# ASSET TOKENIZATION

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# / Foreword

Asset tokenization constitutes a relatively new process. Yet, it has been receiving increasing levels of attention across several jurisdictions, with positive indications as to its ability to revolutionize the way different assets are held, traded and used.

The process of tokenization involves the fragmentation of tangible (e.g. houses, cars, art work) or intangible (e.g. bonds, shares, participation rights) real world assets into digital tokens, which ascribe to their holders a unit of ownership or some other right to those said assets. A token itself essentially constitutes an algorithm which is applied as a Smart Contract on a Blockchain.<sup>2</sup> This Smart Contract will specify the owners and the amount of tokens they hold, and will provide for the Token's characteristics, such as its monetary value, the number of tokens

in existence, the methods in which they can be traded, how voting arrangements are to be carried out and so on. A Blockchain will be used to host these transactions, by recording them in interconnected blocks, a process which is well-known for being very hard to tamper with. Even so, in light of the increasing complexity and volume of the processes and rights that ascribe to these tokens, regulators and supervisory authorities have taken note of this phenomenon and the need to provide for a legal framework that addresses its effects.

This report will draw on the opportunities that asset tokenization presents, along with the legal challenges for the actors involved. Lastly, it will discuss the stance that different jurisdictions have taken so far to welcome tokens into their economies.

<sup>&</sup>lt;sup>1</sup> Smart contracts are self-executing computer codes that automatically carry out functions once a triggering event has taken place. It is a linear contract that can include multiple parties (buyer, seller, banks, insurance companies, etc.) and that cannot be altered -"Applying cryptotechnologies to Trade Finance Information Paper EBA Working Group on Electronic Alternative Payments Version 1.0 May 2016".

<sup>&</sup>lt;sup>2</sup> A Blockchain is a software application that comprises a continuously growing list of records, called *blocks*, which are linked and secured (ie. *chained*) together using cryptography. Each block typically contains a cryptographic hash of the previous block, a timestamp, and transaction data. Data in a block cannot be altered without changing all subsequent blocks - *European Banking Authority*, Opinion of the European Central Bank, 12 October 2016.

# / Benefits

Tokenization presents the opportunity for a more efficient and inclusive financial world by significantly diminishing the friction involved in the process of creating and dealing with securities. The benefits that asset tokenization may bring in the world economy can be manifold. They involve operational efficiency, greater liquidity in the market, larger access to investments and improved transparency in transactions.

# Operational efficiency: faster and cheaper transactions

Firstly, tokenization provides for a single source of data. Currently, companies obtain a large and often unmanageable amount of data for each asset. However, it has become increasingly challenging to manage and connect data points such as IP rights, licenses, ownership to particular products. This results into the fragmentation of the data received and makes trading increasingly intractable and expensive. Blockchain technology enables companies to share information about assets that are being transferred



globally and allows businesses to share and interact within a common ecosystem on the digital representation of an asset. Hence, automating and simplifying the process for high-volume trading through the use of Smart Contracts.3 Since the transaction of tokens is completed through Smart Contracts, the automation reduces the administrative burden involved in transactions and alleviates the need for any intermediaries. Simple send/receive transaction settlements can be automated. permitting for fast and even instantaneous transactions in cases where days would normally have been needed to complete them. This digitalization and automation of manual work, along with the reduction of need for compliance work, also reduces inefficiencies. Moreover, by sharing the infrastructure between all parties and without necessitating the involvement of a central third-party, the administrative burden is minimized, and transaction costs are meaningfully reduced. Ultimately, the market becomes more efficient and the way assets and services can be exchanged is optimized.

# Assets fractionality: greater market liquidity and inclusivity

By permitting the fractionalization of assets and by owning and executing activities over only a portion of an asset, Blockchain enables greater market liquidity. For example, by tokenizing assets, especially illiquid assets such as fine art or real estate, the issuer may choose a secondary market to trade his tokens. This access to a wider base

<sup>&</sup>lt;sup>3</sup> Darko Stefanoski, Orkan Sahin, Benjamin Banusch, Stephanie Fuchs, Silvan Andermatt, Alexandre Quertramp Tokenization of Assets, Decentralized Finance (DeFi) (Volume 1) Spot on: Fundraising & StableCoins in Switzerland, EY, 2019.

<sup>&</sup>lt;sup>4</sup> Patrick Laurent Partner | ACG Leader & Innovation Leader. "The Tokenization of Assets Is Disrupting the Financial Industry. Are You Ready?: Deloitte Luxembourg: Inside Magazine." Deloitte Luxembourg, 14 Nov. 2018, www2.deloitte.com/lu/en/pages/technology/articles/tokenization-assets-disrupting-financial-industry.html.



of investors through Blockchain fosters greater liquidity and supports inclusive finance by enabling a larger share of people to invest and buy assets. Investors have more freedom of choice and sellers of the tokens benefit from "liquidity premium", capturing greater value from the attached asset.<sup>4</sup> Therefore, freedom of investment along with ease and speed of transactions allows a greater personalization and customization in investments.

Turning to inclusive finance, investment opportunities used to be restricted due to geographical and infrastructural issues or due to high minimum investment requirements. With tokenization, access to financial markets and the various newly unlocked assets is sanctioned. notwithstanding the location of an investor and with lesser minimum capital thresholds. Fractionalized assets also present the concept of shared ownership. Since tokens are highly divisible, buyers can purchase tokens of a very small percentage over an asset. Therefore, multiple people may buy an asset and use it together. This is most evidently applicable in real estate, where a house can be shared-owned and used. Indeed, it has been foreseen that tokenization may unlock trillions of euros in illiquid assets and immensely increase the volume of trade.<sup>5</sup>

## Transparency

All transactions on a Blockchain structure are by default accessible to all its members. Hence, security tokens may have the tokenholder's rights and legal responsibilities embedded directly onto them. Therefore, tracing of ownership for physical assets is easier as any user may review the chain of actions performed on the asset, ensuring good title ownership and enabling the identification of fraudulent use. This may prove helpful in art authenticity and title disputes, as well as restoration efforts particularly regarding looted art; an issue that has troubled Courts. Governments and art collectors for decades. Lastly, in light of privacy concerns that follow from this heightened transparency, privacy enhancing technologies can be used to eschew leaking any sensitive information to other partakers of the Blockchain network. Therefore, institutions should move cybersecurity to the core of their agendas and implement strong security measures to prevent leaking.

# / Legal Challenges

As discussed, the benefits of asset tokenization can be manifold and diverse. Nevertheless, certain legal and policy issues need to be addressed before tokenization is completely integrated in the global economy. Such issues arise at private, state and international stage, particularly due to the lack of regulatory alignment and the absence of a uniform framework at a government level. Other principal focus fields involve AML (Anti-Money Laundering) and KYC (Know your Client) regulations and taxation laws.

## Regulatory alignment

The main obstacle in deploying the full benefits of asset tokenization to the wider market is regulatory alignment. Security regulations are usually "technology agnostic".6 Therefore, depending on the type of a token's qualities, it can fall under the full regulatory scope that varies greatly in each jurisdiction, and this applies to trading as well as issuing tokens. While Blockchain technology is de facto decentralized, many benefits of tokenization are concealed by the rigidness of current regulations that inhibit the free international interchange of tokens. There is a need for a new set of compliance rules that would specifically apply to the exchange of tokens at a domestic and ideally international scope. Whilst international alignment seems unlikely, some clarity to the current regulatory framework would be applauded. Thus, facilitating the compliant participation of investors would bring us closer to the realization of a tokenized economy.



As FINMA (Swiss Financial Market Authority)<sup>7</sup> outlined, Stable-Coins are currently not governed by any specific regulations. In addition, the European Council adopted a statement in 2019, warning against a global StableCoin<sup>8</sup> project in the EU until "the legal and regulatory oversight challenges have been adequately identified and addressed."9 Hence, whether a token is trade compliant is checked at an early stage by inspecting, among others, who the sellers and buyers are and where the transaction takes place. Crucially, while regulating decentralized finance may seem counterintuitive, the lack of scrutiny and the absence of a safe infrastructure in which such technology can flourish, leaves room for scams and hacking to emerge. These not only harm investors and the broader economy, but may utterly discourage the token economy. Ultimately, until a stable regulatory framework for the growth of the token economy is established, common good practices through private incentives are decisive.

<sup>6</sup> Patrick Laurent Partner | ACG Leader & Innovation Leader. "The Tokenization of Assets Is Disrupting the Financial Industry. Are You Ready?: Deloitte Luxembourg: Inside Magazine." Deloitte Luxembourg, 14 Nov. 2018

FINMA, Supplement to the guidelines for enquiries regarding the regulatory framework for initial coin offerings (ICOs) published 11 September 2019, available at: https://www.finma.ch/en/news/2019/09/20190911-mm-stable-coins/

<sup>8</sup> Stable coins are linked to underlying assets, to reduce the price volatility of other currently available tokens (eg commodities and Real estate)

<sup>9</sup> Joint statement EU Council and Commission on "stablecoins" of 05.12.2019 available at: https://www.consilium.europa.eu/en/press/press-releases/2019/12/05/joint-statement-by-the-council-and-the-commission-on-stablecoins/



# AML and KYC Regulations Compliance

Another hurdle is that tokens often trigger AML and KYC regulations.10 Such regulations are rigid obligations legal and financial institutions. As the token economy is focused on more direct and expedited transactions, measures for compliance with AML and KYC regulations will have to be adapted. Priority should be given to the collaboration between private institutions. KYC utilities and the tech and blockchain sectors to demonstrate that they remain compliant while operating digitally. Therefore, paving the way for regulators to align and tailor AML and KYC regulations with a tokenized economy. It is foreseeable that, a specialised KYC function will be encoded to the digital identity of the token, which will be used by clients every time they form an association

with a financial institution. Such identity will be transferred down to the value chain in a similar way to traditional references, so that other parties know who they are dealing with." Hence, KYC compliance costs will be reduced, and direct and prompt interactions will be enabled.

#### **Taxation**

Another focus field is taxation. Tax processing systems will have to be adapted to deduct, calculate and process tax schemes, depending on the taxonomy and classification of each token and the relevant valuation principles. Certainly, valuating tokens may be challenging, particularly when it comes to tokens on illiquid assets without an observable market price. A solution would be to encode part of that processing in Smart Contracts.

Depending on the type of token. For example, in contrast with payment tokens, security tokens according to FINMA do not usually trigger AML and KYC rules.

Patrick Laurent Partner | ACG Leader & Innovation Leader. "The Tokenization of Assets Is Disrupting the Financial Industry. Are You Ready?: Deloitte Luxembourg: Inside Magazine." Deloitte Luxembourg, 14 Nov. 2018 at p 6.

<sup>&</sup>lt;sup>12</sup> Darko Stefanoski, Orkan Sahin, Benjamin Banusch, Stephanie Fuchs, Silvan Andermatt, Alexandre Quertramp Tokenization of Assets, Decentralized Finance (DeFi) (Volume 1) Spot on: Fundraising & StableCoins in Switzerland, EY, 2019.

## / Current Market: Jurisdictions

acceptance and regulation tokenization has been expanding unevenly. However, there are certain signs that show that traditional market infrastructure is adapting to token economy, for example the US SEC and EU's ESMA have made some general comments on the area. Meanwhile, among others, Switzerland has made pragmatic plans to adjust to new marketplaces of tokenized securities.<sup>13</sup> Having a clear regulatory framework and a safe infrastructure is therefore vital. This part will offer an outlook on the European continent and focus on current legal developments in the EU and in Switzerland.

#### **Switzerland**

Being one of the most progressive countries in terms of Blockchain adaptation, Switzerland is arguably one of the most important jurisdictions to observe in this area. The Swiss government has traditionally adopted a welcoming stance towards blockchain technology and digital currencies, through which asset tokenization finds application. It encompasses an advanced financial services sector, constitutes a member of the single market and has produced some of the most comprehensive policy documents and reports in this area. Due to legal consistency, profound expertise, social and political stability, it is an ideal hub to promote the sustainable growth of a tokenized market. Further, since the Swiss law is technology neutral, the legal conditions are appropriate for asset tokenization to flourish.

In 2019, the Swiss Federal Council embraced

a dispatch on the improvement of the framework for Blockchain.<sup>14</sup> The proposal is aimed at increasing legal certainty and removing barriers for applications based on distributed ledger technology (DLT). In short, the dispatch recommends: 1) the creation of an electronic registration of rights to increase legal certainty; 2) the separation of tokenized assets in case of bankruptcy, which are to be specifically regulated via the Federal Act on Debt Collection and Bankruptcy; 3) the establishment of a new sanction class for "DLT trading facilities" to enhance the financial market infrastructure: 4) express the possibility to obtain a licence to operate an organized trading facility as a securities firm, which requires the adaptation of the future Financial Institutions Act. Within this development, the finance industry's role to promote a safe and sustainable growth of a tokenized market is crucial.

Another development is FINMA's ICO (initial coin offering) guidelines published in 2018 and its supplement on StableCoins in 2019. Moreover, FINMA's taxonomy and handling of tokens under regulatory law focuses on the economic function and purpose of a token, promoting in this way the necessary notion of "substance over form". Its current approach is focusing on the economic function and purpose of a token and respects the "same risk, same rules" principle.15 Lastly, the Swiss Financial Services Act stipulates a public law prospectus duty for STOs (security token offering). Thus, issuers of securities are under a duty to issue a prospectus to be

<sup>&</sup>lt;sup>18</sup> Hacker, Philipp & Thomale, Chris. (2017). Crypto-Securities Regulation: ICOs, Token Sales and Cryptocurrencies under EU Financial Law. SSRN Electronic Journal. 10.2139/ssrn.3075820, pp. 5-6.

<sup>4</sup> Swiss Federal Council. News Dispatch. Consultation on improving framework conditions for blockchain/DLT available at: https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-74420.html

<sup>&</sup>lt;sup>15</sup> Darko Stefanoski, Orkan Sahin, Benjamin Banusch, Stephanie Fuchs, Silvan Andermatt, Alexandre Quertramp Tokenization of Assets, Decentralized Finance (DeFi) (Volume 1) Spot on: Fundraising & StableCoins in Switzerland, EY, 2019 at p. 32.

examined and approved by a reviewing organization sanctioned by FINMA. Respectively, according to FINMA, issuers of security tokens generally evade Swiss AML requirements, though this may vary case by case. Overall though, it follows that Switzerland has paved the way to a token adjusted economy by setting an array of rules and guidelines to improve the Swiss financial infrastructure and welcome the growth of the promising sector of asset tokenization.

#### **European Union**

As Cyprus constitutes a Member State of the EU, any reports or laws that are introduced at the EU level will have a direct impact on how the national legal framework is shaped. While Cyprus does provide a number of incentive schemes to attract innovation and companies involved in the technology sphere more generally, a comprehensive legal framework governing the tokenization of assets would provide far more legal certainty. Nonetheless, the Swiss, the EU and by extension the Cypriot legal systems are technologically neutral, which provides a positive indication that the legal conditions for Blockchain to flourish are appropriate. Further, ESMA itself has touched upon the topic of Asset Tokenization in looking at initial coin offerings and crypto-assets more generally,16 but in terms of fully fledged and detailed laws, the proposed draft for the "Markets in Crypto-Assets Regulation" (MiCA) is the most targeted and detailed step yet.

MiCA is expected to introduce a more tailored legal framework for crypto-assets. Its aim is to foster innovation, while creating a reliable framework which will ensure the protection of investors and the integrity and stability of the financial markets. Furthermore, it encompasses a number of the principles already found in the "classic" financial services laws, adding clarity and familiarity to the proposed framework. For example, Article 4 obliges the "crypto-asset issuer" to produce a whitepaper containing information on, inter alia, the issuing entity, the crypto-asset and the rights and obligations attached to it. In this regard, the whitepaper is similar to the prospectus that needs to be published when securities are offered to the public or admitted for trading under the Prospectus Directive (Directive 2003/71/EC of the European Parliament and of the Council).

A number of obligations are also imposed on "crypto-asset service providers" (platforms where crypto-assets can be traded, custodians and anyone who is providing such services), including prudential requirements, governance arrangements, the handling of client's funds and so on. To ensure compliance with the said obligations, a supervisory framework is also introduced, with the NCAs (national competent authorities) at its centre and the EBA (European Banking Authority) "sitting" at the top.

This is also accompanied by a special regulatory framework in relation to "utility tokens" <sup>17</sup> and "stablecoins", depending on whether such stablecoins are "asset-referenced" <sup>18</sup> or "electronic money" <sup>19</sup> stablecoins.

<sup>16</sup> https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391\_crypto\_advice.pdf

Trypto-assets which are intended to provide digital access to an application, service or resources available on a distributed ledger and are accepted only by the issuer of that token to grant access to such application, services or resources available.

<sup>18</sup> Crypto-assets whose main purpose is to be used as a means of exchange and that purports to maintain a stable value by referring to the value of several fiat currencies, one or several commodities, or one or several crypto-assets, or a combination of such assets.

<sup>&</sup>lt;sup>19</sup> Crypto-asset whose main purpose is to be used as a means of exchange and that purports to maintain a stable value by being denominated in (units of) a fiat currency. The issuance of e-money tokens is only permitted for EU credit institutions and for electronic money institutions.

Furthermore, crypto-assets which qualify as financial instruments or electronic money under the existing law will continue to be subject to the legal requirements imposed by the current framework (MiFID II, Electronic Payments Directive, the Market Abuse Regulation and so on).

Finally, complementing MiCA is a proposal on a Pilot Regime for Market Infrastructures based on DLT. The proposal aims to allow for experimentation through derogations for the use of DLT in the trading and post-trading of crypto-assets that qualify as financial instruments, where existing legislation precludes or limits their use. It effectively aims to set up a regulatory sandbox that will, on the one hand, exempt EU firms from certain financial regulation requirements that have so far prevented the development of a secondary market for security tokens. On the other hand, it will help regulators familiarize themselves with the application of distributed ledger technology in the said markets, while safeguarding the values that financial regulation is traditionally concerned with (market integrity, stability, innovation and consumer protection).

# Cyprus

In relation to Cyprus more specifically, the government has expressed its intention to introduce a DLT bill,<sup>20</sup> which is expected to tackle some important aspects of the tokenization process as well. While the text of a draft bill has yet to be circulated, an important aspect of it is expected to be the classification of tokens into security and non-security tokens. In its current state, this is in

line with MiCA and will subject the tokens that qualify as securities to the existing securities law framework. Intermediaries, such as exchanges and trading systems, are also expected to come under regulatory supervision and authorization requirements, with an underlying aim of promoting transparency in trading, limiting risks and combating manipulation and unfair trading practices. To these ends, the process of offering a token will also be regulated, such that a whitepaper will be required and conflicts of interests will be managed and mitigated. In regards to the institutional structure accompanying this framework, the Cyprus Securities and Exchange Commission (CySEC) and the Central Bank of Cyprus will continue to act as the licensing and supervisory authorities for the institutions for which they are the competent authorities, such as different service providers and custodians.

In addition, relevant laws, such as in the area of AML, will have to be amended accordingly, in line with international standards and recommendations. In the area of taxation, Cyprus has declared its intention to introduce a taxation friendly regime, which will identify tokens as intangible assets, allowing for amortization for over a maximum of 20 years. Nevertheless, this is a rule of thumb and can vary depending on the specificities of a token. Furthermore, payment tokens<sup>21</sup> will be taxed on net profits and at low rates (standard corporate tax or lower if relevant incentives are to be introduced), while utility tokens<sup>22</sup> will

<sup>&</sup>lt;sup>20</sup> REPUBLIC OF CYPRUS, Distributed Ledger Technologies (Blockchain) National Strategy for Cyprus.

<sup>&</sup>lt;sup>21</sup> Under the current guidance of the Cyprus government, these are defined as tokens that are intended only as means of payment for acquiring goods or services.

<sup>&</sup>lt;sup>22</sup>Under the current guidance of the Cyprus government, these are defined as tokens that are considered to be a promise for the provision of a service or a product that is prepaid in advance with a token.



also be taxed at a corporate rate, and only when exchanged for the service or product they were initially issued for (meaning there will be no tax upon issuance). In relation to investors, different requirements will apply depending on whether the relevant token is a payment, security or utility token. Interestingly, the current intention is to bring these different categories of tokens under existing legislation. Therefore, payment tokens are to be taxed analogously to fiat currencies under the income tax law; security tokens to be treated similarly to payments for dividends and premiums; and profits from trading utility tokens shall be

subject to the ordinary income tax rules.

Overall, it should be kept in mind that until the Cyprus government introduces more guidance on the topic and a bill is formulated for the Cyprus Parliament to vote on, there will be some speculation as to the exact scope and details of this envisaged bill. Nonetheless, the government's indications so far are definitely positive and in the same spirit as the EU's stance. Indeed, it seems that the island is laying down the groundwork to become an important hub for entities involved in the area of asset tokenization and is expected to continue its work such that this becomes possible.

# / Conclusion

Overall, asset tokenization is an area of growing significance, whose relevance is only expected to increase in the following years. As market actors have already started to engage in the offering of tokens and trying to reap the benefits that this process can provide, the law will need to match their pace and safeguard the rights of those involved, without being unduly restrictive.

Any further legislative efforts should not be overly complex, while coordination at the international fora would be a welcomed step to simplifying what currently is a rather difficult area of study. Switzerland and the EU can play their own important roles in this regard, in which case, Cyprus will also find itself at the centre of these ongoing developments.

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