Cryptocurrencies and crypto-assets in the Italian and EU perspective

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For citation: Lener, Raffaele. 2022. "Cryptocurrencies and crypto-assets in the Italian and EU perspective". *Vestnik of Saint Petersburg University. Law* 1: 219–229. https://doi.org/10.21638/spbu14.2022.112

The article provides a first critical exam of the approach taken by EU Regulators and Courts regarding cryptoactivities. The purpose of this analysis is to see if a new European regulation on "encrypted" financial services will really be born. The analysis begins with the definition and regulation of Cryptocurrencies, the best of which are probably found in the opinions of supervisory and regulatory bodies. Italian courts dealing with this difficult subject show uncertainty among assets (beni), money (valuta), and financial products. Today the reflection of both Regulators and Courts is expanding from cryptocurrencies to the wider and even more indefinite area of the so-called crypto-assets. In this regard, the most recent and important element is given by the European Commission Proposal of September 24, 2020, concerning regulation of crypto-asset markets (Regulation on Markets in Crypto-assets, MiCA). The proposed regulation should apply to crypto-asset issuers, as well as to providers of crypto-asset services on the territory of the European Union. Also in this case, the definition of "cryptoasset" is crucial. New rules provide a fairly generic definition as "digital representations of value or rights that can be transferred or stored electronically using distributed ledger or similar technologies". To obviate the vagueness of the definition, the only possibility seems to be moving by subtraction, i. e., listing a series of "tools" to which the proposed regulation does not apply, even though these may fall, in theory, in the broad definition of "crypto-asset". Keywords: financial markets, cryptocurrencies, crypto-assets, financial instruments, financial products, blockchain, distributed ledger technology, smart contracts, token, investor protection.

1. Introduction

A discussion on crypto-assets requires a brief recap of the functioning of blockchain, smart contracts and tokens. To simplify, we define "blockchain" as a derivative of Distributed Ledger Technology (DLT). Blockchain is, indeed, a particular form of DLT and can be described as a system in which information and data are stored using cryptography. The peculiarity of this innovative *database* is its decentralization that comes from the fact that this "register" is under the control of a peer-to-peer network of participants. A blockchain database can record the transactions made by the system's participants without the need of a unique and central authority that manage it. DLT allows full disintermediation, since each participant of the network, called "node", possess a full copy of the information stored therein.

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Decentralization is, however, the first but not the only important characteristic of a blockchain (Lener, Furnari 2020). The second is transparency. Indeed, to reach the best level of decentralization, there is a need to let everyone become a node of this database. In other words, it is necessary to give to everyone the right to see (and copy) all the information stored in this register using specific tools. Decentralization and transparency make DLT a cyber-secure choice to store information. Indeed, who wants to modify the information stored in the distributed register needs to have the majority of the "computational power" given by participants to the system. This means also the approval of the nodes offering such power.

The innovative functionality of DLT lies in the peculiar kind of things that can be stored in its registers, especially the so-called token. A token is nothing more than a record of information that results in favor of a participant. Tokens are created by blockchain protocols in which they are registered or by a *smart contract*. A token allows the *possessor* (the person who has power to transfer its transcript in favor of another) to be recognized by the entity who released the token as the holder of a precise amount and/or kind of rights. If, from a technical point of view, a token is nothing more than a simple registration, from a functional point of view it is an informatic instrument that allows participants to exercise precise rights towards the releasing company. Those rights are, often, the subject of an offer to the public in exchange of money to develop an entrepreneurial project (Initial Coin Offering or ICO). The rights conferred by a token include: authority to exchange the token itself (cryptocurrency); access to a service provided by the platform (utility token); administrative or economic rights toward the company that offered them (investment token). Hence, tokens are adaptable tools that can represent almost everything (tokenization process). They can easily be sent to or exchanged with other participants and, notwithstanding their virtual nature, they do not need an intermediary to be stored or transferred (Lener, Furnari 2020).

Smart contracts were born when some blockchain protocols, such as the Ethereum one, started to use the power of calculation of its participants to run a *virtual machine*. In turn, a virtual machine can be imagined as a big (phantom) computer using the power given by all the computers of the participants to elaborate softwares. Therefore, smart contracts are not contracts, but simply algorithmic sequences elaborated by a computer created with the "calculation power" of the nodes. The virtual machine — as every information recorded on the blockchain — is not under the control of anybody, so that smart contracts acquire the two following characteristics: unstoppable self-execution and autonomation (Lener, Furnari 2020; Furnari 2019; Sarzana Di Sant'ippolito, Nicotra 2018, 90–114; Raskin 2017; Werbach, Cornell 2017)¹.

Like much software, smart contracts are self-executing. If a smart contract is programmed to perform a determined action, it will work until the action is completed. This means also that if a precise mechanism to stop its activity has not been "programmed" by the party who launched it, nobody can stop it without taking the control of the majority of the calculation power alimenting the blockchain.

Autonomation means that smart contracts do not need human interaction for their execution. Above all, they can be used to perform obligations deriving from a contract

¹ Those characteristics make smart contract suitable to be used for the execution of contracts. It is from this fact that they took their name.

that can be written within the smart contract itself (Szabo 1997)². A contract of this kind could help managing a contractual execution since there is no need for interpretation of its terms. At these conditions, parties do not need to trust each other before the conclusion of the agreement since the execution its fully automated. For instance, this principle applies particularly to the collection of money through the launch of an ICO. If the collection of money is managed using a smart contract, this program will automatically deliver token in exchange of the money received.

Smart contracts can in this way grant the rights attached to a specific token. If a token grants the access to a specific service of the issuer, the buyer of the token could be sure that he will enjoy the service he paid for.

In brief, it is possible to describe DLT and its derivatives as follows: Blockchain is the infrastructure on which tokens are placed and interact with other participants using smart contracts without the presence of intermediaries (Lener, Furnari 2020).

2. Basic research

2.1. Cryptocurrencies in front of the Italian courts

It is not easy to say in strict legal terms what the so-called virtual currencies (or cryptocurrencies) are. The best definitions are perhaps found in the opinions of the main supervisory and regulatory authorities, such as the EBA, FINMA, ESMA, and Bank of Italy³. In fact, until 2017, the national legal system did not have a regulatory definition of virtual currencies. With Decree no. 90 of 2017^4 , implementing the IV European antimoney laundering directive (Directive (EU) $2015/849)^5$, the legislator amended the rules contained in the Decree no. 231 of 2007 (so-called anti-money laundering decree), defining in Art. 1, sub qq)⁶, virtual currency as a "digital representation of value, not issued by a central bank or public authority, not necessarily linked to a legal tender currency, used as a

² To highlight their basic functioning, smart contract has been described as "online vending machines". Indeed, within the blockchain, they appear as *autonomous agents* who perform predetermined actions in response of a precise input.

³ See: "Guidelines for enquiries regarding the regulatory framework for initial coin offerings (ICOs)". *FINMA*. 2018. Accessed December 3, 2021. https://www.finma.ch/en/news/2018/02/20180216-mm-ico-wegleitung; "Advice on Initial Coin Offerings and Crypto-Assets". *ESMA*. 2019. Accessed December 3, 2021. https://www.esma.europa.eu/document/advice-initial-coin-offerings-and-crypto-assets; "Report with advice for the European Commission on Crypto-asset". *EBA*. 2019. Accessed December 3, 2021. https://www.eba.europa.eu/eba-reports-on-crypto-assets; "Rapporto sulla stabilità finanziaria n. 1". *Banca D'Italia*. 2018. Accessed December 3, 2021. https://www.bancaditalia.it/pubblicazioni/rapporto-stabilita/2018-1/index.html.

 $^{^4}$ The Decree no. 90 of 2017. Accessed December 3, 2021. https://www.normattiva.it/atto/carica DettaglioAtto?atto.dataPubblicazioneGazzetta=2017-06-19&atto.codiceRedazionale=17G00104&atto.articolo.numero=0&atto.articolo.sottoArticolo=1&atto.articolo.sottoArticolo1=10&qId=f701b708-3b21-42be-8d21-65012e1b9366&tabID=0.03794678907261151&title=lbl.dettaglioAtto&generaTabId=true.

 $^{^5}$ Directive (EU) 2015/849. Accessed December 3, 2021. https://eur-lex.europa.eu/legal-content/IT/TXT/?uri=celex%3A32015L0849.

⁶ The Decree no. 231 of 2007. Accessed December 3, 2021. https://www.normattiva.it/atto/carica DettaglioAtto?atto.dataPubblicazioneGazzetta=2018-02-08&atto.codiceRedazionale=18G00023&atto.articolo.numero=0&atto.articolo.sottoArticolo=1&atto.articolo.sottoArticolo=10&qId=30574ad8-47e9-4657-83be-1f41c6b5b229&tabID=0.10439236553126485&title=lbl.dettaglioAtto.

medium of exchange for the purchase of goods and services and electronically transferred, filed and negotiated".

Despite the solutions adopted, the question of the legal nature of virtual currencies remains doubtful. The theses proposed in this regard discount criticism. The results are considerable uncertainty about the applicable legal regime, which also poses several problems in relation to company law.

It is in this heated debate that the sentence of the Court of Brescia of July 25, 2018 and the decree of October 24, 2018 of the Court of Appeal of Brescia are placed. With such rulings, the case law intervenes for the first time on the issue of the use of cryptocurrencies in corporate law.

Following the reconstruction of the Court of Brescia, cryptocurrencies must be qualified as "assets". On the contrary, the Court of Appeal considers them similar to "money". Both constructions have weaknesses. In particular, cryptocurrencies intended as a legal asset raise some doubts in relation to the fact that the attribution of exclusive rights on intangible assets is regulated, in our legal system, by a principle of strict typicality, i. e. the right on the intangible asset exists if there is a standard, a legal provision, that recognizes it. In the case of cryptocurrencies, there is no such rule, or rather there is, but it does not in any way say that an information or a number is an intangible legal asset.

A qualification of cryptocurrency as a currency, on the other hand, suffers from various critical issues. Cryptocurrencies, in fact, can be traced back with difficulty to the concept of "money", since they do not fall within any of the reconstructions offered by the various rules that deal with the currencies (Livi 2019, 111). In the end, even if the qualification of cryptocurrency as a financial service (better, a financial product), proposed by the Veronese judges, also highlights critical issues, and so this solution appears preferable. Indeed, it seems more reasonable to trace cryptocurrencies to the broader category of "financial products", identified by Art. 1, paragraph 1, *sub* u) of the Italian Consolidated Law on Financial Markets of 1998 (so called TUF) as "financial instruments and any other form of investment of a financial nature", at least in the common hypothesis in which Cryptocurrencies assume the function of "financial investment".

2.2. The EU Commission proposal on crypto-assets

In fact, today the analysis of both Regulators and Courts is expanding from cryptocurrencies to the wider and even more indefinite area of the so called crypto-assets. In this regard, the most recent and important element is given by the European Commission Proposal of September 24, 2020, concerning the issue of a Regulation on Crypto-asset markets ("Regulation on Markets in Crypto-assets" or even MiCA⁸). Pursuant to Art. 2, paragraph 1, of the Proposal, the regulation applies to crypto-asset issuers, as well as to providers of crypto-asset services in the territory of the European Union. As for the notion of "crypto-asset", Art. 3, paragraph 1, n. 2, provides a fairly generic definition.

⁷ See the decision of the Court of Cassation no. 26807 of September 25, 2020, in which the activity of promoting investment in Bitcoin has been qualified as an investment activity regarding the distribution of financial product. Accessed December 3, 2021. http://www.italgiure.giustizia.it/xway/application/nif/clean/hc.dll?verbo=attach&db=snpen&id=./20200925/snpen@s20@a2020@n26808@tS.clean.pdf.

⁸ Regulation proposal on Markets in Crypto-assets (MiCA). 2020. Accessed December 3, 2021. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593.

These are defined as "digital representations of value or rights that can be transferred or stored electronically using distributed ledger or similar technologies" (De Filippi, Wright 2018; Lener, Furnari 2020; Furnari 2019, 90 ff; Sarzana Di Sant'ippolito, Nicotra 2018)⁹.

To obviate the vagueness of the definition, Art. 2, paragraph 2, helps to objectively outline the scope of application of the Proposal by listing a series of "tools" to which the Proposal does not apply, even though these may fall, in the abstract, in the definition of "crypto-asset". This list includes: 1) financial instruments, as defined by Directive 2014/65/EU¹¹¹, 2) electronic money, as defined by Directive 2009/110/EC¹¹; 3) deposits, as defined by Directive 2014/49/EU¹²; 4) structured deposits, as defined by Directive 2014/65/EU¹³; and 5) securitisations, as defined by Regulation 2017/2402/EU¹⁴. In order to precisely circumscribe the objective scope of application of the Proposal, it then becomes necessary to read together (but by subtraction) Art. 2, paragraph 2, and Art. 3, paragraph 1, n. 2. It thus becomes possible to define a Crypto-asset as a digital representation of value or rights that can be transferred or held electronically using Distributed Ledger Technology (DLT) but which does not qualify as a financial instrument, electronic money (except in cases where this is not tokenized, as we will see below), deposit, structured deposit or securitization. It seems, then, that the Commission wants to offer a definition of crypto-asset that is more technical than legal.

The Proposal is intended to specifically regulate the offer of particular categories of crypto-assets. These are essentially three and, as will be seen, although it seems to want to recall the traditional tripartition in cryptocurrencies, utility tokens, and investment tokens, the document departs at least partially from this classification.

The three categories of crypto-assets identified in the Proposal are: "utility tokens", "asset-referenced tokens", and "electronic money tokens". Utility tokens are defined as crypto-assets issued for the purpose of providing digital access to a good or service, available on a DLT network and accepted exclusively by the issuer¹⁵. Asset-referenced tokens (ART) are defined as crypto-assets that maintain their value stable thanks to the connection with the value of legal tender currencies, baskets of assets, other crypto-assets, or a combination of these¹⁶. Taking up the traditional classifications, it would be possible to include ARTs in the best-known category of stablecoins, or cryptocurrencies whose value is kept "stable" through reference to coins with legal value, assets, or the use of

⁹ The definition reads "Crypto-asset' means a digital representation of value or rights which may be transferred and stored electronically, using distributed ledger technology or similar technology" (Art. 3, paragraph 1, n. 2).

¹⁰ Directive 2014/65/EU.Accessed December 3, 2021. https://eur-lex.europa.eu/legal-content/IT/ALL/?uri=celex%3A32014L0065.

¹¹ Directive 2009/110/EC.Accessed December 3, 2021. https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex%3A32009L0110.

 $^{^{12}}$ Directive 2014/49/EU. Accessed December 3, 2021. https://eur-lex.europa.eu/legal-content/IT/TXT/?uri=celex%3A32014L0049.

 $^{^{13}}$ Directive 2014/65/EU. Accessed December 3, 2021. https://eur-lex.europa.eu/legal-content/IT/ALL/?uri=celex%3A32014L0065.

¹⁴ Regulation 2017/2402/EU.Accessed December 3, 2021. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2017.347.01.0035.01.ENG.

¹⁵ "Utility token' means a type of Crypto-asset which is intended to provide digital access to a good or service, available on DLT, and is only accepted by the issuer of that token" (Art. 3, paragraph 1, n. 5).

¹⁶ "Asset-referenced token' means a type of Crypto-asset that purports to maintain a stable value by referring to the value of several flat currencies that are legal tender, one or several commodities or one or several Crypto-assets, or a combination of such assets" (Art. 3, paragraph 1, n. 3).

particular algorithms that manage their offer and therefore the value (De Bonis, Vangelisti 2019, 155–156; Bozza 2020). Finally, e-money tokens (EMT) are defined as crypto-assets whose main purpose is for the exchange of goods and services and which in any case aim to keep their value fixed through an exclusive connection with current currencies¹⁷. Even EMTs, therefore, can be considered as a particular type of stablecoin (and therefore cryptocurrency) whose value is exclusively linked to a legal tender currency. The reference to the function of medium of exchange seems almost pleonastic considering that that of intermediating exchanges would seem the only aim pursued by a crypto-asset whose value is stabilized with reference to a specific legal tender currency.

Comparing this classification with the traditional one, the absence of the investment token category is not surprising (Hacker, Thomale 2018; Annunziata 2019; Ferrais 2019; Pirani 2019, 337; Boreiko, Ferrarini, Giudici 2019, 665; Maume, Fromberger 2019; Maas 2019; Furnari 2018). On the other hand, it seems to confirm the principle, already defined for some time in overseas doctrine and jurisprudence, according to which investment tokens are financial instruments in all respects and the relative rules apply to this category, without any derogation or "aggravation" Regulatory due to the fact that the financial instrument is represented through a crypto-asset.

Rather, the special attention paid to cryptocurrencies and, among them, to the so-called stablecoin. The detailed discipline of ARTs and EMTs, in fact, reveals the concern that the dissemination of these "digital currencies" could harm the financial stability or the principles of monetary sovereignty of the Union. Compared to the traditional tripartite division, therefore, the proposal has kept only the number, choosing to focus on those types of crypto-assets not covered (such as cryptocurrencies) or not sufficiently covered (such as utility tokens) by a discipline, even partial, at European level. Article 3 also provides a definition of Crypto-business service provider (Art. 3, paragraph 1, n. 8), as well as a precise list of these services (Art. 3, paragraph 1, n. 9).

2.3. Definition by subtraction?

Also from a subjective point of view, the Proposal uses the same technique of "by subtraction" used in the definition of its objective scope of application. The basic principle is that which the discipline applies to all issuers and service providers in crypto-assets, but with the exceptions described in Art. 2, paragraphs 3–6. It is possible to classify these exceptions, distinguishing between subjects completely excluded from the discipline and subjects whose exclusion is only partial. The subjects completely exempt from the discipline include the European Central Bank and national central banks when they act in the exercise of their powers; the European Investment Bank; the European Stability Mechanism and the European Financial Stability Fund; and international organizations. The partially exempt subjects, on the other hand, include credit institutions and investment companies; insurance and reinsurance companies in carrying out the activities envisaged by Directive 2009/138/EC¹⁸; liquidators or extraordinary administrators in carrying out

¹⁷ "Electronic money token' or 'e-money token' means a type of Crypto-asset the main purpose of which is to be used as a means of exchange and that purports to maintain a stable value by referring to the value of a fiat currency that is legal tender" (Art. 3, paragraph 1, n. 4).

¹⁸ Directive 2009/138/EC. Accessed December 3, 2021. https://eur-lex.europa.eu/legal-content/IT/ALL/?uri=CELEX%3A32009L0138.

the liquidation activities for which they have been appointed, except in the case in which they are implementing a liquidation plan pursuant to Art. 42 of the Proposal; as well as subjects who perform crypto-business services in favor of associated companies.

In particular, credit institutions are not subject to the regulation only when they issue ART, or provide one or more services in crypto-assets. In the first case, Chapter 1, Title III of the Proposal, which governs the authorization procedure for the issuance of ART, as well as Art. 31 concerning the issuer's capital requirements. In the second case, banks that provide crypto-asset services are not required to comply with the provisions set out in Chapter 1, Title V and therefore, also in this case, with the authorization procedure. Investment companies, on the other hand, are required to comply with the rules regarding the authorization of the provision of crypto-asset services (Chapter 1, Title V) only if they offer a crypto-asset service in relation to which they possess the authorization to provide the crypto-asset service. corresponding investment¹⁹.

2.4. "Atypical" crypto-assets

The first type of offer governed by the Proposal concerns crypto-assets other than ARTs and EMTs. As a preliminary point, this category is narrower than what could be deduced from reading the Proposal. In fact, among crypto-assets that cannot be offered in a "simplified" way, there are also the so-called investment token, this category forgotten by the regulatory proposal. This omission seems questionable. Although it is now well established that the discipline of financial instruments must be applied to the public offering of these crypto-assets, it cannot be forgotten that an investment token, in addition to being a financial instrument, is still a crypto-asset and therefore possesses its own regulatory needs. On the other hand, utility tokens fall fully into this category. By virtue of their diffusion in this sector, it seems correct from now on to believe that this is the category that Title II of the regulatory proposal intends mainly to regulate. In line with this, it seems possible to continue the discussion by referring directly to utility tokens, so as to avoid the recurring use of the terminology "crypto-assets other than ART and EMT".

One could doubt that the entire Proposal can apply to cryptocurrencies in the proper sense, and therefore to Bitcoin or other cryptocurrencies in which it is not possible to identify an issuer or in any case a person who has created or promoted the related project. This is confirmed by the reading of Art. 4, paragraph 2, of the Proposal within which, among exemptions from the publication of the so-called white paper (an information document of the offer), it is part of the case in which the crypto-asset in question is only the result of a mining activity or is automatically attributed to the subjects that are involved in supporting a DLT network infrastructure, holding a copy of the distributed ledger and validating the transactions (the so-called nodes). An exemption that, if in some ways it constitutes an important recognition, in reality, however, appears to be of dubious usefulness. Indeed, the public offering of a crypto-asset with the aforementioned characteristics will not, by definition, not even have a management body to which the obligations (and responsibilities) outlined in the Proposal can be referred.

¹⁹ Art. 2, paragraph 6, letters from "a" to "f", of the Proposal presents a comparison between Crypto-asset services and investment services regulated by MiFID II.

2.5. ARTs as stablecoins

The proposal then deals with asset-referenced tokens or ART bidders. As anticipated, ARTs are defined by the proposal as stablecoins whose value may depend on legal tender coins, other crypto-assets, or other assets. Given the widespread concern that the offer of ART, due to their nature, could constitute a "natural enemy" of the legal tender currency, the discipline of their offer to the public is characterized by authorization procedures that see the involvement of several authorities, as well as the possibility of prohibiting its offer if this could threaten financial stability or the principles of monetary sovereignty.

2.6. The EMT offers

The third case, concerning the EMT offer, appears slightly less stringent. This seems justifiable based on the different nature of the crypto assets being offered. And in fact, compared to ARTs, the value of EMTs depends exclusively on the value of a legal tender currency taken as a reference. As expressly established by Art. 43, EMTs are to be considered, to all effects, as electronic money as defined by Directive 2009/110/EC, even if they constitute the tokenized version. Precisely by virtue of this identity with e-money, EMT offers to the public can only be conducted by credit institutions or e-money institutions which are in any case required to publish a white paper (Art. 43, paragraph 1).

2.7. The procedures

As for the authorization procedures of service providers in crypto-assets, Art. 53 of the Proposal begins by stating a principle of exclusivity, according to which the services relating to the use of crypto-assets can be offered only by those authorized under the new regulations. The authorization is valid throughout the territory of the Union, so much so that Member States are prohibited from imposing a physical presence within their territory on those already authorized²⁰. The authorization must be requested from the competent authority of the place where the subject has its registered office. The application must contain a long series of information, among which the following deserve particular attention: the description of the technological and security systems, which must also be made using non-technical language; details of the procedures for the segregation of the assets of its customers; as well as systems for identifying market abuse. The application must also describe the specific services that the subject intends to offer.

The authorization procedure is slightly simpler than that required for the public offering of crypto-assets. In fact, the involvement of other authorities is not required and, above all, the verification that the activity undertaken has effects on financial stability or on the principles of monetary sovereignty.

The provision of crypto-asset services is subject to behavioral obligations as well as prudential requirements. With regard to behavioral obligations, it is expected that, almost like a traditional financial intermediary, lenders must act with honesty, fairness and professionalism, pursuing the best interests of the customer. Lenders are also subject to obligations of correct information, especially in promotional communications, which

²⁰ Pursuant to Art. 58, the service provider is simply required to communicate to the competent authority of his home Member State his intention to operate in another State.

must be clearly identified as such. Particular attention deserves the obligation not to highlight the perceived, or real, advantages of the crypto-assets with which they operate. Finally, customers must be informed of the risks associated with these transactions as well as of the fees charged by the lender (Art. 59).

The providers of crypto-based services are then imposed precise organizational requirements, obligations for custody and safeguarding of the crypto-assets and funds of their customers and obligations to set up procedures for handling complaints.

2.8. Custody services and exchange platforms

As for "traditional" crypto-asset services — custody services and exchange platforms (so-called exchanges) — greater importance must be given to the first, in order to verify how "traditional" operators have been regulated within the Proposal. In fact, it is possible to include the operators who have characterized this market from the outset into this category.

The specific obligations for wallet service providers (defined by the Proposal as providers of crypto-asset management and custody services) are described in Art. 67. Among these, the obligation to adopt precise policies to ensure the protection of the private keys of each wallet and prevent, in any way, that a customer can lose access to their crypto-assets due to fraud, negligence or attacks by part of cyber criminals. These lenders must then facilitate the customer to exercise the rights inherent in the crypto-assets held on his behalf. In this regard, clients must receive information on the crypto-assets held at least quarterly and, in any case, when the holding of a particular crypto-asset requires any form of their participation or action.

Wallet service providers must then ensure that the private keys or, in any case, the crypto-assets themselves are promptly made available to the customer who requests them. Customer crypto-assets must also be kept separate from the lender's own assets, also ensuring that crypto-assets belonging to the same DLT network are kept at separate addresses. In this way, the damage of a hacker attack against the lender should be reduced. Finally, it is expressly provided that lenders are held directly liable to their customers for crypto-asset losses as a result of malfunctions (so-called bugs) or hacker attacks.

The rules envisaged in favor of crypto-asset exchanges (defined in the Proposal as trading service providers) follow the rules for the corresponding type of financial intermediary. The aim is to avoid that, in the absence of regulation, these operators may prefer some customers rather than others and thus fall short of the principles of equal treatment, fundamental for the provision of this type of service (Furnari 2021).

In this regard, it is explicitly stated that lenders must make public the procedures that guarantee the equal treatment of their customers, but above all that they cannot operate on their own behalf. This latter provision would seem to cast doubt on the possibility, widely held among the most active crypto-asset exchanges on the markets, of admitting their own crypto-assets to exchanges²¹.

In addition to these general principles, it is also made clear that crypto-assets for which a white paper has not been published cannot be admitted to trading. The providers

²¹ Usually utility tokens that can be used to get discounts on trading fees. See, for example, the Crypto-asset *Binance Coin* (BNB) with which it is possible to obtain commission discounts on the Binance Exchange. Accessed December 3, 2021. https://www.binance.com/en.

of these services are even asked to carry out an independent assessment of crypto-assets to be admitted to the exchange; an evaluation that can also take into consideration the professionalism of the bidder and the members of its management bodies.

3. Conclusions

The Proposal certainly represents a novelty of great importance in the crypto-assets sector, and more generally for financial markets. Its definitive adoption, especially without changes, will certainly not go unnoticed. This is true not only for the crypto-asset market but, especially for the market currently occupied by "traditional" financial intermediaries.

Due to the way it is structured, and despite the provision of exemptions, the Proposal, with regard to the crypto-assets market, could even slow down the birth of new operators, leading rather to the consolidation of existing entities, which are already managed to raise the liquidity necessary to comply with the regulations that will be enacted. On the other hand, the Proposal could make the provision of these services more secure, thus increasing the trust of end users and therefore, indirectly, their number.

The choice of equating crypto-asset service providers with more traditional financial intermediaries must also be considered with particular attention, despite the declared non-financial nature of the crypto-assets being offered. Finally, the absence of references to decentralized entities, as well as to the entire sector, currently undergoing great development, known by the term "DeFi" (which stands for Decentralized Finance), is surprising. The choice could be justified in the fact that this new market is still in its infancy. However, it is hoped that, before defining the regulatory framework, these operators can also be taken into consideration. Otherwise, two potentially alternative scenarios would appear. The first is that in which these "decentralized" operators, not being considered by legislation, continue to operate with their essential "widespread" structure, which would not allow a safe and coherent regulation. The second is that in which, in the absence of regulation, such services are to be considered prohibited. This would not be a good result.

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Received: April 24, 2021 Accepted: December 10, 2021

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