

Leveraging DLT in the securities market



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How can the EU take full benefit from the development of blockchains and smart contracts?

With distributed ledger technologies and smart contracts, we are moving to the next level of Internet: the “Internet of Value”. What the Internet has made possible for information transfers now seems possible for value transfers, i.e.: virtually free, almost instantaneous, anytime, cross-border, secure exchanges of any type of value: virtual currencies, loyalty points, coupons for future services, representation of physical goods. In

recent months, we noticed a growing interest in the representation and transfer of securities.

DLT present a number of benefits for the competitiveness and integration of EU securities markets. On the issuance side, digitalisation or “tokenisation” could reduce the total cost of the transaction and facilitate the exchange of illiquid assets. It could also allow the emergence of new asset classes and facilitates cross-border trading. On the secondary market side, the use of DLTs and self-executing contracts (smart contracts) eliminates the need for reconciliation, which can reduce back office costs by a factor of up to 3. Finally, the direct publication of financial information on the blockchain network makes it possible to carry out almost instantaneous transactions between two counterparties compared to the two business days required for traditional settlement. Automation of back-office processes (settlement, cash flow payments, etc.) would also be possible for repurchase agreements, margin calls on derivatives and the exercise of options, thanks to the use of smart contracts.

As a regulator, it is our duty to be aware of these changes and possibilities and to ensure that our regulatory frameworks remain appropriate. These frameworks must allow us to manage risks and protect users effectively, without losing the benefits of innovation. Against that background, the AMF examined the legal obstacles to the development of security tokens that mainly stem from EU regulation and presented its analysis in a recent paper¹.

To overcome these obstacles, we recommend the creation of an « EU digital lab » allowing national competent authorities (NCAs) to

remove, in return for appropriate safeguards, certain requirements imposed by European regulations and identified as incompatible with the blockchain environment, provided that the entity benefiting from this exemption respects the key principles of the regulations and that it is subject to increased oversight by its NCA. The AMF also published a position to clarify the notion of trading platforms and bulletin boards.

Where tokens do not qualify as financial instruments, pending the creation of an EU framework, the French “PACTE law” adopted in 2019 introduced in France an optional visa regime for fundraising in crypto-assets (ICOs) and an optional license regime for digital assets service providers (DASPs) supplemented by a mandatory regime that imposes to DASPs due diligence in the fight against money laundering and the financing of terrorism. Only crypto-assets that are not considered as financial instruments are eligible to these regimes. The creation of these new regimes and interaction with numerous professionals for two years before the law was passed has helped us improve greatly our understanding and develop specific and more tailored requirements. As for the implementation, the AMF gave its first optional visa for an ICO in December 2019, and some players have expressed interest in the DASP optional framework. The two first DASP registrations were granted mid-March. It is too soon to learn all the lessons, but we are convinced that only a bespoke, flexible and attractive framework can work at this stage for the European Union. ●

1. See : <https://www.amf-france.org/en/news-publications/news/legal-analysis-application-financial-regulations-security-tokens-and-precisions-bulletin-board>

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Embracing the DLT (r?)evolution

Over the past years, DLT has emerged as an important piece of technology that promises to transform capital markets by delivering a real-time, transparent,

Peer-to-Peer (P2P) and inclusive experience. It enables a real-time view of activity and positions across a business network. Making it possible to detect, assess and react faster to threats and opportunities. Participants can share and trust in a single source of truth, increasing transparency and reducing reconciliation. Because of its distributed nature, participants can directly hold and transfer value in a P2P manner, but still retain the possibility to be serviced by a third party without mediation of information or network. This allows for greater direct inclusion to capital markets.

Inspired by this promise, a number of the DLT based PoCs have now moved to a project phase and aim to go live soon. Post Trade FMI's & intermediaries also fully acknowledge this transformative potential. Hence, they have not been a passive observer and have already launched dozens of projects with DLT or invested in FinTechs for use cases related to issuance, settlement, asset servicing, funds distribution, collateral management etc. The journey for most industry initiatives, however has been a very long and arduous one and the path to mass adoption ►



► is not yet obvious. It is clear that the mere use of DLT is no longer a sufficient condition to expect success.

“Will DLT introduce additional risks and costs?” or “Will it deliver benefits materially beyond what we have today?” are questions that often get asked, but the answers are not obvious. For example, DLT instant settlement does reduce counterparty risks

but also increases liquidity costs with no netting and pre-funding before trade-execution. Similarly, decentralization brings with it significant governance and legal risks. And participating on a DLT network isn't cheap. Not everyone can afford the node setup, licensing fees, upskilling efforts etc.

So when seen in context of EU capital markets that have gone through an era of transformation to deliver market-wide efficiencies, lower risks, greater legal certainty and interoperability, the material benefits in return for undertaking such costs and risks are not always apparent.

Meanwhile market actors assess whether such goals of efficiency, transparency etc. could be more easily achieved using other new technologies such as AI, Robotics, API and Cloud.

While such questions will possibly get ironed out over time by lowering costs, skilling more staff, etc. what certainly is required at this stage is greater legal and regulatory certainty. An EU-wide legal

classification and a technology neutral regulatory framework is thus an important first step to support market adoption. Moreover, it is important that regulators take a “substance over form” approach leveraging existing safe & robust regulatory and risk frameworks, but applying them proportionally to allow innovation to thrive.

“// The path to industry-wide adoption of DLT isn't yet obvious. How can regulators and market actors help the industry embrace in its future evolution?”

Such logical supportive steps from both public authorities & market actors will help the markets embrace the DLT evolution rather than impede its radical revolution. FIMs, given their decades experience in driving safety and efficiency and their committed experimentation will certainly be key enablers in this journey. ●

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Slow down to speed up: DLT reaches potential through collaboration and standardisation

The technology adoption life cycle – often referred to as an S-curve – has four stages – innovation, syndication, diffusion and substitution – and there is also usually a period of hype early on, when a new technology is introduced.

Distributed ledger technology (DLT) is sitting firmly in the syndication phase, during which technology is demonstrated and a small portion is commercialised, with the potential for immediate utilisation. True to a typical technology

life cycle, DLT did experience the intense hype phase, however recently, the industry has taken a more considered position as to how it may benefit financial services. That said, for DLT to be accepted more widely in financial markets, certain areas need to be addressed.

“// The industry needs a standardised approach to security to ensure the integrity and availability of an organisation's DLT operations.”

A key issue is security. As addressed in our recent whitepaper, Security of DLT Networks, the industry must develop a comprehensive and standardised approach to security to ensure the confidentiality, integrity and availability of an organisation's DLT operations. There is no ‘one size fits all’ approach but there is an optimal model: the development of a reliable and comprehensive industry-approved framework. A critical component of this framework is the development of industry standards,



which enables interoperability between multiple DLT implementations and therefore reduces risk and cost for market participants by preventing a fragmented industry eco-system.

DLT standards would also facilitate the sharing of information between market participants and vendors, which would improve understanding of the benefits and risks of the technology, knowledge ►

► likely to the speed up adoption. Standards can help with other critical security issues such as data governance, which often delays the implementation of new technologies such as DLT. Via the development and adoption of a principles-based framework, firms are better able to identify potential weaknesses in their DLT projects. Further, a universally accepted framework will provide regulators with a consistent approach to assessing the potential strengths and weaknesses of different DLT implementations.

Effective and efficient collaboration between relevant stakeholders - clients, regulators and vendors - is another benefit

of developing standards that is critical to the successful implementation of DLT. For example, it is important that the industry collaborates with policymakers to ensure that the case is well-made around how new technology implementation can safely serve the public, as well as the clients and the industry.

Regulators and policymakers must consult and collaborate on new technologies, such as DLT, at the global level to better understand how the technology can improve the functioning of financial markets without putting safety at risk. Standard setting bodies (SSBs), such as the Financial Stability

Board and IOSCO, have an important role to play in that process.

Now that the initial excitement about DLT has died down, it remains clear that the technology holds potential value for the industry. Benefits include, processing efficiencies, operational capacity and scalability, as well as maintenance of data integrity. In order to realise this value, there must be a standardised approach to DLT security via a comprehensive framework most effectively achieved through collaboration between the industry, market infrastructures, policymakers and vendors. ●



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Tokenised securities and the future of settlement

Distributed, “tokenised” securities could be the future

For years, financial authorities have warned the general public about cryptoassets’ severe price volatility and consequential lack of safety. Yet the underlying distributed ledger technology (DLT) could have useful applications. Although cryptoassets and stablecoins focus on creating new types of money

and means of payment, another area being explored is for securities and their settlement (Bech et al (2020)).

Today, most securities are book entries, with their ownership electronically recorded at some entities. The most common setup is an indirect holding system, where an intermediary (such as a custodian bank) holds securities on behalf of its clients with central securities depositories (CSDs). This arrangement, where securities are transferred through “book entries” across accounts at a CSD and intermediaries, minimises the management of information by CSDs, yet also fragments ultimate ownership records. This can add complexities and costs for end users.

The technology underlying cryptoassets could help through “tokenisation”. A number of projects around the world are transforming securities into digital tokens – representations of value not recorded in accounts. This would mean that, in the future, equities and bonds could exist on distributed ledgers held across flat networks of owners. This could make ownership records more transparent and settlement much faster.

Yet tokenisation is not that simple

If this sounds too good to be true, it is. Not only are there technological challenges to tokenising securities, but serious trade-offs in the management of risks. Although ownership records can be distributed with DLT and some functions automated with “smart contracts”, transactions still

need to be validated and updated by all parties, rather than centralising these processes at CSDs and big intermediaries. Intermediaries do not just play a purely operational role either; they smooth trade flows and provide credit, making settlement more efficient overall.

Faster settlement is not without its challenges, or costs. A traditional settlement cycle (eg T+1 or T+2) allows more participants to trade and reduces the amount of securities that market-makers need to store in inventories. Faster settlement could also increase the likelihood of trades not settling, resulting in time and effort resolving disputes about failed settlements.

“The more open and interoperable a tokenised securities system can be, the better.”

And the future is likely to see a transition, not a big bang

Tokens and DLT offer a number of benefits for securities, but they come with costs. It is therefore very unlikely that a large-scale coordinated move will take place any time soon, or simultaneously. Therefore, as new assets and securities become tokenised, they will need to interoperate with existing account-based cash and securities systems. The more open and interoperable a tokenised securities system can be, the better. ●