



Review of Regulation on Improving Securities Settlement in
the European Union and on Central Securities Depositories

CSDR and technological innovation

General comments to the European Commission

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Adan is thankful to the European Commission for allowing the expression of industry players in this consultation. The Association's objectives are to help create the more favourable environment in the EU for the development of a crypto-asset industry competitive with other regions of the world.

Crypto-assets are improving the existing economic infrastructure worldwide, creating new businesses, helping financial inclusion and providing novel exchange opportunities for both public and private actors. Markets in crypto-assets reflect the growing awareness around such opportunities and the significant traction gained over the last years: the size of tokenized assets markets is estimated to reach 1.4T€ by 2024¹.

The European Commission decided to make financial innovation one of its key priority regarding the importance of making Europe fit for the digital age². As part of the European Union's "Digital Finance" strategy released on 24 September 2020, the European Commission is proposing the creation of a pilot regime for financial instruments issued and traded on blockchain networks ("DLT transferable securities" or security tokens): this transitional regulatory mechanism would (i) allow, along a predetermined period and under conditions, infrastructures to benefit from targeted exemptions of certain requirements imposed by European regulations that are identified as incompatible with technological features of security token activities or not proportionate regarding some obliged entities and (ii) help adjust and build the definitive framework for security token markets based on such experimentation.

This is a significant step in the way of achieving the EU's goal of promoting financial innovation and stopping lagging on the development of the crypto-assets industry behind Asian countries and the USA³. Indeed, to be attractive and competitive, the EU must implement harmonized rules for these new markets, but also make the regulatory frameworks and supervisory practices more agile. For years many European actors - both crypto newcomers⁴ and significant financial institutions like Société

¹ Source: [Plutoneo Consulting](#)

² Ursula Von der Leyen Proposed Program A *Union that strives for more* - political guidelines for the next European Commission, 9 October 2019

³ The 10 unicorns in the sector are incorporated there, and large-scale operations are happening in those jurisdictions. As an example, the HSBC-Singapore Exchange-Temasek (owned by the Singaporean State) partnership recently successfully executed a \$294 million bond issuance on blockchain.

⁴ In a recent survey conducted notably by the French professional association ADAN, 42 companies reported that they were implementing security token projects, among them: Equisafe, Société Générale – Forge, GT Equity, Kaiko, OFI, Tokeny and

Générale - are on the sideline, waiting for regulatory clarity to contribute to the growth of security token markets. The launch of the pilot regime would release the energy and the creativity of the next European unicorns.

To this end, the CSDR review must be part of this dynamic and support coming efforts to let the EU embrace innovation by appropriate and proportionate adjustments.

Why should post-trade infrastructures consider decentralised innovations?

Thanks to the great benefits of tokenization in the current functioning of financial markets and market infrastructures, **blockchain technologies and crypto-assets are opportunities to improve the efficiency of the whole financial system:**

- **Digitalisation.** Tokenization can prompt generalization of paperless financial instruments then automation of many processes. This constitutes a good starting point to reduce operating errors due to manual processing, then the global costs of human errors, and to increase efficiency.
- **Automation.** The smooth functioning of financial markets is based on many record-keeping held by various parties. Automation through smart contracts would help manage them and guarantee continuous and right reconciliations among them.
- **Transparency and trustworthiness.** Smart contracts enable the automatic execution of operations when (and only when) all conditions are met, as these conditions are initially encoded in the smart contract. All authorized parties can access the ledger to check which operations have been executed, and smart contracts to verify how they were programmed. This is a substantial confidence enhancer for all interested parties, from counterparties to transactions, business partners to regulators if they wish to use blockchain in their supervision missions.
- **Traceability.** Traceability of transactions is a very strong attribute of public blockchain-based use cases that can bring benefits to various transactions executed on blockchain at the stage of execution, but also and especially after the execution stage. It has already been proved extremely useful to audit blockchain-based application behaviours after bugs or exploitation, to monitor the evolution of a specific service, or to analyse major transaction flows that help better understand the structuring of blockchain-based use cases.
- **Liquidity.** Tokenisation can boost - or even create - liquidity for some intrinsically illiquid assets. This can cover shares that are not traded on secondary markets, venture capital and real estate industries. Consequently this reduces liquidity risks, promotes the movement of capital, hence enhances a more efficient allocation of resources within the real economy.
- **Privacy.** Blockchain networks offer an interesting mix of features that make them suitable for both institutionally-backed and community-supported applications. Accounts are pseudonymous, which allows each user to maintain a certain level of privacy, while at the same time, all the transactions are publicly recorded, allowing for reliable auditability (see Transparency). In addition, cryptographic primitives allow, when required and even for the most

WeFundia. More details on their activities can be found in the synthesis report: https://pages.adan.eu/rapport_security_tokens_cadre_europe_en

open systems, to support higher levels of privacy, and notably, making some transactions entirely private

- **Cyber-resilience.** Distributed ledgers are the “golden source” of the data kept in a decentralized way so no central point of failure can be identified in the context of cyber-attacks. This is a very substantial benefit for crucial activities that financial ones are, even more when they pose a systemic risk to financial stability. It should be noted that there is a positive relationship between the number and diversity of participants (decentralisation) on a blockchain network and its resilience to cyber-threats and breaches.
- **Open source innovation.** “Public” blockchain networks are open source projects, developed by a large and expert community which continually strives to improve protocols and their functionalities, develop innovative use cases and resolve issues. Code repositories and their version histories are freely available and usable on dedicated developer platforms such as GitHub. This provides excellent efficiency in permanently addressing the needs of end-users and project holders – prompting the creation of standards and ensuring a steady stream of ideas and innovation.
- **Available technological ecosystem, interoperability and composability.** “Public” blockchain networks have become proven technologies. An entire ecosystem of tried and tested technological building blocks (e.g., standards, applications, infrastructure, developer tools) are readily available for anyone to use. Such components may also be combined to create advanced use cases. To this end, open blockchain networks induce considerable time and cost savings and facilitate value-added synergies.
- **Support for the real economy.** Trustworthiness, optimisation and acceleration of processes, disintermediation, etc. eventually allow small and medium businesses to access cheaper and easier financing. In the current economic context, it is of the uppermost importance that the real economy as a whole benefits from simple, affordable and fast funding tools whatever the maturity level of each actor. As traditional entities cannot always bring their financial support, innovative methods should be promoted to take it over.

Using blockchain technologies and tokenisation, **the settlement of transactions in financial instruments could technically be executed under two possible scenarios:**

In a centralised model, actors would only bet on blockchain technologies for being secure ledgers but not rely on the advantages of tokenization. Registries of financial instruments and settlement assets would be held by traditional intermediaries. Access would be restricted to the holders of these assets, their account keepers and a notary public. This latter one escrows the assets until the transaction is concluded. When the parties agree on the terms and conditions of the negotiation, he asks account keepers to update their registries. Under such a scenario, financial instruments are not tokenized.

But a most efficient approach would be the decentralised one. According to this model, a smart contract escrows tokenised financial instruments and settlement assets until both players confirm - independently of each other - the conclusion of their transaction. The contract then automatically triggers the trade of assets. However, if the smart contract does not receive confirmation from both parties because they do not agree on the terms of negotiation, or receives conflicting information from them, each party can request to get back their assets (the financial token to the seller, the settlement asset to the buyer).

There are substantial benefits of using blockchain technology for the settlement of transactions in financial instruments, and all the more important in a decentralised model. First, more efficient reconciliation of information between market participants, with less risk of error thanks to automation via smart contracts. Second, faster processings between the execution and settlement of transactions thus mitigation in settlement risk. Third, enhanced transparency of information all along the intermediation chain. Fourth, strong guarantees regarding the compliance of operations with regulations and the mitigation of counterparty risks. Finally, optimisation of existing arrangements thanks to smart contracts, such as the exercise of shareholders' rights.

CSDR raises some obstacles to post-trade tokenisation

In the consultation paper, the European Commission states that they cannot not specify the obstacles that some CSDR rules create for the use of blockchain technologies and the tokenisation of financial instruments. However, both **ESMA** in their [Advice on ICO and crypto-assets](#), the French financial regulator (the **AMF**) in their [Legal analysis on the application of financial regulations to security tokens and precisions on bulletin board](#) and **Adan** have already identified such stumbling blocks:

- Clarifications are expected whether some crypto-asset platforms, or even blockchain protocols, should qualify or not as “securities settlement system” (SSS) or “settlement internaliser”. Such hypotheses were raised by ESMA but have never been substantiated since then.
- Under certain scenarios (e.g when financial instruments are traded on trading venues, or transfered for financial collateral arrangements), the SSS requires to be operated by an authorized CSD. Assuming that crypto-asset platforms or blockchain protocols qualify as SSS, this raise concerns in the case of decentralised infrastructures (decentralised exchanges - DEXs - and “public” blockchains respectively) where there is no legal person operating the DEX or the open network.
- Participants to a SSS must be regulated entities. However, benefits attached to blockchain technologies helped implement a different functioning of markets in crypto-assets where participants can be and are primarily individuals.
- Some national laws pose restrictions to the method used by issuers to record securities in book-entry form, based on criteria from recital 11. Legal certainty is crucial to actors wishing to develop on security tokens, that is it should be widely acknowledged that blockchain technologies would not imply any loss of rights for the holders of securities and would enable holders of securities to verify their rights at any time.
- Finally, rules on cash settlement do not allow for the use of any settlement asset issued and usable directly on blockchains. This is one major issue that limits the full processing of transactions on blockchains and prevents market participants from benefiting from their advantages. In the [Adan-AFTI-AMAFI-Gide255 report on Security tokens](#) published in July 2020, more than 90 % of survey participants claimed for allowing stablecoins to be used for settling the cash leg of transactions on security tokens, or for the creation of a digital euro. It has to be noted that since 4 January 2021, [the Office of the Comptroller of the Currency \(OCC\) authorises national banks and federal savings associations to use stablecoins to conduct payment activities and other bank-permissible functions](#).

However, this list of issues must not be assumed to be exhaustive.

The CSDR review should help rationalise the framework applicable to on-chain settlement of financial instruments

Questions asked in the consultation document focus on identifying particular issues raised in CSDR because of the specific technical features and functioning of crypto-assets. **This is one line of attack but this can be the main one.** First, innovation is moving constantly so questions and answers should too: not all stumbling blocks in CSDR can be identified as of today. Second, as other legal obstacles hamper the development of security token markets (especially regarding secondary markets - MiFID2), it is likely that additional deadlocks in CSDR will be experimented when innovation will no longer be limited by MiFID2 grey areas.

That is why the CSDR review should not only, in a short term vision, resolve legal obstacles due to incompatibilities with the functioning (they cannot all be anticipated) but also consider, in a long term vision, how blockchain technologies and crypto-assets meet the objectives set by financial regulations in order to adapt and rationalise CSDR rules permanently and efficiently. If blockchain technologies and tokenization find another way to achieve such objectives, regulations should adapt not to hinder their potential for innovation.

To this end **a purpose-based regulatory approach** would be better adapted in order to **determine necessary legal adjustments** for security tokens based on guarantees brought by the technological features of blockchain rules (please refer to the liste above) and **optimise rules** thanks to blockchain benefits. The relevance of this proposed methodology can be illustrated through two examples:

- Individuals are granted direct access to crypto-exchanges and are not intermediated by any middleman. This allows faster transactions and cost-reduction (especially regarding brokerage fees). When trading tokenized financial instruments, the opportunity to involve the same intermediaries as for traditional financial markets should be questioned regarding the additional guarantees in terms of security, liquidity, transparency, etc. brought by blockchain technologies and the opportunity to encode rules for market participants in smart contracts.
- If recital 11 of CSDR states that the recording of securities in book-entry form aims at "increasing the efficiency of settlement and ensuring the integrity of a securities issuance", regulators should assume that the use of open blockchain networks is fully compatible with such requirements (please refer to the liste of specific benefits explained above). Therefore adjusting this rule to allow the recording of securities in distributed ledgers rather than in book-entry form - when such ledger meet appropriate conditions that could be set in CSDR - seems logically acceptable.

Obviously optimising the current regulatory framework for market infrastructures must be associated with all new required and useful guarantees allowed by innovation. To this end, regulators could capitalise on smart contracts opportunity enabling to automate conditional behaviours by encoded adequate counterparts to legal adjustments (insurance, guarantees, etc.). New blockchain tools can also be very relevant to provide for necessary guarantees (blockchain analytics, smart contract auditing, dedicated insurance, etc.).

Conclusion and recommendations

Blockchain technologies and crypto-assets are opportunities to improve the efficiency of the whole financial system while complying with the crucial requirements that motivated the establishment of financial regulations: investor protection, financial stability, smooth functioning of markets and market infrastructures. However **the way to achieve such objectives is sometimes different as this relies on the new benefits brought by technological innovations.**

The European Commission has engaged several positive steps to better consider the crypto-asset innovation, from the pilot regime proposal to the dedicated focus within the CSDR consultation. Nevertheless it is not surprising that “potential solutions or proposals to address them in the framework of CSDR in order to ensure the full potential of these technological innovations with regard to the settlement of securities” must still be explored. To this end, **the two-sided approach proposed above should be implemented to identify obstacles but also opportunities to rationalize the current CSDR framework.**

The CSDR review led this way should coordinate with the pilot regime roadmap. This pilot regime is a positive starting point but efforts should be maintained to refine this proposal and make it more flexible. At this stage, possible experimentations and exemptions are very restricted. It is crucial to open this scope to be able to expand it following the pace of innovation. For more details, [Adan conducted a deep analysis of the pilot regime and suggested some improvements](#) in the context of the European Commission’s feedback period closed in January 2021.

Finally, not to hinder the growth of the EU industry of crypto-assets and to remain in the hunt on the international competition stage, **it is crucial to engage regulatory clarifications and enhance legal certainty for actors as fast as possible** according to the EU legislative process. The OCC is already paving the way to the development of new banking and financial activities thanks to decentralisation. **If the US “[relies on \[their\] innovation sector](#)”, the EU should probably too.**

Adan is available for any question and further discussions related to this paper.