

Vietnam's evolving crypto-asset landscape: legal challenges, regulatory first crypto sandbox and market implications

Nguyen Phuong An
Nguyen Thi Minh Phuong

Ho Chi Minh City University of Law,
2 Nguyen Tat Thanh, Xom Chieu Ward
Ho Chi Minh City, Vietnam
npan@hcmulaw.edu.vn
ntmphuong_qte@hcmulaw.edu.vn

Abstract: Vietnam is undertaking transformative policy initiatives aimed at shaping the crypto-asset market and advancing blockchain applications. For the first time, the Vietnamese government has authorised the implementation of the country's inaugural crypto-asset sandbox project, introducing a controlled platform designed to streamline crypto-to-fiat transactions. This regulatory sandbox operates as a pilot mechanism intended to reduce legal and regulatory barriers associated with crypto-assets and related transactions in Vietnam, while allowing regulators to observe and manage potential risks. This paper examines the current landscape of crypto-assets in Vietnam and analyses the challenges faced by stakeholders engaged in crypto-asset transactions. It further explores the implications of the country's first crypto-asset sandbox project in shaping the crypto-asset market. Through this comprehensive approach, the study offers insights of practical relevance to policymakers, legal practitioners and industry participants navigating the rapidly evolving crypto-asset environment in Vietnam.

Keywords: *blockchain, crypto-assets, digital assets, Vietnamese legal framework*

1. Introduction

Vietnam has experienced rapid growth in crypto-asset transactions, with annual trading volumes estimated to exceed 100 billion US dollars, and the country was ranked by the US-based blockchain analytics firm Chainalysis (2025) among Asia's top three cryptocurrency markets between 2023 and 2024. Despite this dynamic development, until recently the concept of 'crypto-assets' had not been formally recognised or regulated within the Vietnamese legal system. The only relevant legal reference concerned 'virtual items' in the context of payment support services for online games. Under this framework, such items are explicitly excluded from the legal definition of assets under the *Civil Code 2015* (Law No. 91/2015/QH13): they cannot be redeemed for money, used as a means of payment or exchanged beyond the confines of the gaming environment ('Circular No. 24/2014/TT-BTTTT', 2014, Article 7).

The State Bank of Vietnam (SBV) has consistently maintained that bitcoin and other forms of virtual currency do not constitute 'currency' and therefore are not lawful means of payment in Vietnam. This restrictive stance was reinforced through a series of government decrees prohibiting the issuance, supply and use of virtual currencies as means of payment ('Decree No. 80/2016/ND-CP', 2016).

However, with the rapid advancement of blockchain technology, the digital economy has evolved far beyond virtual currencies alone. A diverse range of blockchain-based assets has emerged in various forms and under different labels, including digital currencies, cryptocurrencies, non-fungible tokens (NFTs), crypto-assets and smart-contract-based assets. Transactions involving these assets have become increasingly active and commercially significant. Nevertheless, persistent concerns and disagreement among policymakers regarding the risks and implications of recognising the legal value of blockchain-based virtual assets have substantially delayed the formation of a coherent legal framework for crypto-assets.

It is observed that the prolonged absence of comprehensive regulation has resulted in inconsistent and often confusing terminology, such as 'cryptocurrencies' (*tiền mã hoá*), 'virtual currencies' (*tiền ảo*) and 'electronic currencies' (*tiền điện tử*), 'digital assets' (*tài sản số*), 'crypto-assets' (*tài sản mã hoá*) and 'virtual assets' (*tài sản ảo*), while allowing crypto-asset transactions to operate largely outside formal legal oversight. This regulatory vacuum

not only leaves transaction participants inadequately protected by the State but also contributes to losses in public revenue, creates conditions conducive to money laundering, fraud, tax evasion and other cryptocurrency-related crimes. Against this backdrop, the Vietnamese government has openly acknowledged that developing a comprehensive legal framework to regulate and manage digital assets is both inevitable and urgent for Vietnam in light of its integration ('Decision No. 1236/QĐ-TTg', 2024).

A major milestone was reached in 2025 with the enactment of the *Law on Digital Technology Industry* (LDTI). For the first time, the LDTI formally recognises digital assets and crypto-assets as objects of economic value and subject to transparent legal standards. It establishes core regulatory principles relating to risk management, investor protection and compliance obligations for organisations providing crypto-asset-related services. Beyond preventing misuse of digital assets for illegal purposes, the LDTI also aims to promote innovation and support the development of Vietnam's domestic digital technology market. As such, the LDTI 2025 establishes a regulatory "safe corridor" for digital asset activities, with particular emphasis on crypto-asset transactions, thereby facilitating Vietnam's deeper integration into the global digital economy. These legislative efforts are complemented by 'Resolution No. 05/2025/NQ-CP' (2025; hereafter Resolution 05) on piloting the crypto-asset market, which introduces a controlled environment for regulatory experimentation. As a result, in August 2025, Vietnam's first controlled fintech sandbox project—Basal Pay—was officially approved in Da Nang, reflecting the government's broader strategy of formalising the crypto-asset market through supervised pilot mechanisms (Datta, 2025).

Despite these advances, Vietnam still faces unresolved regulatory challenges, including the legal classification of different categories of digital assets, the articulation of licensing and supervisory requirements for crypto-asset service providers and clearer coordination among key authorities, particularly the SBV, the Ministry of Finance and other sectoral regulators. Addressing these issues will be essential to ensuring legal certainty, strengthening market confidence and supporting the sustainable development of Vietnam's crypto-asset ecosystem.

As Vietnam takes significant steps to regulate crypto-assets, the next sections of this article trace the shift from regulatory uncertainty to legal recognition. The analysis will cover how crypto-assets are defined and classified under new laws, outline key legislative changes and highlight emerging challenges and opportunities for both market participants and regulators.

2. From regulatory ambiguity to legal recognition: the legal status of crypto-assets

2.1 Defining crypto-assets: doctrinal challenges under Vietnamese law

Previously, the term ‘crypto-asset’ was not recorded in Vietnamese law. The existence of ‘non-physical, computer-only assets’ was known as ‘virtual assets’ and often associated with online games. These assets are not property and are prohibited from being used as a means of payment for real-life transactions (‘Circular No. 24/2014/TT-BTTTT’, 2014, Article 7). The SBV also issued a communiqué in 2014 (*VnEconomy*, 2014) and later in 2018 (‘Directive No. 02/CT-NHNN’, 2018) concerning bitcoin and other similar digital currencies. According to these statements, such instruments are not currencies and cannot be regarded as legal means of payment in Vietnam. It may be observed that, in the past, the SBV only recognised crypto-assets as currencies similar to bitcoin and referred to them using the term ‘virtual currencies’. Virtual currencies have no value and are not accepted for real-life payments. This stems from the principle that the SBV is the only agency that can issue money (*Law on the State Bank 2010*, Article 2(3)).

However, along with the development of blockchain technology, the products created have also become more diverse, as in addition to coins, there are also non-fungible tokens (NFTs), smart-contract-based assets, etc. The International Monetary Fund (IMF) believes that using the term ‘money’ for assets created from distributed ledger technology (DLT) is inaccurate and can be confusing (Nguyen, 2020). Accordingly, identifying crypto-assets solely as virtual currencies represents a narrow conceptual approach, as it fails to encompass other types of crypto-assets.

The introduction of the LDTI in 2025 has created a turning point in Vietnam’s legal framework, representing a change in the government’s approach to crypto-assets. The LDTI has introduced the concept of crypto-assets with a wide scope, thereby addressing gaps that had previously existed in the framework. Article 47(2)(b) of the LDTI defines crypto-assets as follows:

Crypto-assets refer to a type of digital asset that uses cryptography or digital technologies with similar functions to authenticate the assets during their creation, issuance, storage or transfer. Crypto-assets *do not* include securities, digital forms of fiat money and other financial assets as prescribed by civil laws and financial laws.

Under this regulation, crypto-assets are recognised as digital assets, while digital assets are defined as *property* under the *Civil Code* (LDTI, 2025, Article 46). Property, according to the general definition, is seen as anything that has an exchange value and is capable of being owned by an individual or organisation. A key criterion in determining the legal status of a property is the ability to possess, dominate or control it (Le, 2024). Article 47(2)(b) of the LDTI records that the owner of this asset still has the same rights as the ownership of traditional assets, including the right to use and the right to exclude others to exploit (Nguyen, 2020). The use of such assets is reflected in the activity of creating, storing and transferring crypto-assets. The difference between crypto-assets and traditional assets is that the aforementioned activities are carried out through cryptographic technology for authentication.

The regulation of crypto-assets in the LDTI has created the basis for the development of a sandbox of crypto-asset exchanges in Vietnam. Defining the concept of crypto-assets is therefore of fundamental importance for determining their scope and legal nature, as well as for establishing the applicable rules on ownership, control and disposition of such assets. As those 'crypto products' can be deemed as resources with economic value, they are defined as 'assets'. However, an important legal question arises as to which of the aforementioned forms of property can be classified as crypto-assets for regulatory and legal purposes. Resolving this question is essential for identifying the applicable legal regime, including rules governing ownership, transferability, regulatory oversight and investor protection.

Article 47(2)(b) of the LDTI only describes the form of existence of crypto-assets, not providing a separate concept but referring to the concept of digital assets. By recognising digital assets as a form of 'properties' as defined under the *Civil Code* (LDTI, Article 46), the LDTI allows for indirect reference to the *Civil Code* to govern issues of ownership establishment. This explicit linkage affirms the legality and legal value of digital assets within the civil-law framework. Whereas the *Civil Code* does not contain specific provisions, digital assets will be regulated under general civil-law principles.

Pursuant to Article 105 of the *Civil Code*, 'property' comprises objects, money, valuable papers and property rights. A simple comparison of the legal characteristics of these categories suggests that crypto-assets cannot be readily classified as objects, money or valuable papers, as they do not satisfy the defining attributes traditionally associated with those forms of property.

In the Vietnamese context, crypto-assets are often equated with cryptocurrencies or virtual currencies such as bitcoin, Ethereum and Solana. Such associations have created an implicit regulatory barrier, given the SBV's firm opposition to the recognition of the legal status of any currencies not issued by the central bank. Consequently, legal and policy debates on crypto-assets have often been constrained by concerns rooted in monetary and currency regulation. From a theoretical perspective, however, ownership of crypto-assets should be examined independently of their monetary function and instead assessed through the lens of property law, particularly as a form of intangible asset or property right capable of generating economic value.

It should be noted that under Article 105 of the *Civil Code*, property rights are recognised as a category of property. To that end, it is believed that property rights over crypto-assets may be considered from the perspective of rights capable of being valued in monetary terms relating to 'other property rights'. In Vietnamese legal practice, property rights are understood as a benefit that is valued in money formed and belongs to the rights holder (Nguyen, 2015). This characteristic is also consistent with the characteristics of crypto-assets.

Crypto-assets are intangible assets that exist solely by virtue of blockchain technology; so, it is not necessary to establish ownership of this asset similarly to traditional tangible assets. What the holder effectively possesses is not a tangible object but rather the benefits derived from control over that asset. An individual user does have control over a private key, which allows the individual user to exercise "control" over a crypto-asset on blockchain systems.

The view emphasising the "control" factor for crypto-assets is also reflected in the UNIDROIT *Principles on digital assets and private law* (2023, hereafter PDAPL). Pursuant to the PDAPL, 'digital asset' means an electronic record which is capable of being subject to control. Principle 6 of the PDAPL further clarifies that a person has "control" of a digital asset if he has (i) the exclusive ability to prevent others from obtaining substantially all of the benefit from the digital asset; (ii) the ability to obtain substantially all of the benefit from the digital asset and (iii) the exclusive ability to transfer the abilities in (i), (ii) and (iii) to another person. However, the PDAPL only establishes core concepts and rules to fill existing gaps and enhance legal certainty when applying private national law to digital assets. Principle 3(3) clearly stipulates that national law continues to govern all matters related to digital assets and the establishment of ownership over digital assets. (UNIDROIT, 2023)

Thus, the recognition of crypto-assets as assets under the LDTI has ensured the rights of owners to crypto-assets in Vietnam. The next issue that Vietnamese law needs to solve is the classification of property, as defined under the *Civil Code*, for crypto-assets. Different types of assets are subjected to different legal norms for regulation and management purposes, thereby creating different legal consequences. Of the asset classifications that exist, it seems that property rights are the most consistent with the characteristics of crypto-assets. If crypto-assets are recognised as property rights, does their ownership require registration similar to when establishing ownership of land-use rights or intellectual property rights? This is an issue to which Vietnam's lawmakers need to give more specific guidelines in the near future.

2.2 Classification of crypto-assets according to Vietnamese law

Prior to the entry into force of the LDTI, the Vietnamese regulatory framework contained no explicit provisions recognising 'crypto-assets' (*tài sản mã hoá*) and 'digital assets' (*tài sản số*) as a distinct category of assets. The LDTI introduces a systematic approach to the classification of digital assets. Accordingly, digital assets are to be classified based on one or more specific criteria, such as their purpose of use and underlying technology. Pursuant to Article 47(2) of the LDTI, digital assets are divided into three categories, as follows:

- a) Virtual assets (*tài sản ảo*) in the electronic environment refer to a category of digital assets that may be used for exchange or investment purposes. Virtual assets do not include securities, digital representations of fiat currency or other financial assets as regulated under civil and financial law.
- b) Crypto-assets (*tài sản mã hoá*) refer to a category of digital assets that employ cryptography or similar digital technologies to authenticate the asset during its creation, issuance, storage or transfer. Crypto-assets likewise exclude securities, digital forms of fiat currency and other financial assets as defined under civil and financial laws.
- c) Other types of digital assets.

Although all categories of digital assets share common characteristics—namely, their intangible nature, recognition as assets under the *Civil Code*,

expression in the form of digital data, and creation, storage, transfer and authentication through digital technologies in an electronic environment—the distinction between ‘virtual assets’ and ‘crypto-assets’ is drawn on the basis of both technological features and intended use.

Virtual assets in the electronic environment are defined as digital assets that may be used for exchange or investment purposes. This category has a broad scope, encompassing digital assets generated through various advanced digital technologies, including digital simulation technologies and artificial intelligence (AI). Such assets may exist independently of cryptographic mechanisms and are primarily characterised by their functional role in economic transactions rather than the specific technological means through which they are created or managed. By contrast, crypto-assets are subject to stricter technological criteria, requiring the use of cryptography or similar digital technologies for authentication throughout their creation, issuance, storage and transfer. Most crypto-assets are closely associated with blockchain or comparable distributed ledger technologies (DLT), reflecting higher levels of technical complexity and regulatory sensitivity.

In practice, crypto-assets are highly diverse, encompassing multiple forms and characteristics, such as cryptocurrencies and NFTs. The LDTI limits itself to defining the general nature of digital assets, namely their intangible character, expression as digital data and authentication through digital technologies, without exhaustively identifying specific asset types. This open-ended regulatory approach, which focuses on defining characteristics while excluding certain financial assets, offers flexibility in response to the evolving digital asset landscape. At the same time, it indicates that the LDTI serves primarily as a foundational legal framework rather than a comprehensive regulatory regime. Detailed regulatory authority is therefore delegated to the government and relevant ministries through sector-specific and tailored regulatory instruments, such as Resolution 05 on the pilot implementation of the crypto-asset market (sandbox programmes).

3. Building the rails before the train runs: legal architecture of crypto-asset governance in Vietnam's sandbox regime

While the preceding section has demonstrated that Vietnamese law increasingly acknowledges crypto-assets as legal property, such recognition remains inherently incomplete without a corresponding regulatory framework for market infrastructure. The legal status of crypto-assets acquires practical meaning only when embedded within institutional arrangements that manage risk, ensure compliance and enable lawful transactions. Against this backdrop, the regulation of crypto-asset exchanges represents the critical next layer of Vietnam's digital asset framework. The analysis below focuses on the legal conditions for establishing such exchanges, highlighting how entry requirements, ownership constraints and technical standards function as mechanisms of risk containment and market design.

3.1 State management towards activities of creating, issuing, storing and setting up the ownership of crypto-assets

3.1.1 Conditions of the entity creating, issuing and storing crypto-assets

The framework for State management of digital assets in Vietnam is primarily established under Article 48 of the LDTI and further specified in Resolution 05. Together, these instruments lay the legal foundation for regulating digital assets through a controlled, risk-based and phased approach, with an emphasis on market safety, transparency and regulatory oversight.

With respect to the scope and content of State management, Article 48 of the LDTI provides that competent authorities exercise comprehensive regulatory control over digital asset-related activities, including creation, issuance, storage, transfer and the establishment of ownership rights.

3.1.1.1 Conditions on corporate governance: issuer eligibility and the principle of regulatory anchoring

According to Article 5 of Resolution 05, any crypto-asset issuer must be a Vietnamese enterprise established as a limited liability company (LLC) or a joint stock company (JSC) under the *Law on Enterprises*. This condition

reflects a deliberate legislative choice to anchor crypto-asset issuance within the domestic corporate and regulatory system, aiming to ensure clear legal personality, limited liability based on contributed capital and effective regulatory supervision from the outset, while reducing systemic and investor risks. Notably, such entities are prohibited from issuing crypto-assets that qualify as securities, digital forms of fiat money or other financial assets regulated under civil and financial laws. Therefore, from a legal perspective, this requirement serves several interrelated objectives.

First, it ensures that issuers are subject to Vietnamese corporate governance rules, including statutory capital requirements, internal management structures, accounting obligations and disclosure duties. By restricting the subjects who can be the issuers to formal corporate entities, the regulation excludes individuals, partnerships and informal business models which are generally characterised by weaker governance and diffuse liability. Otherwise, limiting issuer forms to LLCs and JSCs reflects a preference for limited liability structures with transparent ownership and management, thereby facilitating risk allocation and investor protection. In doctrinal terms, this aligns crypto-asset issuance more closely with regulated capital-raising activities, even though crypto-assets are not legally classified as securities in Vietnamese *Law on Securities*.

Second, the requirement of Vietnamese incorporation establishes a clear basis for regulatory jurisdiction and enforcement. Under Resolution 05, only Vietnamese enterprises are permitted to issue crypto-assets and operate crypto-asset exchanges, thereby excluding enterprises with foreign direct investment or joint-venture structures. However, according to the *Law on Investment 2025* and the *Law on Enterprises 2020* of Vietnam, the foreign-invested enterprises can also be deemed as Vietnamese incorporation as long as the foreign investor ownership ratio in the company does not constitute a majority. The LDTI does not expressly restrict eligible issuers by ownership structure nor prescribe minimum capital thresholds. Therefore, it is questionable whether Article 5(1) of Resolution 05 allows foreign-invested enterprises to engage in this business activity subject to conditions.

In the context in which Vietnam has become an attractive market for foreign investors, thanks to the increase of bilateral and regional free trade agreements, a clear regulation on corporate regulation is a prerequisite. This source of international law promotes openness and integration, by tackling issues which are not readily available for multilateral negotiations and by

preparing the stepping stones for the next level of multilateral liberalisation (Turksen and Nguyen, 2020).

The resulting regulatory divergence reflects the experimental nature of the sandbox mechanism, but at the same time creates legal uncertainty as to whether the restriction to purely domestic issuers represents a permanent policy choice or merely a temporary safeguard subject to future liberalisation once the crypto-asset market framework is fully developed.

3.1.1.2 Issuance based on underlying real-world assets (RWA): a substantive constraint

Article 5(2) introduces a substantive condition: crypto-assets may only be issued on the basis of underlying real assets, explicitly excluding assets that qualify as securities or fiat money. This requirement marks a critical regulatory intervention in defining the permissible economic substance of crypto-assets within the sandbox. By mandating a linkage to real assets, the regulation seeks to curtail the proliferation of purely speculative or algorithmic tokens lacking intrinsic value. In legal terms, this reflects a prudential and asset-backed regulatory philosophy, aimed at mitigating volatility, fraud and systemic risk.

Although RWAs (tokens) may be considered a type of crypto-asset, there is currently no official definition of RWAs provided in Vietnam's normative documents or in those of other jurisdictions worldwide. In several articles and academic writings, most authors take the view that RWAs comprise a collection of tangible or intangible assets with real economic value in the traditional financial world, such as real estate, commodities, stocks, bonds, financial contracts or intellectual property (Riabokin and Kotukh, 2024). RWA tokens have become a term used to refer to assets created through the process of tokenising real-world assets—that is, converting ownership rights over a tangible or intangible asset into crypto tokens that can be traded, stored and identified on a blockchain platform (Transak, 2025). These tokens enable real-world assets to be fractionally owned or transferred across borders and to be integrated into the decentralised finance (DeFi) ecosystem in an efficient and transparent manner (Bitcoin.com, 2025). RWA tokenisation is regarded as a bridging instrument between the traditional financial system and the blockchain world.

An important point to emphasise is that RWAs are not limited to tangible physical assets such as real estate, commodities or artworks, but also encompass investable financial products (intangible assets) issued on-chain,

such as digital securities and government bonds, for example, US Treasuries. Although RWAs play a vital role in the traditional financial system (TradFi), they have not yet been extensively leveraged within the decentralised finance (DeFi) world, with the exception of certain fiat-backed stablecoins (crypto-assets linked to real-world assets), such as USDT or USDC (Lim, 2025). Therefore, the broad and secure integration of RWAs into blockchain is considered a major breakthrough, unlocking a true treasure for DeFi, as well as for cross-border investment flows in general and for Vietnam's financial market in particular.

For organisations providing crypto-asset market services, including trading platforms and custody services under the pilot mechanism, Resolution 05 imposes particularly stringent entry conditions. These include a minimum charter capital of about EUR 320,000,000, reflecting the high-risk nature of crypto-assets and the need to ensure sufficient financial capacity to cover operational losses and compensate investors if necessary.

3.1.2 Crossing the regulatory Rubicon: concrete legal conditions for the establishment of crypto-asset exchanges in Vietnam

The pilot regulatory framework for crypto-asset exchanges in Vietnam marks a decisive shift from prolonged legal ambiguity to conditional legalisation. Rather than recognising crypto exchanges as ordinary business entities, Vietnamese law treats their establishment as a licensed activity subject to heightened entry conditions, reflecting the State's cautious approach to systemic financial risk. Under the pilot regime introduced by the Government, the establishment of a crypto-asset exchange is not governed solely by the *Law on Enterprises* but is contingent upon compliance with a specialised licensing framework administered by the Ministry of Finance, in coordination with the State Bank of Vietnam and the Ministry of Public Security. This confirms that crypto exchanges are legally conceptualised as financial-market infrastructure with public interest implications, rather than purely technological platforms.

3.1.2.1 Conditions on corporate governance

According to the pilot regulatory framework similar to the condition on the corporate governance of the issuer, eligibility to apply for a license to operate a crypto-asset exchange is strictly limited to enterprises incorporated under Vietnamese law in the form of either a limited liability company or a joint stock company. This formal restriction expressly excludes partnerships, sole proprietorships and other simplified business vehicles, thereby signalling the legislator's intention to confine market entry to corporate forms

characterised by clearly defined governance mechanisms, capital structures and legally circumscribed liability regimes.

From a legal standpoint, this choice of corporate forms is not merely technical. LLCs and JSCs are subject to comprehensive statutory rules on corporate governance, internal control, capital maintenance, disclosure obligations and fiduciary duties of managers and directors. By contrast, partnerships and other simplified forms lack comparable safeguards, particularly with respect to risk allocation and accountability. The exclusion of such forms thus functions as an ex-ante risk-containment measure, ensuring that crypto exchanges operate within organisational structures capable of sustaining regulatory oversight and absorbing potential systemic shocks.

Equally significant is the requirement that the exchange operator be a Vietnam-incorporated legal entity. While the framework does not prohibit foreign investment, it mandates domestic incorporation as a condition precedent to licensing. This requirement serves multiple regulatory objectives. First, it ensures that the exchange is unambiguously subject to Vietnamese jurisdiction, thereby facilitating the application and enforcement of domestic laws governing corporate governance, financial supervision, cybersecurity and consumer protection. Second, it strengthens regulatory control over data localisation and information security, as domestically incorporated entities are directly bound by Vietnamese cybersecurity and data protection legislation. Third, it enhances the effectiveness of administrative and judicial enforcement mechanisms, including licensing sanctions, inspections and dispute resolution before Vietnamese authorities and courts.

In this respect, the regulatory framework adopts a controlled-access model that accommodates foreign capital while preserving domestic legal and supervisory dominance. Foreign investors may participate in the ownership structure of licensed exchanges, but the legal personality of the operator itself must remain anchored within the Vietnamese legal order. This approach reflects a deliberate balance between openness to international investment and the State's interest in maintaining sovereign control over strategically sensitive crypto-financial infrastructure.

3.1.2.2 Conditions on charter capital

Organisations providing crypto-asset services must have a contributed charter capital of at least VND 10,000 billion (approximately EUR 320,000,000). This large amount of capital is explained as necessary to

offset losses and reimburse investors when crypto-asset risks occur, while ensuring that the institution has sufficient resources to operate complex asset trading, payment and custody markets. Crypto-asset service providers (CASPs) are responsible for fully implementing regulations on the prevention and combatting of money laundering and counterterrorism financing and must store transaction history on the main server system in Vietnam.

On the side of crypto-asset issuers, these organisations must disclose accurate, truthful, complete and timely information through the Prospectus, providing detailed information on the rights and obligations associated with crypto-assets. From a legal perspective, this capital requirement performs more than a prudential function. While capital adequacy is traditionally justified by investor protection and operational solvency, the magnitude of the threshold effectively operates as a legal gatekeeping mechanism, limiting eligibility to entities with substantial financial backing. This requirement raises important doctrinal questions regarding proportionality. Unlike securities exchanges or intermediaries, crypto exchanges may operate without engaging in leverage, proprietary trading or maturity transformation. Nevertheless, the law imposes a capital requirement comparable to systemically important financial institutions, signalling the regulator's intention to prioritise macro-financial stability over market accessibility.

The ownership structure and foreign investment restrictions imposed by the pilot regime further reinforce institutional dominance as follows:

- At least 65% of charter capital must be held by institutional investors.
- At least 35% of total capital must be contributed by a minimum of two independent organisations, such as commercial banks, securities companies or licensed technology enterprises.
- Foreign ownership is capped at 49% of charter capital.

These quantitative ownership rules serve multiple legal objectives. First, they ensure that control of the exchange remains in the hands of professionally regulated entities with existing compliance obligations. Second, the requirement for multiple institutional shareholders reduces concentration of control and mitigates governance risk. At the same time, the foreign ownership cap reflects a policy choice favouring domestic control over strategically sensitive crypto-financial infrastructure. While not prohibiting foreign participation, the framework subordinates it to national regulatory

priorities, particularly in relation to capital flows, cybersecurity and data governance.

3.1.2.3 Conditions on human resources and governance as legal conditions

Unlike traditional licensing regimes that focus primarily on financial metrics, the Vietnamese framework explicitly incorporates human capital requirements as conditions for establishment, specifically:

- The Chief Executive Officer must possess demonstrable experience in finance, banking, or securities;
- The Chief Technology Officer must have professional expertise in information technology or financial technology;
- Key operational personnel must hold relevant professional certifications in cybersecurity, system administration or securities operations.

Legally, this approach transforms managerial competence into a statutory eligibility criterion, rather than a matter of internal corporate discretion. While this enhances ex-ante risk management, it also grants regulators significant discretionary power in assessing qualitative criteria, raising concerns about transparency and consistency in administrative decision-making.

3.1.2.4 Conditions on risk control and safety measures

The State management places particular emphasis on cybersecurity, national security and systemic risk prevention. Regulated entities must implement robust technical infrastructure, including secure information systems, transaction monitoring mechanisms and data storage facilities. Compliance with AML, CFT and measures against the financing of the proliferation of weapons of mass destruction is mandatory. Issuers of crypto-assets are also subject to strict information disclosure obligations, including the preparation and publication of an accurate and comprehensive prospectus.

Finally, regarding regulatory competence, the LDTI adopts a flexible governance model by delegating detailed regulatory authority to the Vietnamese government and relevant ministries. Resolution 05 assigns the Ministry of Finance primary responsibility for licensing, supervision and enforcement in coordination with other agencies involved in the sandbox programmes for the crypto-assets market. This approach enables adaptive, sector-specific regulation and reflects Vietnam's intention to balance innovation with effective State control in the evolving crypto-asset market.

Fulfilling all the aforementioned conditions, the pilot regime introduces a two-stage licensing process:

- 1) Preliminary approval stage, during which the Ministry of Finance assesses eligibility based on corporate form, ownership structure and initial documentation (within 20 working days).
- 2) Substantive compliance stage, during which the applicant has up to 12 months to fully satisfy capital contribution, human resources and technical infrastructure requirements. Final approval is issued within 30 working days upon completion.

This structure creates a legally unusual interim status: the applicant is recognised as a conditionally approved entity yet lacks full legal capacity to operate. This raises legal questions concerning risk allocation, investor reliance and the treatment of sunk costs should final approval be denied.

The Vietnamese legal framework for the establishment of crypto-asset exchanges does not merely regulate entry; it actively engineers the structure of the market. Through high capital thresholds, institutional ownership requirements, stringent cybersecurity standards and a multi-layered licensing process, the law constructs a narrow and highly controlled entry channel.

While these conditions enhance systemic safety and regulatory oversight, they also risk entrenching market concentration and limiting innovation. From a legal scholarship perspective, the Vietnamese approach exemplifies a precautionary, state-centric model of crypto regulation, where establishment conditions function as instruments of market design rather than neutral safeguards.

3.1.3 Legaltech tools used in crypto compliance

Vietnam manages crypto-asset transactions cautiously, as crypto-assets and cryptocurrencies are not recognised as legal currency or means of payment. Without a dedicated legal framework, the State regulates crypto trading through existing laws on currency, anti-money laundering, cybersecurity, e-commerce and liability. Crypto-asset transactions must strictly comply with regulations on prevention and combat of money laundering, counter-terrorist financing, financing of the proliferation of weapons of mass destruction, as well as regulations on cyber information safety and cybersecurity. The legal issue relevant to personal data protection also requires cautious consideration as the very free flow of information, and

the economy based on it, directly give rise to the problem of personal data commodification, even in the presence of the fundamental right to personal data protection (Vardanyan, Stehlík and Kocharyan, 2022).

According to the provisions of Resolution 05/NQ-CP, organisations providing crypto-asset services must ensure that the information technology system meets Level 4 information system security standards. CASPs must store on the main server system in Vietnam the entire transaction history (at least 10 years) and information about the beneficiary (at a minimum name, address, e-wallet address, internet protocol (IP) address). CASPs must (i) develop processes for risk management, information security, custody processes, customer management, transactions, payments, conflict of interest prevention, complaint resolution, customer compensation and other processes; (ii) apply professional measures to detect and prevent suspicious transactions, break down transactions and update risk indicators in a timely manner; (iii) perform customer due diligence on crypto-asset transactions of EUR 1,000 or more in accordance with international experience (EU AMLR) and (iv) report to the financial intelligence unit (FIU) in the event of due diligence failure.

An important pillar in the State management of crypto-asset trading is the adoption of legaltech tools to meet KYC/AML requirements. The *Law on Prevention and Combat of Money Laundering 2022* has expanded the scope of regulation towards a risk-based approach, requiring service providers related to financial transactions and valuable assets to perform customer identification, store information and report suspicious transactions. Cryptocurrencies, with their anonymity, ease of conversion and cross-border nature, make crypto-asset trading a high-risk sector for money laundering and terrorist financing. Therefore, requiring crypto-asset service providers to implement KYC/AML using legaltech tools such as electronic identification, transaction behaviour analysis and data traceability is a concretisation of the current legal obligation, and is in line with the recommendations of the International Financial Task Force (FATF) on financial management of virtual products. The application of KYC/AML using technology also poses parallel requirements for ensuring cybersecurity and protecting personal data. The *Law on Cybersecurity 2018* and the *Law on Data Protection*, 'Decree No. 13/2023/ND-CP', oblige data processing organisations to apply technical measures to secure information and only process data to the extent necessary and with clear legal grounds. This shows that the State management of crypto-asset trading is not only focused on controlling cash flow and financial risk, but also aims to protect user privacy and data in the crypto environment.

The tax regime for crypto-assets during the pilot period follows securities tax regulations. Market participants must accurately and promptly disclose all transaction information. The crypto-asset issuer must provide accurate, complete and timely information to protect investors' legitimate interests. At least 15 days before the offering or issuance of crypto-assets, the issuer must disclose information on the Prospectus of offering and issuing crypto assets (Form No. 01) enclosed with the Pilot Resolution and other relevant documents (if any) on the organisation's website, etc. The issuing organisation must take full responsibility for the accuracy, truthfulness and commitment to properly implement the published information. The prospectus must include details of the rights and obligations associated with the crypto-asset, information about the risks associated with the underlying asset and technology, as well as other important information that may influence the investor's decision. CASPs must periodically report information to the Ministry of Finance, the State Bank of Vietnam, the Ministry of Public Security and relevant agencies on the situation of the crypto-asset trading market. CASPs must publish the audited financial statements on their websites within 10 days from the date the audit report is issued and report the irregular business situation. CASPs must make public the service tariff related to the crypto-asset business and may not add any service fees other than the published tariff.

3.1.4 Remedies and sanctions for violations

Resolution 05 establishes a framework for the management and supervision of activities related to crypto-assets and stipulates a mechanism for handling violations of law in this field. The application of sanctions is to be carried out on the principle of referring to current laws and specific management regulations prescribed by Vietnam's government.

The pilot resolution affirms that organisations and individuals that commit violations of the law related to crypto-assets and the crypto-asset market will be dealt with in accordance with the law, including handling administrative violations or criminal violations, depending on the nature and seriousness of the violation. The Ministry of Finance, as the agency in charge of managing the pilot market, has the authority to promulgate regulations on sanctioning violations of law and has the right to suspend or revoke operation licenses for organisations providing crypto-asset services where necessary. Specifically, for administrative violations in the field of crypto-assets and the crypto-asset market, sanctions have been proposed in the relevant draft decree, with the lowest fine for organisations being VND 50,000,000 (approximately EUR

1,615) and the highest fine for individuals being up to VND 2,000,000,000 (approximately EUR 66,000).

Regarding the sanctioning authority, the agencies with administrative sanctioning competence include the Chairman of the State Securities Commission, the Chairman of the Provincial People's Committee or the Chief Inspector of the State Securities Commission. Sanctions are also imposed for violations of important obligations to protect the financial system and national security.

The pilot resolution sets out specific sanctions and management responsibilities for CASPs due to the high-risk nature of this sector. Accordingly, CASPs will be subject to revocation by the Ministry of Finance in a number of serious violations, including failing to remedy the causes leading to the suspension of the provision of crypto-asset services within 60 days; as well as being required to resolve related disputes and compensate for damages in accordance with the law in case investors lose or reduce their crypto-assets due to security system failures, intrusions or fraud.

3.2 Smart contracts

Smart contracts play a crucial role in facilitating transactions and managing rights within the crypto-asset ecosystem, providing automated execution and enforcement of agreements between parties. Smart contracts are increasingly popular in today's digital economy; with that development, various legal issues have emerged. However, at present, Vietnamese law still does not have specific provisions to regulate this type of contract, but relies primarily on general provisions governing civil transactions and contracts specified in the *Civil Code 2015* (amended and supplemented in 2017).

First, as regards the legality of smart contracts, Vietnamese law defines contracts in Article 385 of the *Civil Code* as follows: "Contract means an agreement between the parties on the establishment, change or termination of civil rights and obligations." The nature of smart contracts also includes terms that are expressed in code or programming language through the agreement of the parties and are executed automatically. Comparing the definition of a contract under Vietnamese law and the nature of smart contracts, the authors found that although smart contracts have not been officially recognised for their legal validity in Vietnam, they can also be considered legal contracts.

Second, as to the validity of the contract. A smart contract is a civil transaction in nature, so it is necessary to satisfy the following conditions for the contract to be effective in practice:

- Subjects with civil legal capacity and civil act capacity in accordance with established civil transactions;
- Subjects participating in civil transactions are completely voluntary;
- The purpose and content of the civil transaction do not violate the provisions of prohibited law, contrary to social ethics;
- The form of civil transaction is in accordance with the provisions of law, if any.

Regarding subjects, according to Vietnamese law, those participating in civil transactions must have civil legal capacity and civil act capacity. However, the subjects of smart contracts display different characteristics compared to the subjects of traditional contracts. Unlike traditional contracts, the parties to smart contracts are often anonymous, a characteristic rooted in blockchain and distributed ledger technology. This anonymity makes it challenging for regulators to verify whether participants meet the civil legal capacity and civil act capacity required by Vietnamese law. The borderless nature of smart contracts complicates matters further; transactions occur across multiple jurisdictions, making it difficult to determine the legal status and responsibilities of the parties involved. Additionally, smart contracts operate automatically once deployed, leaving little room for traditional oversight or correction in cases of error or fraud. This autonomy increases efficiency but also creates legal uncertainty regarding accountability for breaches or unintended consequences.

Regarding the basis principle of formation procedure, civil transactions are premised on voluntariness and will be invalidated when the parties in that civil relationship lack intention. In this regard, smart contracts are implemented through a blockchain platform, so it is also a challenge to determine the intention of the parties to participate in the contract.

Determining the purpose and content of the transaction that does not violate the prohibition, contrary to social ethics, is a prerequisite for the validity of a civil transaction. For smart contracts, the terms are built and coded through code or programming languages, so it is difficult to control whether these terms are contrary to the provisions of the law or not.

Regarding the form of civil transactions, Article 119 of the *Civil Code* provides that “civil transactions conducted through electronic means in the form of

data messages in accordance with the *Law on Electronic Transactions* are considered written transactions.” In turn, Article 4 of the *Law on Electronic Transactions 2005* defines ‘data messages’ as information that is created, sent, received and stored by electronic means. When these provisions are read together, they provide a legal basis for recognising contracts formed and executed through electronic systems as satisfying the statutory requirement of written form.

Against this normative background, smart contracts—agreements expressed in computer code, created, transmitted and stored on electronic platforms, typically through distributed ledger technology—may be regarded as transactions conducted via data messages. Accordingly, notwithstanding their technical particularities and automated mode of performance, smart contracts can, in principle, be classified as written civil transactions under Vietnamese law. More broadly, an assessment of smart contracts against the general validity requirements of the *Civil Code* indicates that they may constitute legally binding contracts, provided that the essential conditions for validity of a contract are met.

In addition to considering the validity of smart contracts based on the criteria set forth in the *Civil Code*, this issue can also be considered based on the provisions of the *Law on Electronic Transactions 2005*. Specifically, according to the provisions of this Law, an electronic contract is a contract established in the form of a data message in accordance with the provisions of this Law and the legal validity of an electronic contract cannot be denied just because that contract is expressed in the form of a data message (*Law on Electronic Transactions 2005*, Article 33). Clause 7 of Article 4 of the *Law on Electronic Transactions 2005* also introduces the notion of automatic electronic transactions but does not mention the conclusion and performance of contracts through the use of automated information systems. Therefore, there is not enough basis to regulate and recognise the legality of smart contracts as contracts that are executed automatically through computer code.

Third, the issue of dispute resolution needs to be addressed. Current Vietnamese law does not have regulations on this issue, while there are still many legal questions raised around the resolution of disputes related to smart contracts, such as the identification of dispute resolution agencies, dispute resolution procedures or issues related to compensation for damages. These are issues that the entities participating in the smart contract are interested in because they are directly related to their rights and interests.

4. Conclusion

Vietnam's legal framework for crypto-assets has undergone a fundamental transition from prolonged regulatory ambiguity to cautious legal recognition. The enactment of the *Law on Digital Technology Industry 2025* and the introduction of the regulatory sandbox reflect a deliberate State strategy that prioritises risk management, market stability and regulatory learning while gradually accommodating innovation. By formally recognising crypto-assets as assets under civil law, Vietnam has laid an essential doctrinal foundation for future regulation. However, significant challenges remain, particularly regarding asset classification, ownership mechanisms, market access conditions and dispute resolution in cross-border contexts. Addressing these issues through clearer legislative guidance and institutional coordination will be crucial to ensuring legal certainty, investor confidence and the sustainable development of Vietnam's crypto-asset ecosystem.

Nguyen Phuong An is a lecturer at the Faculty of International Law, Ho Chi Minh City University of Law (HCMUL). She holds an LL.M. degree from the University of Bordeaux and an LL.B. (Hons) from HCMUL. Her teaching and research focus on public international law, the law of the sea, international investment law and technology and law. She is currently a PhD candidate at HCMUL, with her doctoral research examining the development of the legal framework for crypto-assets. In 2017, she served as a research fellow at the Faculty of Law, University of Lausanne and the Centre of Comparative, European and International Law (Switzerland). She is a member of the Vietnam Section of the Henri Capitant Association of Friends of French Legal Culture.

Nguyen Thi Minh Phuong graduated from the University of Paris II Panthéon-Assas, France, with a master's degree in international business law. She is currently working and doing research in the Faculty of International Law of the Ho Chi Minh City University of Law (HCMUL), Vietnam, majoring in public international law, environmental international law and the international law of the sea. She has been a member of the Henri Capitant Association of Friends of French Legal Culture.

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