



Fintech and Tokenization: A legislative study in Argentina and Spain about the application of Blockchain in the field of properties

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ABSTRACT

The advent of the Blockchain together with the appearance of the Ethereum platform gave rise to the realization of Szabo's original idea, allowing the implementation of intelligent contracts. Blockchain by itself is a database with certain special characteristics but the potential that this technology acquires with the implementation of intelligent contracts leads us to the conceptualization of intelligent property, internet of things, artificial intelligence, intelligent cities, tokenization of physical assets and properties. This last concept also triggers the possibility of issuing tokens linked to undertakings with sustainable development objectives or "green tokens". The tokenization of digital goods has developed naturally, but the pitfalls -more mental than legal and technological- are present in the tokenization of physical assets, and we will address them in this paper. Del Castillo Ionov says: "tokenization involves taking an asset and, using blockchain technology, issuing tokens representative of that asset, facilitating its negotiation, the enjoyment of the rights of that asset and its governance". The tokenization

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of digital assets has developed naturally, but the pitfalls - more mental than legal and technological - are present in the tokenization of physical assets. Since tokenization of real estate is technologically possible, we are left wondering whether this technological advance is received by legal systems or, in light of the interpretation of existing rules, whether it can be applied. The aim of this paper is to show that real estate tokenization is not only technologically possible but also possible to be implemented in the light of the regulations in force in some legal systems. It believes that the tokenization of physical assets will allow a new field of action, marketing, transmission, circulation of rights and wealth, as well as a new range of opportunities not only for all legal operators but also for the great mass of capital investors interested in sustainable development, as well as for the home retail investor.

1. Introduction to Blockchain and Fintech

The Blockchain technology, thanks to the side chains, associated with the implementation of intelligent contracts and artificial intelligence can revolutionize the entire fintech sector. It is the branch of blockchain technology that, precisely, offers more possibilities for the future, and at the same time the one that poses more challenges to the financial sector. It could mean the end of economic transactions as they have been carried out in the last centuries.

Side chains allow the registration of transactions in specific markets linked to crypto-currencies, generating a wide field of action for the fintech sector, ranging from the implementation of payments and transactions, online banking, market negotiation, management of raw materials, collective financing, development of financial security systems, online advice, digital purses, to the transfer of tokenized physical assets, such as properties or works of art.

The characteristics of the Blockchain technology allow a substantial improvement compared to the current modalities, allowing the transfer of value in a fast, transparent, economic and secure way in terms of information technology.

Recently, in December 2019, a group of experts from the European Commission on Regulatory Barriers to Financial Innovation made a series of recommendations to adapt the fintech regulatory framework, taking into account the emergence and implementation of blockchain technology and artificial intelligence, in order to help develop the potential of financial technology to offer a wide and improved range of financial products and services to customers (European Commission, 2019).

The possible incorporation of large technology companies such as Google, Amazon, Facebook, and Apple to the financial sector will be the definitive implementation of the data economy in financial services and we must be more alert than ever to the possible implications of this.

2. Asset tokenización

The implementation of intelligent contracts, together with the properties of traceability and integrity of the data of blockchain technology, opens the doors, among a universe of possibilities, to the tokenization of digital assets, which will allow the possibility of investment, commercialization, acquisition, transmissibility and circulation of rights over physical assets (Del Castillo, 2018), allowing a

greater circulation of wealth, where it is possible not only to tokenize properties but also any other kind of asset such as works of art. Why not think about tokenizing the brilliant work of Diego Velázquez, Las Meninas, to provide funds to the Museo del Prado?

Let's imagine for a moment the possibility that the Museum requires an investment that cannot be sold with the usual income. We could tokenize that work in ten, twenty, fifty percent or whatever the Museum considers and thus make funds. The painting would become the property of Museum and the private investors. The museum should charge an additional fee, along with the general admission fee, to those who wish to visit the tokenized work(s) and then distribute the profit generated among the token holders. (Pastor Sempere, 2018)

Why not apply it to La Gioconda with the Louvre or to the Sistine Chapel in the Vatican? Perhaps the Holy See could tokenize a part of it in favor of the different works of charity that they have spread around the world, avoiding intermediaries.

If one of the main characteristics of physical assets is their low illiquidity, tokenization is the solution to it. Can we measure the potential of the enormous field of action that is opening up for fin-tech in a global liquidity of physical assets? Tokenization allows us the possibility of creating secondary markets for asset tokens or security tokens.

There is a growing flow of capital from banks, investment funds and companies committed to the boom in sustainable finance, which by July 2019 reached 180 billion dollars (Ambito, 2019). From a financial point of view, sustainable finance focuses most of its energy on financing green and sustainable infrastructure, green properties and any project involving sustainable development. Based on the Principles for Responsible Investment developed by investors with the support of the United Nations (Principles for Responsible Investment 2019), together with the Network of Central Banks and Supervisors for the Greening of the Financial System (NGFS) and the European Union's action plan (European Commission, 2019) for financing sustainable development, investors, central banks and countries are addressing and promoting this new investment modality. On 18 June 2019, the European Commission's Technical Expert Group issued a report setting out the European Union's standards for "green bonds", i.e., determining which activities can be financed with this type of bond and what precise characteristics they must have in order to be classified as green bonds (European Commission, 2019).

In February 2019, the Spanish bank BBVA issued the first green bond in a blockchain, for a value of 35 million euros, fully subscribed by the insurance company Mapfre and using its own platform that allows the customer to structure the instrument directly (Heredia Querro & Sebastián, 2019).

In this state of affairs, it is necessary to mention that new investment projects should think about tokenization as an alternative with greater added value -such as transparency, agility, self-fiscalization and control, potential universality of investors, automation in payment- than the issue of the bonds currently in force. Tokenization, linked to the internet of things and to artificial intelligence, would make it possible to link the investment to the same financed asset, by means of a series of traceable data, collected by sensors strategically installed in the financed green asset, which are shown directly in the investor's digital wallet, in real time, either through camera monitoring or through chips introduced in the green asset that send tokenized data to the blockchain. It is possible to build a reputation on the green asset by creating a direct link between the investor and the financed asset.

One such test is being used by the United Nations Development Programme (UNDP) in a sustainable reforestation project called CedarCoin in Lebanon (United National Development Programme, 2019).

The real challenge that sustainable finance demands goes further, and involves migrating payments and settlements of green bonds through stablecoins or currencies guaranteed by Central Banks, automatically through the use of smart contracts.

3. Tokenization of properties

One of the forms of evolution in the transfer of property can be carried out by means of the new modes of commercialization through the tokenization of property and the release of tokens to the extent of the payment of each of the quotas.

Imagine the possibility of a large scale properties development (shopping mall, hotel, office building) where a significant amount of funds is required for the development. Applying the concept of collaborative economy, linked to the potential of new technologies, we can offer investors from all over the world the properties project for a possible properties investment or loan.

It has been proposed the possibility of tokenization of properties, which would be nothing more than the creation of a properties project where the property to be created is atomized into parts represented by tokens (De la Fuente, 2018). These tokens may represent square meters of properties, whether owned, used or fully owned, but they may also represent a credit right on the property or any other possibility that is legally viable for the purpose of carrying out the properties project. Once the project is completed, token holders will have the right to convert those digital assets into the property right in the property that the token represents, i.e. the conversion will be the representation in the property of the legal representation that the token's rights had in the digital world.

In order to carry out the idea previously proposed, we must define the concept of token in order to be able to implement it in the commercialization through the microfinance system. Once the conceptual idea is obtained, it is convenient to analyze the legislation in both Argentina and Spain for its viability.

3.1. Token concept

The word token, depending on the field of action we are talking about, has several meanings. In computer programming it is an element of the programming language. In the field of computer security, it is a mobile application (bank token) that allows for secure transactions with a given entity, but it is also a physical electronic device that allows for the storage of cryptographic keys such as digital signatures or biometric data. In the field of finance, a token is understood to be the digital re-presentation of any good that may be in commerce; it is a new term for a unit of value issued by a private entity. In the same way that crypto-currencies exist, the virtual shares of a company also exist. We call these virtual shares tokens. The token is a new investment tool through the Blockchain. It can have functions of means of payment, but it can also be the representation of a stock or securities, a product, a house, a plant, points on the card or in a commerce, kilograms of soy, kilowatts of electricity, among other things. It allows everything to be marketable.

If a token is the representation of any property in commerce, it could be the representation of a right over a property or the undivided part of a property, and we can then talk about the «tokenization of the property». It could also be the right to use it for a specific or undetermined period of time, and we can think of the evolution, now in the digital world, of the institutes of shared time, usufruct, surface, among other rights. It allows everything to be marketable. (Cosola, S. J. y Schmidt, W.C. 2018)

It is important to emphasize that a token is not a real right, nor can real rights be transmitted through tokens. According to the Swiss Financial Market Supervisory Authority (FINMA) or the Spanish National Securities Market Commission and the Bank of Spain, tokens can be classified according to their different uses, functions and transferability. Following the above classifications, the tokens issued for a properties tokenization would be asset tokens or security tokens. By virtue of this, the legal nature of these tokens would be similar to that of a security since, in these tokens, there is a specific issuer, an unconditional and irrevocable obligation of a benefit on the part of the issuer and therefore the holder of the token can exercise an action against the issuer.

The importance of the classification of these tokens, as well as determining the legal nature of each one of them, lies essentially in determining the applicable legislation, as well as in evaluating possible or no state intervention in the issuance of these tokens when planning an ICO, and determining the impact that the money laundering and financing of terrorism legislation has depending on the class of tokens being discussed.

3.2. Applicable legislation

Given that it is possible to tokenize assets, let us then analyze the applicable legislation in Argentina and Spain for the case of a commercialization of property through the microfinance system through tokenization of the same, which we must call “tokenization of property”.

One of the discussions that arise in this issue is whether tokenization is part of a public offering, another question to be clarified is whether the collective or participative financing platform is regulated and under the orbit of the National Securities Commission in Argentina or the National Securities Market Commission in Spain, since in both cases the activity of financial microfinance is regulated. When talking about properties tokenization, and taking into account that the legal nature of this type of token, it would be assimilated to a security, since it is within the category of asset tokens, and the financing platform would appeal to investors in general through the use of mass media, In the case of a token, which is intended to perform legal acts with negotiable securities, there would be no discussion to understand that operatoria is regulated and under the orbit of the Comisión Nacional de Valores in Argentina or the Comisión Nacional de Mercado de Valores in Spain, having to request in both cases the previous registration in such Commissions in order to be able to commercialize the tokens afterwards.

In the case of a properties tokenization that does not use a collective or participative financing platform, we must follow the regulations of each of the countries because it could be considered that such issue would not be under the jurisdiction of such organizations.

3.2.1. Argentina

Taking into account the legal nature of this type of token, we must analyze the regulations of the National Civil and Commercial Code. The legal structure is composed of the concept of security given in article 1815, the possibility of creating securities by any person mentioned in article 1820, and article 1850 where the regime to be applied to securities is established. To this must be added articles 2 and 3 of Law 26,831 on Capital Markets.

Finally, and taking into account that we have to adopt the crowdfunding modality for the commercialization of the development, we have to comply with the General Resolution 717-E/2017 of the National Securities Commission (CNV) which establishes that the Collective Financing Platforms (“PFC”) are legal entities constituted as corporations, authorized to operate as PFC by the Commission and that must be registered in a registry created for that purpose, for which they are controlled and

supervised by the National Securities Commission. Likewise, for any issuance of asset tokens, authorization must be requested from this Commission.

By virtue of this, in the Argentine Republic we have the necessary legal scaffolding for the creation and issuance of asset tokens, representing rights to access a real right. For the purposes of opposability against third parties, the code requires registration in a registry which may be kept by the issuer itself, or on its behalf, by a securities office, an authorized financial institution or a notary public, which is known both in Argentina and in Spain as a notary public.

In conclusion, the tokenization of properties and its commercialization through crowdfunding is feasible and possible in Argentina. From a legal point of view, only the above-mentioned regulations, especially those of the CNV, should be taken into account.

3.2.2. Spain

In accordance with Article 46 of Law 5/2015 of 27 April on the Promotion of Business Financing, the Participatory Financing Platform will be applicable only in the case of loan or crowdfundig micro-finance. But if the properties tokenization does not provide for the crowdfundig modality, we must be to another regulation.

Based on the text of article 6.1 of Royal Decree 4/2015 of 23 October, the National Securities Market Commission interprets that there may be negotiable securities that are not represented by book entries or by securities, but rather that there are tokens representing rights that are registered in a blockchain, in other words, that there are tokens that are considered to be negotiable securities. In our case, as we have been defining and considering with its legal nature, they would be the tokens of assets pro-venue of the properties tokenization. Therefore, the Commission itself is recognizing the existence of these tokens, but it mentions that for the tokens to be traded in the Spanish market it will be necessary to register them as a trading center (as a regulated market SMN or SOC) or as an investment service company (ESI) subject to the regulations and under the orbit of the National Securities Market Commission.

By virtue of this, the rules on public offer of securities will be applied to the tokenization of properties (Del Castillo., 2018), for which the issue prospectus must be registered under the terms determined by Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market and repealing Directive 2003/71/EC (EUR-Lex., 2019).

In conclusion, the tokenisation of properties and its marketing through crowdfunding is feasible and possible in Spain. From the legal point of view, only the above-mentioned regulations should be taken into account.

4. Digital properties tokenization projects

4.1. Brickblock

Through this platform a property in Wiesbaden has been tokenized. Real estate shares with a total volume of two million euros were issued. The issued and acquired tokens entitle their holders to receive dividends from rental income as well as interest and capital distributions.

4.2. Car park in the city of Ljubljana

Car park in the city of Ljubljana (Slovenia).

Through a project of the Blocksquare company by which a parking lot was «tokenized» in the capital city of Slovenia, Ljubljana, nineteen investors from eight countries now share the ownership of a parking space in the Ljubljana Technology Park. Investors from the Netherlands, Germany, the United Kingdom, Portugal, Canada, Russia, Australia and Brazil are receiving dividends from the rental of a parking space in the Ljubljana Technology Park.

4.3. Realfund (Spain)

It is the first real estate tokenization company in Spain. Presented in April 2019 to date, it has tokenized a property in the city of Barcelona through real estate crowd-lending.

4.4. Tokeniza (Spain)

Spanish real estate tokenization company. To date it has a pilot project in the south of Spain.

4.5. LandToken and La Tahona (Uruguay)

La Tahona, a company that owns gated communities in Uruguay, in order to finance some of its investment projects decided, through the Uruguayan LandToken startup, to make an offer of tokens to attract investors of all kinds. This issue is guaranteed with part of the properties of the gated community.

5. Conclusions

Tokenization allows for the liquidity of illiquid assets or assets that, for the moment, were very low in liquidity, as well as opening up a range of potential investors scattered around the world that would be unthinkable in the traditional way. It is estimated that globally the amount of real estate reaches 228 trillion dollars. If only ten percent of them were tokenized, we would be talking about more than twenty-two trillion dollars incorporated into the financial circuit. The potential possibility of making a real estate asset liquid would give a boost to the primary and secondary financial market through which monetary circulation would give a new impulse to the entire financial sector, also allowing access to financial markets to any person.

The widespread adoption of real estate tokenization would also make it possible to comply with some of the points discussed in the Bali agenda by the World Bank and the International Monetary Fund when talking about the formation of open, free and unrestricted markets, as well as promoting techno-finance to foster financial inclusion and develop financial markets. The present issue of the tokenization of physical assets is within the considerations of the mentioned agenda.

The different options allowed by the tokenization of real estate (partial or total tokenization of the property; token with a right to use, or usufruct, or naked property, or as a guarantee of an investment or loan, token with a right to a surface right, among others) exceed the present work and in fact, would deserve a special work, but we could advance that one of the solutions that could be given is that, at the moment that the tokenization of a property is decided, it is required to communicate it to the Property Registry for the purposes that it advertises in the entry of the same (registration, The purpose of this is

to ensure that digital investors are informed of the registration of the property, as well as to publicize the property and oblige third parties who wish to carry out an act on the registered property to investigate and take all the necessary measures that the legal system provides for and requires of any person who considers himself to be a good faith purchaser (Schmidt, 2020).

It is necessary to think about and provide legal certainty to the entire marketing phase through the tokenization of the same. In the business of crowdfunding and crowdlending in-mobiliario only the assignment of tokens to the rights that the participation of each investor has is pending (De La Fuente., 2019).

We conclude, as we postulated at the beginning of this work, that the tokenization of physical assets will allow a new field of action, marketing, transmission, circulation of rights and wealth, as well as a new range of opportunities not only for all legal operators but also for the great mass of investment capital interested in sustainable and real estate developments, as well as for the home retail investor.

It is true that «tokenization» is at a very early stage, not only because of the lack of international regulation but also because of the complexity of understanding the concept for its current use among non-technological users. Tokenization, whether of real estate or assets, is only a matter of time, and legal operators must provide the necessary tools and solutions for a safe and accurate marketing of these. It is up to us. The path is laid out and the future of the commercialization of real estate and digital assets has already begun to take its first steps, the technological platforms are there, some legislations -like the Spanish and Argentinian ones- foresee the possibility of doing it. All that remains is to open the doors, explore and discover the new world of marketing through the tokenization of assets.

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