aset tertokenisasi yang merepresentasikan hak serta kepentingan ekonomi tertentu, sehingga menimbulkan tantangan baru bagi sistem hukum perdata Indonesia. Penelitian ini bertujuan menganalisis kesesuaian konstruksi hukum perdata Indonesia dalam mengakomodasi perkembangan aset kripto melalui perbandingan pendekatan regulasi di beberapa negara. Penelitian menggunakan metode yuridis normatif dengan pendekatan perundang-undangan dan pendekatan konseptual, yang didukung oleh analisis peraturan perundang-undangan, doktrin, dan literatur hukum. Hasil penelitian menunjukkan bahwa Amerika Serikat, Jepang, dan Singapura menerapkan pengaturan berbasis fungsi dan karakteristik ekonomi aset kripto, sedangkan Indonesia masih mengatur aset kripto secara parsial melalui Peraturan Bappebti dan Undang-Undang Nomor 4 Tahun 2023 tentang Pengembangan dan Penguatan Sektor Keuangan yang berfokus pada aspek pengawasan sektor keuangan. Meskipun Pasal 499 Kitab Undang-Undang Hukum Perdata memungkinkan aset tertokenisasi dikualifikasikan sebagai benda tidak berwujud, belum terdapat kepastian hukum mengenai status keperdataan, mekanisme peralihan hak, hukum waris, dan perlindungan hak kebendaan. Oleh karena itu, diperlukan pengaturan setingkat undang-undang yang mengintegrasikan hukum perdata, regulasi sektor keuangan, dan rezim hukum atas underlying asset guna mewujudkan kepastian hukum sekaligus mendukung inovasi aset digital di Indonesia.

Kata kunci: Aset Kripto; Aset Tertokenisasi; Hukum Perdata.

Abstract

Advances in blockchain technology have given rise to various forms of digital assets, including crypto assets and tokenized assets representing particular rights and economic interests, thereby creating new challenges for Indonesia's civil-law system. This study examines whether Indonesian civil-law constructs can accommodate crypto-asset developments by comparing regulatory approaches in several jurisdictions. It employs normative legal research using statutory and conceptual approaches, supported by an analysis of legislation, doctrine, and legal literature. The findings show that the United States, Japan, and Singapore apply regulatory approaches based on the functions and economic characteristics of crypto assets, whereas Indonesia continues to regulate them only partially through Bappebti regulations and Law Number 4 of 2023 on Financial Sector Development and Strengthening, which focus on financial-sector supervision. Although Article 499 of the

Indonesian Civil Code permits tokenized assets to be classified as intangible property, legal certainty is still lacking regarding their civil-law status, mechanisms for transferring rights, inheritance, and the protection of property rights. Accordingly, legislation at the level of an Act is needed to integrate civil law, financial-sector regulation, and the legal regimes governing underlying assets, thereby ensuring legal certainty while supporting digital-asset innovation in Indonesia.

Keywords: *Crypto Assets; Tokenized Assets; Civil Law.*

INTRODUCTION

Technological developments in investment and payment systems have given rise to crypto assets, of which cryptocurrency is the most commonly used form. Cryptocurrency is a digital currency operating through a directly connected peer-to-peer computer network and supported by cryptographic technology.[1] Blockchain technology enables crypto assets to be created, recorded, transferred, and stored in a decentralized manner without traditional financial intermediaries or a central administrator. Crypto assets have also generated new intermediaries and service providers, including crypto-asset exchanges and wallet providers. Blockchain technology was first introduced by the person or group using the pseudonym Satoshi Nakamoto to create the Bitcoin cryptocurrency in 2008. Bitcoin's steep rise in value over a short period attracted substantial interest in investing in and developing this technology, accelerating the growth of crypto assets.

Over time, cryptocurrency has experienced significant growth as a digital asset traded in a manner similar to shares. However, the increase in public purchases and circulation of crypto assets has been accompanied by a growing risk of crime. Crypto assets are frequently used in various criminal schemes, including investment fraud. Such activity is generally associated with cybercrime, including hacking of trading systems and the use of illegal software.[2]

International crypto-asset governance must distinguish different legal instruments. Treaties create international obligations when validly concluded and applicable; FATF Recommendations and FSB frameworks are forms of international soft law or standard setting; IOSCO and other technical standards guide supervisory convergence; and G20/G7 or similar forums coordinate policy but do not themselves create domestic private-law rights. This article therefore uses international materials as interpretive and policy benchmarks, not as if they were one unified source of binding global crypto law.[3]

[1] Rusno Haji, "Urgensi Penerapan Kerangka Regulasi Aset Kripto yang Komprehensif, Adaptif, dan Akomodatif," *Trade Policy Journal* 1, no. 1 (December 2022): 33-42.
[2] Dona Budi Kharisma and Ishaniar Uwais, "Studi Komparasi Regulasi Perdagangan Aset Kripto di Indonesia, Amerika Serikat dan Jepang," *Perspektif: Kajian Masalah Hukum dan Pembangunan* 28, no. 3 (September 2023): 141-153, https://doi.org/10.30742/perspektif.v28i3.881.
[3] Razaq Mustika Djati and Tjokorda Istri Diah Widyantari Pradnya Dewi, "Regulasi Metode Pembayaran dengan Mata Uang Kripto (Cryptocurrency) dalam Transaksi Bisnis Internasional," *Ethics and Law Journal: Business and Notary* 2, no. 2 (2024): 91-106, https://doi.org/10.61292/eljbn.170.

Indonesia initially placed crypto assets under the supervision of the Commodity Futures Trading Regulatory Agency (Bappebti), treating them as commodities tradable under Ministry of Trade policy. Bank Indonesia and the Financial Services Authority (OJK), by contrast, prohibit the use of crypto assets as a means of payment and have warned of the risks associated with their use as investment instruments. Supervision is considered essential because crypto assets could disrupt national financial-system stability. These divergent policies create normative uncertainty, invite regulatory arbitrage, and generate uncertainty for business and investment. The limited scope of existing rules also leaves important aspects of the crypto ecosystem unaddressed.[4] Against this background, this study examines crypto-asset developments and compares regulatory approaches to international and domestic business transactions in order to identify a clearer, more consistent, and technologically adaptive regulatory model for Indonesia.

RESEARCH METHOD

This study uses normative comparative legal research. The Indonesian statutory and conceptual analysis focuses on private-law questions—classification of the object, ownership/control, transfer, publicity/opposability, custody, security interests, insolvency, inheritance, and the relationship between a token and any underlying asset. The functional comparison examines the United States, Japan, and Singapore through a common matrix: asset classification, payment/securities treatment, custody and intermediary regulation, transfer/control concepts, insolvency or client-asset protection, and supervisory allocation. Foreign law is supported primarily by current legislation and official regulator materials, while academic literature is used for interpretation. The regulatory cut-off date is 31 August 2026 because the field changes rapidly.

Terminology is used functionally. 'Crypto asset' is the umbrella term for digitally represented value or rights relying on distributed-ledger or similar technology. 'Cryptocurrency' or a native crypto asset refers to a token whose principal existence is within the network rather than a claim to an external asset. 'Payment token' describes a token used or intended as a means of exchange where a jurisdiction adopts that category. 'Security/asset token' denotes a token whose rights or economic characteristics bring it within securities or financial-instrument law. 'Tokenised real-world asset' refers to a digital token representing or evidencing rights in an underlying off-chain asset; the token and underlying right must be analysed separately.

[4] Haji, "Urgensi Penerapan Kerangka Regulasi Aset Kripto."

RESULTS AND DISCUSSION

Civil-Law Frameworks in Various Countries Accommodating the Use of Crypto Assets

The Oxford English Dictionary defines cryptography as the art of writing or solving codes. Cryptography concerns the transmission of messages through particular codes or ciphers to preserve confidentiality in communications. In the modern era, it involves computer-based mathematical techniques for securing information, systems, and digital distribution against unauthorized intrusion. In 2008, the idea emerged of an electronic currency secured by cryptographic technology so that transactions would not require a centralized financial authority. The first such cryptocurrency was Bitcoin. Each transaction is protected by a code accessible only to the recipient, while transaction data are recorded in a digital ledger distributed throughout the user network. The ledger consists of interlinked data blocks forming a chain of transaction records, which became known as a blockchain. The term cryptocurrency now refers to means of exchange that use cryptographic technology in processing transactions.[5]

No international treaty specifically regulates cryptocurrency, even though it has become increasingly important to the global economy and financial system. International regulation and treaty-making in this area remain at an early and evolving stage. Several jurisdictions have enacted national rules, but harmonization has not yet been achieved in international law. International initiatives and discussions nevertheless extend from instruments such as the United Nations Convention on Contracts for the International Sale of Goods (CISG) and work by the United Nations Commission on International Trade Law (UNCITRAL) to measures adopted by national regulatory authorities. The CISG regulates contracts for the international sale of goods but does not specifically prescribe whether cryptocurrency may be used as a payment method. It does, however, require buyers to pay the price and comply with contractual formalities.

Freedom of contract occupies a central place in international trade law and enables parties to determine payment terms suited to their interests. UNCITRAL likewise does not directly regulate crypto assets, although it has developed model laws addressing electronic commerce and international e-commerce. Within this framework, crypto assets are treated less as money in the traditional sense than as electronic information capable of use in electronic transactions.[6]

The United States illustrates why a single label such as 'cryptocurrency law' is insufficient. Federal treatment depends on the asset, transaction, intermediary, and legal question, including securities, commodities, money-transmission/AML, tax, custody, and state private law. As of the study's cut-off, federal regulators had continued to refine crypto-asset classifications and market rules. The comparison therefore does not assume that every token is a security or that a federal supervisory category resolves ownership, transfer, or priority under private law.[7]

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[5] Kharisma and Uwais, "Studi Komparasi Regulasi Perdagangan Aset Kripto."
[6] Djati and Dewi, "Regulasi Metode Pembayaran dengan Mata Uang Kripto."
[7] Djati and Dewi, "Regulasi Metode Pembayaran dengan Mata Uang Kripto."

The United States does not provide a single statutory definition of crypto assets. Instead, it applies sectoral regulation through several federal agencies according to their respective functions and authority. The Financial Crimes Enforcement Network classifies crypto assets as convertible virtual currency within the scope of money services businesses, subjecting relevant actors to the Bank Secrecy Act, particularly its anti-money-laundering, reporting, and counter-terrorist-financing obligations. The Securities and Exchange Commission assesses crypto assets case by case under the Howey test to determine whether a digital asset qualifies as a security subject to the Securities Exchange Act. The Commodity Futures Trading Commission, through its 2015 Coinflip order, determined that Bitcoin and other cryptocurrencies are commodities, giving it authority to supervise crypto-asset derivatives and futures markets and enforce anti-manipulation and anti-fraud rules.

Japan applies a functional statutory structure. The Payment Services Act regulates 'crypto-assets' and relevant exchange/custody services, while the Financial Instruments and Exchange Act addresses tokenised or electronically recorded rights that fall within financial-instrument categories. The legal consequence depends on function rather than the technology alone. For comparative purposes, Japan is used to show how public-law classification, segregation/custody obligations, and private-law consequences can be coordinated without treating native crypto assets and tokenised securities as the same object.[8]

Japan regulates crypto assets through two legal regimes: the Payment Services Act and the Financial Instruments and Exchange Act, distinguishing assets according to their functions and characteristics. The Payment Services Act classifies crypto assets as payment instruments in the form of digital property that may be used in transactions and traded or transferred electronically. It also governs crypto-asset trading, tax obligations, and anti-money-laundering requirements. Each crypto-asset trading service provider must obtain authorization from the Financial Services Agency, assess crypto assets before listing them, and comply with consumer-protection requirements. These include segregating corporate and customer assets, storing most customer assets in cold wallets, applying know-your-customer principles, and reporting suspicious and high-value transactions. The Financial Instruments and Exchange Act governs crypto assets possessing the characteristics of securities, particularly electronically recorded transferable rights, so that their offering, trading, and distribution must comply with capital-market rules, including registration, prospectus, anti-manipulation, and anti-fraud requirements.

Singapore likewise uses functional, risk-based regulation. The Payment Services Act regulates digital payment token services and associated AML/CFT and licensing obligations, while capital-markets law may apply where a token constitutes a capital-markets product. Monetary Authority of Singapore guidance is treated as regulatory interpretation rather than private-law codification. The Singapore comparison is therefore directed to intermediary duties and regulatory classification, while recognising that questions of proprietary character, trust, insolvency, and transfer may require separate private-law analysis.[9]

[8] Kharisma and Uwais, "Studi Komparasi Regulasi Perdagangan Aset Kripto."
[9] Kharisma and Uwais, "Studi Komparasi Regulasi Perdagangan Aset Kripto."

Singapore regulates crypto assets through a risk-based approach under the Monetary Authority of Singapore. Since 2014, the Authority has emphasized that regulation of virtual-currency intermediaries focuses on mitigating money-laundering and terrorist-financing risks, while advising businesses and consumers to consider the risks of crypto-asset transactions. In a 2017 public consultation, it proposed the Payment Services Bill to consolidate payment-services regulation within a single legal framework, extend regulation to crypto-asset services and other payment innovations, and apply supervision proportionately to risk. Under the Securities and Futures Act, digital tokens possessing the characteristics of shares, units in a collective investment scheme, or debt instruments qualify as securities and fall within capital-market supervision. This framework authorizes the Authority to regulate crypto-asset service providers, strengthen the protection of customer funds, establish technology-risk-management standards, improve payment-system interoperability, and ensure compliance with anti-money-laundering and counter-terrorist-financing requirements.[10]

Table. Functional Comparative Matrix

Jurisdiction	Public-law classification	Intermediary/custody focus	Private-law lesson for Indonesia
United States	Asset- and transaction-specific federal/state regimes	Securities/commodities/AML/state licensing depending on activity	Regulatory classification does not automatically settle property, transfer or priority
Japan	Payment Services Act + Financial Instruments and Exchange Act functional categories	Exchange/custody and client-protection requirements	Differentiate native crypto assets from tokenised financial rights
Singapore	Payment Services Act digital-payment-token services + capital-markets rules where applicable	Licensing, AML/CFT, safeguarding and conduct	Separate intermediary regulation from proprietary/insolvency questions
Indonesia	OJK digital-financial-asset/crypto supervision after 2025 transfer	Market conduct, licensing/supervision and consumer protection	Add explicit private-law rules on control, transfer, opposability, security, inheritance and insolvency

[10] Yudhi Priyo Amboro and Agustina Christi, "Prospek Pengaturan Cryptocurrency sebagai Mata Uang Virtual di Indonesia (Studi Perbandingan Hukum Jepang dan Singapura)," *Journal of Judicial Review* 21, no. 2 (2019): 14-40, https://doi.org/10.37253/jjr.v21i2.665.

Global efforts to regulate cryptocurrency increasingly involve cooperation among states and institutions in responding to the sector's complex challenges. The process extends from dialogue in multilateral forums to measures adopted by national regulators, with many actors seeking more uniform and coordinated frameworks. The United States, Japan, and Singapore have taken concrete domestic measures, while regional initiatives such as the European Union's Markets in Crypto-Assets framework and cooperation within the Association of Southeast Asian Nations demonstrate efforts to promote regulatory convergence. Referencing international financial standards and involving institutions such as the World Bank and International Monetary Fund have further advanced these efforts. Although substantial and diverse challenges remain, regulation continues to develop toward an environment that is safe, trustworthy, and inclusive for users and businesses worldwide. This process requires broad collaboration among governments, regulators, businesses, academics, and civil society to balance innovation and protection.

The development of Indonesian crypto markets is relevant as regulatory context, but exchange-specific customer counts, coin counts, and transaction volumes change rapidly and are not necessary to establish the private-law issue. This article therefore does not rely on promotional or time-sensitive platform statistics. The legal analysis begins instead from the existence of regulated crypto-asset activity and asks what civil-law consequences follow from control, transfer, custody, and competing claims.[11]

Gaps in Indonesia's Civil-Law Framework for Regulating Crypto-Asset Developments

Article 499 of the Indonesian Civil Code may provide a doctrinal starting point for asking whether a crypto asset can be treated as an object of rights because it has economic value and can be controlled or transferred, but the provision does not by itself solve modern digital-property questions. A complete private-law analysis must address numerus clausus, the type of proprietary right recognised, the functional equivalent of possession or control, publicity toward third parties, valid transfer, opposability, good-faith acquisition, security interests, tracing, inheritance, insolvency, and conflict of laws. The article therefore uses Article 499 cautiously as a gateway rather than as conclusive statutory recognition of a full crypto-property regime.[12][13]

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[11] Djati and Dewi, "Regulasi Metode Pembayaran dengan Mata Uang Kripto."

[12] Abdiel Hosana Gunawan, "Aset Kripto (Crypto Asset) sebagai Objek Jaminan Kebendaan" (undergraduate thesis, Universitas Atma Jaya Yogyakarta, 2021), https://repository.uajy.ac.id/id/eprint/26418/.

[13] Cesilia Aprianes, "Pemahaman terhadap Pasar Aset Kripto dengan Keunggulan Metaversnya berdasarkan Undang-Undang No. 4 Tahun 2023 tentang Penetapan Daftar Aset Kripto yang Diperdagangkan di Indonesia," *Multilingual: Journal of Universal Studies* 4, no. 2 (2024): 79-88.

Crypto assets must be examined against the foundations of Indonesian civil law, which still largely rest on the Civil Code inherited from the Dutch colonial period. Article 499 defines property as anything capable of being the object of a right and possessing economic value,[14] and the Code principally classifies property as movable or immovable and tangible or intangible. This definition emerged in the context of an agrarian society and an economy based on physical objects. Applying it to decentralized digital assets without material form therefore reveals a gap between the normative concept and contemporary technological reality. The category of intangible property traditionally recognized by the Civil Code generally encompasses claims and intellectual-property rights whose existence still depends on physical entities or centralized systems capable of supervision.[15] This study accordingly examines how crypto assets may be constructed within the Civil Code's law of property.

Native crypto assets and tokenised rights require different reasoning. A native token may itself be the digital object over which control is exercised. A tokenised asset, by contrast, may merely represent a contractual, securities, beneficial, warehouse, land, commodity, or other underlying right. Transfer of the token does not automatically transfer the underlying right unless the governing law, register, contract, and constitutive requirements produce that consequence. Legal protection must therefore specify whether the token is the asset, evidence of a right, an instruction to a register, or a contractual mechanism for exercising another right.[16]

Asset tokenization is the digitalization of rights in an asset through the issuance of blockchain-based tokens representing particular rights in an underlying asset. In legal terms, a token does not stand as an independent legal object but constitutes a digital representation of an existing right, whether a property right, a claim, or another economic entitlement. The legal character of a tokenized asset is therefore determined not by the token's digital form but by the substance of the represented right and the legal regime governing the underlying asset. This view is consistent with the functional classification of tokens as payment, utility, and asset or security tokens. Tokens representing real-world assets are, in substance, instruments representing property or financial rights already recognized by the legal system.[17]

[14] Kitab Undang-Undang Hukum Perdata (Burgerlijk Wetboek), Staatsblad 1847 Nomor 23, art. 499.
[15] Nadela Ramadhanty Caesarani Lahay, Nur Mohamad Kasim, and Sri Nanang Meiske Kamba, "Transformasi Konsep Kebendaan dalam Era Digital: Dekonstruksi Status Hukum Aset Kripto sebagai Objek Perdata Modern di Indonesia," *Judge: Jurnal Hukum* 6, no. 3 (2025): 727-739, https://doi.org/10.54209/judge.v6i03.1592.
[16] Peraturan Badan Pengawas Perdagangan Berjangka Komoditi Nomor 8 Tahun 2021 tentang Pedoman Penyelenggaraan Perdagangan Pasar Fisik Aset Kripto (Crypto Asset) di Bursa Berjangka; Undang-Undang Republik Indonesia Nomor 4 Tahun 2023 tentang Pengembangan dan Penguatan Sektor Keuangan.
[17] Firlli Wijaksana, "Aset Kripto Berbasis Real World Assets: Rekonstruksi Hukum Kebendaan dalam Kerangka Regulasi Keuangan Digital Indonesia," *Legal: Jurnal Reformasi Hukum Pidana dan Perdata* 1, no. 2 (2026): 51-65, https://doi.org/10.67096/legal.v1i2.80.

Within Indonesian civil law, tokenized assets may be constructed under Article 499 of the Civil Code, which defines property as every good and right capable of ownership.[18] Digital tokens are therefore more appropriately viewed as intangible property representing rights that possess economic value and can be controlled and transferred. This construction does not conflict with the closed system of property rights under Book II of the Civil Code, because tokenization does not create a new category of property right; it merely introduces a new mechanism for recording, controlling, and transferring existing rights. Tokenization likewise does not alter the law governing the underlying asset. If a token represents a right in land or another asset subject to a special legal regime, the transfer must continue to satisfy the formal requirements prescribed by legislation.

Indonesian law can therefore recognize tokenized assets provided they are understood as digital representations of rights rather than as new legal objects or property rights outside the existing law of property.[19]

Crypto-asset regulation in Indonesia also faces challenges arising from users' concerns about security, restrictions on anonymity, and limited flexibility in using crypto assets as a means of payment. Security remains one of the most significant concerns for users. Although blockchain technology offers a high degree of security, users continue to face cyber threats, including private-key theft and fraud involving digital wallets.[20]

Protection for crypto-asset holders in Indonesia rests on legal principles and policies intended to safeguard consumer rights and provide justice, certainty, and legal utility to parties who transact in and consume goods and services. Law Number 8 of 1999 on Consumer Protection provides the legal framework governing consumer rights and obligations, the responsibilities of producers and traders, and consumer-dispute-settlement mechanisms.[21] It protects consumers' rights to clear and accurate information; guarantees concerning purchased goods and services; safety and security; compensation and redress for defective goods or services; and proper, honest treatment by business actors.[22]

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[18] Kitab Undang-Undang Hukum Perdata, art. 499.

[19] Wijaksana, "Aset Kripto Berbasis Real World Assets."

[20] Joni Laksito, Dian Karisma, and Budi Hartono, "Tantangan Hukum dalam Regulasi Transaksi Kripto di Indonesia antara Peluang dan Risiko," *JAKSA: Jurnal Kajian Ilmu Hukum dan Politik* 2, no. 4 (October 2024): 57-69, https://doi.org/10.51903/jaksa.v2i4.2269.

[21] Undang-Undang Republik Indonesia Nomor 8 Tahun 1999 tentang Perlindungan Konsumen (Lembaran Negara Republik Indonesia Tahun 1999 Nomor 22, Tambahan Lembaran Negara Republik Indonesia Nomor 3821).

[22] Robertus Nugroho Perwiro Atmojo and Fokky Fuad, "Upaya Perlindungan Hukum bagi Para Konsumen Pemegang Aset Kripto di Indonesia," *Jurnal Hukum to-Ra: Hukum untuk Mengatur dan Melindungi Masyarakat* 9, no. 2 (2023): 254-276, https://doi.org/10.55809/tora.v9i2.260.

Indonesia's supervisory framework has changed materially. Regulatory and supervisory authority for financial-sector crypto assets moved from Bappebti to OJK in January 2025 pursuant to the financial-sector reform framework and implementing regulation. OJK Regulation Number 27 of 2024 established the framework for digital financial assets including crypto assets, and subsequent amendments in 2025 refined that regime. This transfer strengthens public-law supervision but should not be equated with a complete private-law determination of ownership, transfer, security interests, inheritance, or insolvency. The core legal gap analysed here is the relationship between supervisory classification and civil-law consequences.[23][24]

Law Number 4 of 2023 on Financial Sector Development and Strengthening changed the regulatory paradigm for crypto assets in Indonesia by transferring authority from Bappebti to the Financial Services Authority.[25] Crypto assets are consequently no longer positioned solely as commodities but as part of the digital-financial-asset ecosystem. This shift expands the regulatory scope to consumer protection, governance, market integrity, and financial-system stability, making it more consistent with the characteristics of tokenized real-world assets representing financial rights or claims. Financial Services Authority regulations are nevertheless insufficient to establish a comprehensive framework for asset tokenization because they are confined to financial-services supervision. They cannot determine civil-law matters such as the legal status of tokenized assets, mechanisms for transferring rights, or their treatment under inheritance law, nor can they create new criminal prohibitions for crypto-asset offenses, which remain subject to the principle of legality.

The allocation of authority and coordination among the Financial Services Authority, Bank Indonesia, the Directorate General of Taxes, and the Financial Transaction Reports and Analysis Center also require a statutory foundation to ensure legal certainty and harmonize tokenized-asset regulation within the national legal system.[26]

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[23] Peraturan Badan Pengawas Perdagangan Berjangka Komoditi Nomor 8 Tahun 2021 tentang Pedoman Penyelenggaraan Perdagangan Pasar Fisik Aset Kripto (Crypto Asset) di Bursa Berjangka, sebagaimana telah beberapa kali diubah terakhir dengan Peraturan Badan Pengawas Perdagangan Berjangka Komoditi Nomor 9 Tahun 2024.
[24] Atmojo and Fuad, "Upaya Perlindungan Hukum bagi Para Konsumen Pemegang Aset Kripto."
[25] Undang-Undang Republik Indonesia Nomor 4 Tahun 2023 tentang Pengembangan dan Penguatan Sektor Keuangan (Lembaran Negara Republik Indonesia Tahun 2023 Nomor 4, Tambahan Lembaran Negara Republik Indonesia Nomor 6845).
[26] Wijaksana, "Aset Kripto Berbasis Real World Assets."

CONCLUSION

Indonesia has developed a substantially stronger public-law framework for crypto-asset supervision, especially after the transfer of authority to OJK, but supervisory regulation does not by itself settle the private-law status of digital assets. Article 499 of the Civil Code may support a cautious doctrinal starting point, yet legal certainty requires explicit rules on categories of assets, control, ownership or proprietary entitlement, transfer, publicity/opposability, security interests, custody, inheritance, insolvency, and the relationship between a token and an underlying asset.

The United States, Japan, and Singapore are used as functional comparators rather than as a claim of global coverage. Their regulatory diversity demonstrates the need to separate public-law market supervision from private-law consequences. Because this field develops rapidly, the comparison is limited to materials available through 31 August 2026 and should be updated when major statutory or regulatory changes take effect.

They do not resolve cross-sectoral civil-law issues involving the protection of property rights, certainty in transfers, inheritance, dispute resolution, and interagency coordination. Indonesia therefore needs legislation that comprehensively integrates civil law, financial-sector law, consumer protection, and the special legal regimes governing underlying assets, thereby providing legal certainty for the existence and use of tokenized assets within the national legal system.

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