ASIAN BOND MARKETS INITIATIVE BRIEF No. 12

INTRODUCTION TO THE DIGITAL BOND MARKET FORUM

OCTOBER 2025

About This Brief

The Asian Bond Markets Initiative (ABMI), an initiative of ASEAN+3, has been convening the ASEAN+3 Bond Market Forum (ABMF) and the Cross-Border Settlement Infrastructure Forum (CSIF) as platforms for dialogue between public and private sector institutions. These forums support the development of local currency bond markets; analyze and discuss market trends; facilitate knowledge-sharing and policy dialogue; share recommendations, including on digitalization and data transformation; and address challenges common to all regional market stakeholders.[1]

The Digital Bond Market Forum (DBMF) was initiated to specifically address subjects related to digital assets. The Asian Development Bank (ADB) acts as secretariat to ABMF, CSIF, the new DBMF, and the ABMI.

The ABMI Brief series provides insights into professional bond markets, their development, and necessary or desirable components to issuers, investors, market intermediaries, regulatory authorities and policymakers, academia, and other interested parties.

Individual briefs are dedicated to specific subjects discussed in ABMF, CSIF, and the DBMF, based on their relevance for domestic bond markets and the needs and interests of the forums' participants.

This ABMI Brief No. 12 introduces the DBMF, its purpose, and objectives; covers the discussions at the inaugural DBMF meeting; and details the proposed way forward for the work of the DBMF.

KEY TAKEAWAYS

- The Digital Bond Market Forum (DBMF) was proposed to foster regional financial integration and innovation in regional bond markets, aiming to help facilitate digital transformation in ASEAN+3.
- Policymakers and regulatory authorities recognize the significance of the emergence of digital assets, their inherent opportunities and challenges, and the need to formulate an adequate regulatory framework. Yet, each market in ASEAN+3 is developing its own legal and regulatory response and practices.
- Regulatory approaches may differ from simply applying the existing regulatory framework based on the nature of the digital asset, subject to specific classifications and treatment in separate laws. However, many jurisdictions intend to follow the principle of "same activity, same risk, same treatment."
- Coordination among different regulators is essential to break down regulatory silos and create a consistent approach to digital assets that often span multiple jurisdictions and regulatory coverage.
- The DBMF is expected to highlight the necessary considerations for a desirable digital ecosystem. As seen in Cambodia, emerging markets can leapfrog market infrastructure development.
- The DBMF aims to establish a common understanding of how to maximize the benefits, while minimizing the problems and challenges, identified at its inaugural meeting in February 2025.

[1] ASEAN+3 refers to the 10 members of the Association of Southeast Asian Nations (ASEAN) plus the People's Republic of China, Japan, and the Republic of Korea.

ADB

The Digital Bond Market Forum

Objectives

The DBMF was proposed by the Ministry of Economy and Finance of the Republic of Korea to foster financial integration and innovation in regional bond markets. Among the five pillars of the ABMI Medium-Term Road Map 2023–2026, "digital transformation" reflects a key strategy for developing and integrating ASEAN+3 bond markets. The DBMF acts as a collaborative forum for ASEAN+3 financial market stakeholders to (i) conduct research and facilitate knowledge exchange, (ii) develop potential business models, (iii) assess infrastructure and policy needs, and (iv) provide reports and recommendations.

To achieve the ABMI objective, the DBMF seeks to promote the integration of blockchain and distributed ledger technology (DLT) into regional bond markets, creating a digital asset ecosystem and enhancing efficiency, security, and accessibility. These efforts will also support financial institutions in advancing sustainable investments, particularly in the areas of green finance and environmental, social, and governance integration.

The DBMF complements the work of ABMF and CSIF under the ABMI. While CSIF focuses on developing the linkages between central banks' real-time gross settlement systems and the central securities depositories' book-entry systems to promote cross-border bond transactions, DBMF focuses on the wider uses of digital assets. While ABMF discusses technology with a focus on standardization, as well as the development of the bond market including the digital regulatory environment, DBMF focuses on DLT and blockchain.

By leveraging DLT and blockchain solutions, DBMF seeks to establish a regional digital platform that facilitates seamless cross-border transactions. Although the region's bond markets have made significant progress, intraregional transactions are still limited. These technologies can help DBMF constituents mitigate regulatory disparities and operational hurdles across the region. This should lead to additional intraregional transactions and, in particular, advance the professional bond markets or market segments within ASEAN+3.

DBMF Membership

Similar to ABMF, DBMF membership aims to include institutions and organizations that express their intent to join and demonstrate alignment with the forum's objectives. DBMF members include representatives from diverse sectors within ASEAN+3, including officials from central banks, finance ministries, and securities regulatory agencies across ASEAN+3. They also include representatives from central securities depositories (CSDs), relevant industry associations such as fintech and blockchain associations, and institutional participants (i.e., industry experts and stakeholders such as custodians and securities companies, fintech start-ups, and academic and research institutions contributing expertise in digital finance).

The Inaugural DBMF Meeting

The inaugural DBMF meeting was held on 10 February 2025 in Seoul at the Korea Banking Institute. Suk Hyun of Yonsei University was elected as the chair of DBMF. At the inaugural meeting, members shared what was happening in each market regarding digital assets and digital bonds. It became clear that digital asset regulation is still evolving as an emerging topic and is not being implemented uniformly across the region's markets; some jurisdictions already have regulations in place, others are in the process of implementing them; some markets are only at the beginning of this process. This ABMI Brief shares key takeaways from the inaugural meeting.[2]

Key Insights from DBMF Discussions

Policymakers and regulatory authorities recognize the emergence of digital assets, their inherent opportunities and challenges, and the need to formulate an adequate regulatory framework. This section summarizes the prominent issues arising from discussions at the inaugural DBMF meeting.

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[2] This ABMI Brief was compiled by Satoru Yamadera, formerly advisor to the Economic Research and Development Impact Department of ADB, and Matthias Schmidt, ADB consultant, based on representations by members and participants at the inaugural DBMF meeting as well as subsequent discussions among DBMF constituents. The DBMF secretariat team bears sole responsibility for the contents of this brief. ABMI publications are available for download from the AsianBondsOnline website; https://asianbondsonline.adb.org/.

The Early Stages of Digital Asset Regulations

A key realization was that each market in ASEAN+3 is developing its own legal and regulatory response and practices, with some authorities yet to establish a clear approach to regulating digital assets in their respective markets. This was evidenced in the different technical terms and definitions being used for individual digital assets. Some markets use more than one term for digital assets with the same or similar characteristics. Based on the representations of DBMF participants, markets may employ the term "digital assets" as a summary term. However, they tend to use "virtual assets" or "crypto-assets," as well as "crypto-currency," to describe digital assets. Sometimes two or more terms are used in the same jurisdiction, depending on the application and market segment. Other terms in use include "digital token" or "payment token." Specifically, in relation to the capital market, the terms "token securities" or "tokenized securities" are also used.

A market may follow the definitions of international regulatory bodies. However, as *ABMI Brief No. 7: An Introduction to Digital Assets* explains, a diverse range of terminology and classification is used by these bodies. For example, Bitcoin may be classified as a means of payment in one market or by one organization, while another market views Bitcoin as a type of security or commodity.[3] The regulatory approach may differ accordingly.

This variance indicates the potential risk associated with a different legal concept. To promote cross-border transactions, it will be necessary to check how similar or different the legal terminologies for digital assets are. Therefore, as the first step to promote cross-border transactions, the DBMF needs to compare the functionalities, acceptability, and licensing requirements of digital assets across different markets in ASEAN+3. Although it may not be possible to harmonize the legal concept of digital assets, the DBMF should be able to establish a common understanding of digital assets and digital bonds among regional stakeholders.

Limited Regulations in Place

Currently, only a few markets have established a legal framework for digital assets, although many jurisdictions are considering the enactment of new regulations or revisions to existing ones. Thus, information exchange through the DBMF is expected to facilitate a common understanding of how to regulate them.

Regulatory Approaches to Digital Assets

DBMF participants have shared the overall regulatory approach to digital assets in their respective jurisdictions. Regulatory approaches also differ by jurisdiction since the implementation must fit each market's legal system and regulatory framework, as well as established regulatory practices. Policymakers and regulatory authorities also take into consideration the level of development of the securities or capital market (bond market) and the preparedness of its participants.

The following sections will outline some of these approaches and provide guidance on how ASEAN+3 markets have chosen to address the emergence of digital assets within their respective legal environment, the status of market development, and prevailing practices.

The "Same Activity, Same Risk, Same Treatment" Approach

In the absence of a ready-made regulatory framework in most markets and the need to address the continuously changing nature of digital assets, a practical approach is being used in several markets. This approach—commonly called "same activity, same risk, same treatment"—enables jurisdictions to apply functional governance and expand their regulatory scope to digital assets simultaneously.

This approach is used in both common law and civil law jurisdictions, and it operates on the idea that the lack of standard definitions does not hinder regulation. Each digital asset is assessed and classified based on its intended underlying activities. For example, a digital asset used as a means of payment could be considered a payment instrument and regulated under existing payment rules. Correspondingly, a digital asset meant for investment or trading would fall under the jurisdiction of securities regulators and be treated according to securities laws and regulations. Similarly, market participants offering digital assets are evaluated by regulatory authorities to determine if they require licenses or qualifications for their activities, depending on the type of digital asset or the market activity involved.

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[3] *ABMI Brief No. 7: An Introduction to Digital Assets* is available for download from the AsianBondsOnline website; https://asianbondsonline.adb.org/publications/abmi-briefs/brief-7-introduction-digital-assets/.

For example, the Monetary Authority of Singapore regulates digital assets based on the underlying activities, in accordance with the existing Securities and Futures Act governing the capital market and the Payment Services Act. The Payment Services Act was amended only to reflect the nature of payment tokens; stablecoins are recognized as digital payment tokens and are regulated as payment services. At the same time, the Monetary Authority of Singapore does not regulate nonfinancial tokens.

This approach enables regulatory authorities to consider specific areas of regulation without needing to pass new, or amend existing, legislation. While this basic approach is frequently applied, the need for additional legal considerations and new regulations is often mentioned in the same context. Therefore, the DBMF may need to develop a shared understanding of the conditions that constitute the same level of activity. For instance, participants may need to discuss how digital transactions are either the same or different from conventional ones. Additionally, participants might need to examine the differences between dematerialization through centralized systems or existence of electronic registers and the presence of digital assets in DLT or blockchain solutions.

Overcoming a Regulatory Silo

Digital assets can be viewed as a means of payment, securities, or commodities, even within the current regulatory framework. This may lead to shared responsibilities among different regulators. For example, in Malaysia, Bank Negara Malaysia and the Securities Commission Malaysia jointly oversee digital assets. The central bank enforces regulations based on the Payments Act and related laws, while the Securities Commission Malaysia governs under the Capital Market and Services Act. Similarly, in Hong Kong, China, the Securities and Futures Commission and the Hong Kong Monetary Authority (HKMA) share oversight of digital asset activities. Since many other Asian jurisdictions have similar regulatory setups between securities market regulators and central banks, effective coordination and collaboration are essential for establishing a consistent approach to digital assets.

Expanding the Existing Dematerialized or Immobilized Infrastructure

The HKMA, as issuance agent for the Government of the Hong Kong Special Administrative Region of the People's Republic of China, has conducted a few pilot issues of digital bonds. The HKMA emphasized a linkage with traditional financial market infrastructure, including the use of the Central Moneymarkets Unit as legal recordkeeper as well as existing payment rails used by market participants. The utilization of market infrastructure such as the Central Moneymarkets Unit ensures the legal certainty of purchases and future entitlements, and it allows for the mirroring of investor records in the event of technology failure. This can be a good example of how the CSDs in ASEAN+3 can contribute to the development of the DLT and blockchain network. CSD participation can provide legal assurance if the same legal framework is applicable.

Opportunities to Use Technology to Leapfrog Market Development

The National Bank of Cambodia launched "Bakong" in 2019, a payment system based on blockchain technology. Bakong is a hybrid of an interbank wholesale payment system and a retail payment system. For retail customers, it appears as a standardized QR code payment, but it is the first large-scale implementation of DLT and blockchain technology in actual payments and settlement. In 2024, Bakong processed over 608 million transactions, valued at more than USD100 billion, more than 3 times its nominal gross domestic product. The number of Bakong wallets exceeds 3.0 million, and over 4.5 million merchants accept its QR code payments.

The success of the Bakong project demonstrates the potential of emerging markets to leapfrog market development. Since emerging markets do not have legacy systems in a manner similar to established markets, they can consider the best application of digital transformation. Discussions through the DBMF should be able to contribute to and accelerate the development by highlighting key legal and technological considerations for a desirable digital ecosystem.

Opportunities and Challenges

DBMF meeting participants also discussed the opportunities and challenges associated with digital assets in a series of presentations and panel sessions. The DBMF aims to establish a common understanding of how to maximize the benefits, while minimizing the problems and challenges, identified at its inaugural meeting.

Opportunities

Financial inclusion. Promoting digital asset transactions aims to increase financial access for the unbanked population and offer affordable investment opportunities through fractionalization of large-value assets, which are usually only accessible to the wealthy.

Transaction transparency. DLT- and blockchain-based digital assets can record transactions on the ledger. With a suitable digital ID system, digital assets become more transparent and traceable compared to current financial transactions. This can improve "know-your-customer" procedures and prevent money laundering and terrorism financing.

Cost reduction. Tokenized digital assets are expected to enhance programmability, which may significantly lower operational costs by automating various transactions. The benefits could increase further if tokenization is applied across multiple activities, including payments, distribution, bookkeeping, redemption, and other corporate actions—thus, creating a tokenized ecosystem. However, it is important to note that cost savings should not compromise regulatory objectives like investor protection. While digital assets often eliminate intermediaries, there may be reasons to retain a licensed intermediary to properly inform retail investors about the risks involved. Therefore, an additional mechanism to ensure proper due diligence and information provision needs to be integrated into automated transaction flows. Digital assets can reduce operational costs where transactions are standardized and programmable. Thus, digitalization must go hand in hand with standardization.

Challenges

Regulatory uncertainty. As mentioned earlier, the regulatory framework for digital assets is still evolving, which creates regulatory uncertainty. This could hinder the start of new businesses as investors may remain hesitant to invest.

Lack of regulatory coordination across boundaries. With proper system architecture and an appropriate ID system, digital assets can be made more traceable than existing financial transactions. However, better traceability does not mean they would be easier to control. Regulations are enforceable only within the jurisdiction where they are enacted, but it may be difficult to confine digital asset transactions to a specific jurisdiction because cyberspace and physical space are not the same. Regulators will find it difficult to exercise their regulatory authority over digital asset transactions if they occur outside their jurisdiction. There may also be regulatory arbitrage, where regulations are not set or enforced equally. In other words, effective regulatory coordination is essential for digital asset transactions.

Development of digital ecosystems. To maximize the advantages of digital assets, it is important to build a comprehensive digital ecosystem, including a digital ID system that links the cyber and real worlds, cash and asset tokenization to facilitate financial transactions in a digital form, robust cybersecurity to protect transactions, and a complete legal framework to provide legal certainty in digital transactions. While partial implementation of these elements might be possible, such efforts would not generate enough benefits to replace the current system. In particular, the legal risks involved with new digital transactions could remain a significant obstacle.

Capacity building and financial education. Newly formed digital assets may create unfamiliar problems that regulators, market players, and consumers might not recognize. Market-wide capacity building efforts and financial education would be necessary, keeping pace with the development of new digital assets.

Next Steps and the Way Forward

There might not be a single regulatory approach applicable to digital assets in all ASEAN+3 jurisdictions, given the differences in legal frameworks and stages of market development. However, due to the transboundary nature of digital assets and the large potential for intraregional digital asset transactions, the following points are noted to facilitate future DBMF discussions and produce desirable outcomes.

Trustless Crypto-Assets and Consortium-Chain Tokenized Assets

Although there is no consensus yet on how to address issues related to digital assets, there seems to be some shared understanding of how to regulate them. The regulatory approach to trustless, permissionless crypto-assets like Bitcoin seems to differ from that for digital assets, which is based on using permissioned private or consortium blockchains to tokenize existing assets or link with the current legal framework. Trustless crypto-assets are built on a system where the holder of the private key has exclusive control over the assets, without authorization or permission from others, using an embedded consensus algorithm. Transactions are secured and verified using cryptographic techniques, making them resistant to tampering. Since they are trustless by design, it does not require the involvement of trusted parties or authorities.

These embedded characteristics may create difficulty for regulators, as participants in the DLT or blockchain network may be outside of their respective jurisdictions since it is open to anyone. In contrast, tokenized assets on private or consortium-permissioned chains are expected to be connected to the existing legal framework and rely on trust among network participants with an authorized mechanism. In this system, transferring ownership depends on the expression of will and intent, meaning that merely holding the private key may not establish legal ownership sufficiently, and the DLT or blockchain acts to ensure entitlement and traceability. Regulators may feel more comfortable with this approach than a trustless system because they can see the linkage with the existing legal framework and may also exercise their regulatory power by regulating the limited network participants.

For digital transactions to be considered by the DBMF, the focus should be on the latter approach. Digital assets, as considered by the DBMF, should be based on a trusted network of entities—including licensed financial institutions, central banks, CSDs, and regulators—to ensure legal certainty and proper regulatory oversight. Especially in the context of cross-border digital asset transactions, it is beneficial to focus on tokenized digital assets linked with the existing legal framework. This approach can be more predictable than creating a new cross-border financial transaction. Since intraregional financial transactions in ASEAN+3 remain limited, it is better to provide a certain level of assurance to the regulators.

Developing a Comprehensive Digital Ecosystem

The DBMF should focus not only on developing concepts and use cases for digital bonds but also on establishing a comprehensive digital ecosystem. This ecosystem should include a digital ID system, digital payments, digital offering and distribution, bookkeeping, and other corporate actions, as well as a legal framework for accepting digital records. While it is challenging to implement all aspects simultaneously, designing a tokenized ecosystem holistically is preferable. For example, it is important to consider how the growth of stable tokens might influence the development of tokenized securities. Discussions within the DBMF about digital assets should cover digital payments and digital securities to promote a more integrated and coordinated digital environment across the region.

The DBMF is expected to hold two meetings each year back-to-back with ABMF and CSIF, allowing members and interested parties to maximize their involvement in due to their relevance to traditional bond market issues. market visits to advance specific tasks or areas of interest identified during DBMF discussions. Some topics raised in the DBMF may also be addressed by ABMF and CSIF due to their relevance to traditional bond market issues.

About the Asian Development Bank

ADB is a leading multilateral development bank supporting sustainable, inclusive, and resilient growth across Asia and the Pacific. Working with its members and partners to solve complex challenges together, ADB harnesses innovative financial tools and strategic partnerships to transform lives, build quality infrastructure, and safeguard our planet. Founded in 1966, ADB is owned by 69 members—50 from the region.

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