

Testo provvisorio - non soggetto a circolazione

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ICOs and European Prospectus Rules

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1. Introduction

Initial Coin Offerings (ICOs) are a novel instrument of entrepreneurial finance. By the end of 2018, more than 2100 ICOs were launched, raising more than USD 14 billion¹. In an ICO, cryptographically secured digital assets (tokens) are sold by a blockchain team to prospective users of the future platform and investors. The project is then financed with the sale proceeds. Thus, ICOs are a brand new form of financing that can be used by startups that have a blockchain-related business idea.

Blockchain teams face a large amount of novel legal issues when they decide to finance their venture through an ICO, but two topics dominate the others. The first one is whether the crypto proceeds are taxable to the entity selling the tokens. In many jurisdictions and from a purely tax perspective it would be preferable, for promoters, if tokens were treated like financing instruments and their proceeds as equity or debt.²

The second matter is whether tokens risk to be characterized as securities (US) or financial instruments (EU). Here the promoters' wishes are reverted, because the consequences of a classification as securities can be dramatic. It would bring the ICO within the realm of securities regulation, which means, from a European perspective, prospectus regulation, investment firms' involvement in broker-dealer operations, investment intermediaries

¹ Data from Icodata.com ICO aggregator. At the same time, Coinschedule.com reports that from 2016 more than 1600 ICOs raised around USD 28.44 billions.

² (Batiz-Benet et al. 2017) 13-14.

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rules of conduct, exchanges regulation, pre and post trading information, market abuse regulation, central custodians regulation, short selling rules, etc. No surprise, therefore, that the legal debate concerning ICOs has been mainly focused on the security regulation issue.

In this paper we start to cover the security regulation issue, starting from European prospectus regulation. *[We proceed as follows. Part I analyses the blockchain and ICOs. Part II considers the US definition of security and the use of the Howey-test with regard to cryptoassets and ICOs. Part III considers the definition of financial instrument in European securities regulation. Part IV discusses whether tokens in general, and utility tokens in particular, should be qualified as negotiable instruments under EU prospectus rules].*

2. The blockchain as a trust machine

In 2017 and 2018 the new phenomenon of ICOs exploded. ICOs can be considered a special form of crowdfunding, but have a very different characteristic: liquidity. The new world of ICOs is a by-product of a new technology, the blockchain. A blockchain is a database that takes a number of records and aggregates them in a block. Blocks are then chained sequentially using a cryptographic signature, and the records form a ledger that is distributed among all the participants to the computer network. Accordingly, the ledger is shared and synchronized among the participants' computers (distributed ledger technology).

Synchronization is the problem of any common document subject to changes, as whoever works on shared documents knows well. Indeed, for teams working on a common document the main issue concerns the master copy and the amendments to the master copy. Teams must decide who has permission to make amendments. In case of conflicts among drafts caused by synching problems, somebody needs authority to establish which the true master copy is. A clear process is needed to govern these issue. The team needs a uniform view on the state of things and the order of events. This is consensus.

In the distributed ledger world, the same logic applies. The process works through probabilistic consensus mechanisms among the network participants, which grant that a

transition from one state to the other³ is agreed among the participants and can therefore be recorded once and forever. This probabilistic consensus mechanisms rely on protocols and algorithms that lie at the core of any blockchain system. In the Bitcoin world, the process through which transactions are cryptographically validated is called mining, because participants that validate transactions are rewarded with new cryptocurrencies generated by the platform. However, other platforms have chosen a different economic environment, with completely or partially “pre-mined tokens” and validation paid for by interested parties to the validators, which are still called miners but do not really “extract” new cryptoassets.

Details on the different logic and mathematical mechanisms (protocols and algorithms) used to reach consensus through mining (proof of work, proof of stake, etc) are outside the reach of a law paper. Thanks to the blockchain, however, there is no data storage centre any more, and there is no ledger’s administrator. The digital data are shared among computers and nobody controls them, making them immutable unless the majority of the participants decides to go back and change the ledger’s history with an intentional and retrospective “hard fork”, or somebody organize a hostile blockchain takeover, taking control of the majority of the computers, reopening the blocks, creating a falsus consensus and rewriting the data (Goldfinger or 51 percent attacks).⁴ This

³ In the words of Vitalik Buterin, Proof of Stake: How I Learned to Love Weak Subjectivity, posted by on November 25, 2014, on blog.ethereum.org (“The purpose of a consensus algorithm, in general, is to allow for the secure updating of a state according to some specific state transition rules, where the right to perform the state transitions is distributed among some economic set”).

⁴ This was considered a rather theoretical situation because of the huge costs involved in taking control of the majority of computers. However, at least one study mentioned the possibility of hiring computer power to take control of a blockchain: (Bonneau 2016); see

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reliability allows blockchains to be used like a ledger, which can be edited, shared and relied upon by anyone with the appropriate permissions, without the need to trust or rely upon a centralized authority since all the transitions public. The blockchain can therefore become a 'trust machine'⁵ and replace central authorities, whether public or private, that keep trusted records.

The first realization of the power of the blockchain, and some of its drawbacks, came with Bitcoin. The Bitcoin Blockchain was announced by the first and most legendary of the whitepapers, Nakamoto's one, which addresses with the style of a scientific paper the issue of double spending in electronic cash.⁶ The Bitcoin Blockchain has proved to be secure and resilient, even though the consensus mechanism on which it relies on (proof of work) is resource intensive and therefore environmentally unsustainable.⁷

3. The rise of ICOs

Very soon after Bitcoin's launch a geek realized that new protocol layers on top of Bitcoin could be used to finance new platforms in the way of crowdfunding, without the need for venture capitalists and middlemen.⁸ The Mastercoin ICO was an instant success, and was followed by other projects aimed at improving the bitcoin ecosystem, even though

also (Bonneau 2018). Small blockchains have been subject to 51 percent attacks: see M. Casey, *The Ethereum Classic Attacker Has Sent a Bigger Message*, Coindesk, Jan. 14, 2019, accessible at www.coindesk.com/the-ethereum-classic-attacker-has-sent-a-bigger-message

⁵ The Economist, "The Promise of the Blockchain: The Trust Machine", The Economist, Oct 31st 2015 2015.;

⁶ (Nakamoto 2008)

⁷ (Truby 2018)

⁸ (Shin 2017)

already in 2014 the US singer Tatiana sought to finance the production of an album by fundraising Bitcoin in exchange for Tatiana coins.⁹

Then came Ethereum. Ethereum is fundamental for two reasons. First, it was the first token fundraising well-organized in terms of documents, information, legal structure, with the establishment of a Swiss foundation for collecting and using the funds to the benefit of the platform development and not the founders.¹⁰ Second, Ethereum was a more developed protocol, offering a Turing-complete programming language through which any type of self-executing transaction (so called “smart contract”) can be designed and released on the blockchain.¹¹ Accordingly, Ethereum offered a token (Ether) which quickly became a cryptocurrency as well, and opened up an entirely new environment for decentralized applications (dapps) running on top of it.

Ethereum and the appreciation of Bitcoin’s value in 2017 unleashed the run to ICOs. In 2017 around 875 ICOs were launched and collected almost USD 6.2 billions.¹² The contours of a typical ICOs were shaped in this period. A standard ICO proceeds as follows. First, advertisement and bounty campaigns through social media are organized to invite attention and launch small-scale fundraising campaigns (pre-sales) to get the involvement of venture capitalists and other professional or accredited investors. At this stage the team usually issues the first draft of a technical whitepaper, where the promoters explain the technical idea behind the project, generally using an academic, scientific style. In pre-sales tokens are offered at a great discount; and the funds so raised are used to launch more extended advertisement campaigns and publish the general whitepaper, a sort of voluntary prospectus where the promoters sketch or explain the project, with various levels of detail, from an economic and technical perspective. At the

⁹ (Boreiko and Sahdev 2018), at 8.

¹⁰ Ethereum’s campaign raised \$18 million worth of Bitcoin.

¹¹ (Werbach and Cornell 2017; Cong and He 2018)

¹² Data from Icodata.io.

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same time the promoters consolidate stable communication channels on social media with their targeted community and list their initiative on ICOs' dedicated website such as www.icoalert.com, www.coinschedule.com, topicolist.com, etc. Then the ICOs is launched, tokens are exchanged for cryptocurrencies or fiat money, and a secondary market is promoted by listing the proprietary token. At the moment we are writing, n. 2091 different tokens are listed on coinmarketcap.com.¹³ A large part of those tokens are built on top of Ethereum, meaning that the proprietary token is a dapp of the Ethereum ecosystem (the "Ethereum Virtual Machine"), where Ether is used as a currency (but it is actually called "gas") to pay for the computing power required to get consensus and execute transactions.

It is important to point out that tokens are not necessarily created and distributed through ICOs. Some, like Bitcoin itself, are created by miners assuming that demand for and value of such coins will be determined from future use by buyers and sellers of goods and services. Many such coins were created and then faded into oblivion. Sometimes developers had different opinions of future development, thereby creating two alternative coins out of one (hard-fork).

Tokens can also be partially or totally pre-mined. Tokens can also be "burned" in order to reduce their quantity and increase the value of the remaining ones.

4. The different rights that can be offered by tokens (token categories)

Tokens can offer different rights and are usually classified in categories, whose differences are usually blurred and can create a lot of confusion.

¹³ <https://coinmarketcap.com/all/views/all/>

Altcoins, payment tokens or digital currencies.

Bitcoin was created as a cryptocurrency and therefore as a means of payment.¹⁴ The same is true with regard to Ethereum, which is however much more, as we have noted. These tokens are usually classified as “currency tokens”. Other tokens in this class were developed as relatively straightforward extensions of the original Bitcoin blockchain to overcome its deficiencies as peer-to-peer medium of exchange. Dogecoin (the name of the currency is DOGE), Monero (XMR), Ripple (XRP),¹⁵ Litecoin (LTC). It must be pointed out that the distinction with utility tokens (see *infra*) is not always clear. For instance, XRP is considered by many a currency, but can also be regarded as an utility token that provides access to its payment platform.

Reward or reputation tokens

Some projects used blockchain and issued tokens as an internal reward for participating in (Synero, GetGems) or adding content (Steem) to the developed project’s network. A largely cited example is Augur, a protocol for creating and running prediction markets built on top of Ethereum. Participants stake Augur’s token, REP, on future outcomes, and gain or lose them depending on the final outcome.¹⁶

Utility tokens.

Tokens which offer some type of functional utility are usually classified as “utility tokens”.¹⁷ The most cited example concerns Filecoin, which is considered the prototypical

¹⁴ (Nabilou and Prüm 2017)

¹⁵

¹⁶ Peterson et al., Augur: a Decentralized Oracle and Prediction Market Platform, July 12, 2018 (accessed on Jan. 10, 2019).

¹⁷

compliant-aware ICO.¹⁸ Filecoin aims at offering a decentralized storage network to its community. Users pay tokens to miners in order to store data, and miners validate and store.¹⁹

Also utility tokens seek to create a large platform of users and therefore a network effect, where the more users adopt the platform, the larger the value of the platform becomes.²⁰ Free distributions of tokens, named 'airdrops', are adopted in many occasions in order to promote the platform and increase network effects.²¹ Quite often the platform is not yet operational during the fundraising, but almost always the investors are free to trade in such tokens shortly after the ICO to cash in on the margin between the subscription and actual token prices.

Investment, equity tokens.

Some ICOs openly sold tokens that represented digital equivalents of shares in a common enterprise (Lykke). Other ICOs collected funds to invest and distribute profits to their members, de facto creating investment companies without proper registration (Swarm, Melonport, Iconomi, BCAP). Many other offered profits- or governance rights in the projects (the DAO) or promised a high return by accruing dividends regularly repurchasing tokens in the open market after the ICO. On the other side of the spectrum are tokens that offer participation rights in ventures. The most cited is The DAO, which was an investment vehicle that aimed at distributing cryptoprofits to its own participants.²² These participative tokens are usually classified as "investment tokens." Since they grants rights that are equivalent to shares, bonds or hybrids, they clearly fall

¹⁸ For an analysis see (Howell et al. 2018)

¹⁹ Protocol Labs, Filecoin, accessed ____

²⁰ (Katz and Shapiro 1985)

²¹ With regard to blockchain projects, see (OECD 2019)

²² See infra

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within the definition on “transferable security” under the European Prospectus Rulebook.²³

Asset or commodities tokens.

These tokens are designed to tokenize the rights to some asset such as commodities and allow investors’ participation in some exclusive markets such as gold (Zengold), silver (Silvercoin), precious or industrial metals (Zrcoin, Sandcoin) or even electricity (GigaWatt). Investors, in exchange for their contribution, obtain tokens that are promised to represent shares of the assets’ pool, to be redeemed with a profit in the future.

5. Analysis of top 50 tokens by market capitalization

We have selected the top 50 tokens by market capitalization. Five of those tokens were created by hard-forks of Bitcoin and Ethereum blockchains. Twenty one were launched through private seed financing, mining or airdrops.

Twenty four tokens, instead, were distributed to investors through token sales. Among the 24 in our sample, 25% (6 ICOs) can be broadly classified as digital currencies, created for this purpose (e.g. Cardano) or being used as such (Ethereum, Waves, Lisk). Two ICOs have features of reputation/reward tokens (Augur and BAT) and ten (40% of the subsample) can be classified as investment tokens (Binance, NEO, Tezos etc.), due to them either conferring governance rights, or being centralized, or promising or conducting profit distributions to token holders through token repurchases and burning or dividends accruing to the token holders in one way or another.

The remaining seven tokens (EOS, Tron, NEM etc.) can be labelled as pure utility ones. There are no asset-backed tokens in the top 50 cryptocurrencies list.

²³ See *infra*, ____

6. ICOs and US Securities Regulation

Around half of the blockchain initiatives are American, and the US are the largest investor market in the world. Moreover, US securities regulation is one of the better enforced in the globe, due to the mix of public enforcement (driven by SEC, DOJ, state attorneys) and private one, mainly in the form of class actions. It is not surprising, therefore, that the whole blockchain world has observed with great anxiety the reaction of US authorities to the spread of ICOs.

After an initial, quiet learning period,²⁴ in July 2017 the SEC published an investigative report where it warned market participants that offers and sales of digital assets might be considered as securities, depending on the facts and circumstances of each ICO.²⁵ The report was issued with regard to an investigation concerning The DAO, which was a “decentralized autonomous organization” that wanted to operate as a for-profit entity by funding blockchain projects and sharing the earnings with the holders of DAO Tokens, which would have been negotiable on crypto-exchanges. The SEC reminded the crypto community that under Section 2(a)(1) of the Securities Act and Section 3(a)(10) of the Exchange Act, a security includes “an investment contract.” An investment contract is an investment of money in a common enterprise with a reasonable expectation of profits to be derived from the entrepreneurial or managerial efforts of others. Accordingly, the Howey test can be applied to determine whether (i) there exists an investment of money, (ii) there exists a common enterprise, (iii) there exists an expectation of profits, and (iv) the expectation of profits results solely from the efforts of others.²⁶

²⁴ During which some articles had already discussed whether cryptoassets can be considered securities: (Valkenburgh 2016)

²⁵ SEC, “Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO” (July 25, 2017).

²⁶ SEC v. W.J. Howey Co., 328 U.S. 293.

The cryptoworld suddenly realized that “simply labeling a digital asset a ‘utility token’ does not turn the asset into something that is not a security”.²⁷ What really matters is how the token is promoted and sold, and what are the reasonable expectations of purchasers.²⁸ Actually a few well advised actors were aware of these old, solidly established principles. In the second half of 2017 Protocol Labs launched Filecoin. The offer concerned “Simple Agreements of Token Sales” (SAFT), basically a future sale of tokens. SAFTs were treated as securities by their promoters and were offered exclusively to US accredited investors and to non-US investors in an equivalent position.²⁹ Filecoin’s offer was a great success and it immediately became the poster child for any regulation’s compliant ICOs: it raised \$ 205 millions from more than 2,100 professional and accredited investors.³⁰

In the meantime at the end of 2017 the SEC issued a settled order against an issuer named Munchee, reinstating that a token may be a security even if it has some purported utility and regardless of the jargon or technology adopted.³¹ Then it pursued many other cyber enforcement actions, among which one concerning two initial coin offerings (ICOs) purportedly backed by investments in real estate and diamonds (Recoin Group Foundation and Diamond Reserve Club), which led to the first Court decision concerning ICOs, issued by Judge Dearie of the Eastern District of New York.³² Other actions up to

²⁷ (Hinman 2018)

²⁸ With regard to cryptoassets a rather specific issue concerning the Howey test is the individuation of “the efforts of others.” At the start of the project there is a team of developers and they are “the others” whose efforts investors rely on. But if the project becomes a platform and its fortune depends on a network of users, there is no more any specific third party to make reference to.

²⁹ Filecoin Token Sale Economics, 4.

³⁰ <https://coinlist.co/filecoin> (accessed on Jan. 11).

³¹ Munchee, Inc., Securities Act Rel. No. 10445 (Dec. 11, 2017) (settled order)

³² Memorandum & Order, 1:17-cr-00647-RJD-RER (E.D.N.Y.), ECF No. 37 (Sept. 11, 2018).

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date have concerned an unregistered broker-dealer,³³ two unregistered offers of tokens,³⁴ a crypto-fund not registered as an investment company,³⁵ and an unregistered exchange platform.³⁶

In order to cope with the new world of FinTech and ICOs the SEC has established its own Strategic Hub for Innovation and Financial Technology (FinHub).

7. Tokens and EU Securities Regulation: The definition of “financial instrument” and its role in MiFID

‘Financial instrument’ is a core concept of EU securities regulation and one which defines the scope of application of the Markets in Financial Instruments Directive (MiFID II). Annex I, section C, MiFID II³⁷ specifies the different types of financial instrument, such as transferable securities, money-market instruments, units in collective investment undertakings, options, futures, swaps, forward rate agreements and any other derivative contracts relating to securities, currencies, interest rates or yields, etc. The financial instrument concept concurs to the definition of two other core concepts of MiFID II: investment service and investment firm. Under Art. 4 (2), ‘investment service and activities’ means any of the services and activities listed in Section A of Annex I relating

³³ Tokenlot LLC, Lenny Kugel, and Eli L. Lewitt, Rel. No. 33-10543 (Sept. 11, 2018) (settled order) (“TokenLot Order”).

³⁴ CarrierEQ, Inc., Rel. No. 33-10575 (Nov. 16, 2018); Paragon Coin, Inc., Rel. No. 33-10574 (Nov. 16, 2018).

³⁵ Crypto Asset Management, LP and Timothy Enneking, Rel. No. 33-10544 (Sept. 11, 2018) (settled order)

³⁶ Zachary Coburn, Rel. No. 34-84553 (Nov. 8, 2018) (settled order) (“Coburn Order”)

³⁷ Art. 4 (1) (15) states that “financial instrument” means those instruments specified in Section C of Annex 1.

to any of the instruments listed in section C of Annex I. Under Art. 4 (1), 'investment firm' means any legal person whose regular occupation or business activity is the provision of one or more investment services to third parties and/or the performance of one or more investment activities on a professional basis.

MiFID II's scope is defined on the basis of similar concepts, which are grounded on the financial instrument idea.³⁸ Indeed, the Directive establishes requirements in relation to authorisation and operating conditions for investment firms; provision of investment services or activities by third-country firms through the establishment of a branch; authorisation and operation of regulated markets; authorisation and operation of data reporting services providers; and supervision, cooperation and enforcement by competent authorities.³⁹ The need for a new Directive is indicated by the 4th considerandum in the Preamble: 'The financial crisis has exposed weaknesses in the functioning and in the transparency of financial markets. The evolution of financial markets has exposed the need to strengthen the framework for the regulation of markets in financial instruments, including where trading in such markets takes place over-the-counter (OTC), in order to increase transparency, better protect investors, reinforce confidence, address unregulated areas, and ensure that supervisors are granted adequate powers to fulfil their tasks'.

The financial instrument concept also includes 'transferable securities', which are defined as 'those classes of securities which are negotiable on the capital market, with the exception of instruments of payment, such as: (a) shares in companies and other securities equivalent to shares in companies, partnerships or other entities, and depositary receipts

³⁸ Art. 1 (1) provides: 'This Directive shall apply to investment firms, market operators, data reporting services providers, and third-country firms providing investment services or performing investment activities through the establishment of a branch in the Union'.

³⁹ See Art. 1 (2) MiFID II. Art. 1 (3) further specifies: 'The following provisions shall also apply to credit institutions authorised under Directive 2013/36/EU, when providing one or more investment services and/or performing investment activities'.

in respect of shares; (b) bonds or other forms of securitised debt, including depositary receipts in respect of such securities; (c) any other securities giving the right to acquire or sell any such transferable securities or giving rise to a cash settlement determined by reference to transferable securities, currencies, interest rates or yields, commodities or other indices or measures'.⁴⁰ The other instruments specified in Annex I, section C, mainly belong to the derivatives' type (with the exception of units in collective undertakings).

8. The role of "financial instrument" in other Directives and Regulations

Other texts of EU securities regulation refer to MiFID's definition of financial instrument, while indicating to which type of instruments they specifically apply. To start with, Art. 3 (1) MAR adopts the definition of financial instrument given under MiFID II. However, Art. 2 (1) MAR delimits the scope of application of the Regulation with reference to the following: '(a) financial instruments admitted to trading on a regulated market or for which a request for admission to trading on a regulated market has been made; (b) financial instruments traded on an MTF, admitted to trading on an MTF or for which a request for admission to trading on an MTF has been made; (c) financial instruments traded on an OTF; (d) financial instruments not covered by point (a), (b) or (c), the price or value of which depends on or has an effect on the price or value of a financial instrument referred to in those points, including, but not limited to, credit default swaps and contracts for difference.' The admission to trading to either a regulated market or an MTF or an OTF is clearly the identifying factor of the instruments which are relevant under MAR.

Furthermore, Art. 3 (2) MAR defines 'securities' in particular as '(i) shares and other securities equivalent to shares; (ii) bonds and other forms of securitised debt; or (iii) securitised debt convertible or exchangeable into shares or into other securities

⁴⁰ Art. 4 (1) (44).

equivalent to shares. In addition, it defines 'associated instruments', including those which are not admitted to trading or traded on a trading venue.⁴¹

Similarly, Art. 2 (1) (a) of the Transparency Directive identifies securities as 'transferable securities' as defined in Article 4 (1), point 18, of MiFID I, with the exception of money-market instruments, as defined in Article 4 (1), point 19, of that Directive having a maturity of less than 12 months, for which national legislation may be applicable.⁴²

[OTHER DIRECTIVES AND REGULATIONS]

9. Transferable securities under PD/PR

According to the definition of Art. 2(1)(a) of the Prospectus Directive and the Prospectus Regulation, which refers to MiFID's definition of securities, prospectus rules apply to transferable securities. Securities are transferable when limits to transferability are not embedded into the instrument. Securities are standardized instruments. Art. 4(1)(44)

⁴¹ The following are defined as 'associated instruments': (i) contracts or rights to subscribe for, acquire or dispose of securities; (ii) financial derivatives of securities; (iii) where the securities are convertible or exchangeable debt instruments, the securities into which such convertible or exchangeable debt instruments may be converted or exchanged; (iv) instruments which are issued or guaranteed by the issuer or guarantor of the securities and whose market price is likely to materially influence the price of the securities, or vice versa; (v) where the securities are securities equivalent to shares, the shares represented by those securities and any other securities equivalent to those shares'.

⁴² MiFID I defined 'Transferable securities' as 'those classes of securities which are negotiable on the capital market, with the exception of instruments of payment, such as: (a) shares in companies and other securities equivalent to shares in companies, partnerships or other entities, and depositary receipts in respect of shares; (b) bonds or other forms of securitized debt, including depositary receipts in respect of such securities; (c) any other securities giving the right to acquire or sell any such transferable securities or giving rise to a cash settlement determined by reference to transferable securities, currencies, interest rates or yields, commodities or other indices or measures'.

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MiFID II defines securities as “those classes of securities which are negotiable on the capital market, with the exception of instruments of payment.” Thus, transferable securities should be standardized and negotiable on the capital market. Negotiability is not a legal requirement equivalent to transferability, but denotes ease of exchange as a matter of fact.

The examples provided for by Art. 4(1)(44) MiFID II and which were already contained in Art. 4(1)(18) MiFID offer a non-exhaustive list of transferable securities (“such as”), which includes (a) shares in companies and other securities equivalent to shares ... depositary receipts in respect of shares; (b) bonds or other forms of securitised debt, including depositary receipts in respect of such securities; (c) any other securities giving the right to acquire or sell any such transferable securities or giving rise to a cash settlement determined by reference to transferable securities, currencies, interest rates or yields, commodities or other indices or measures.

The list creates the typical problem of deciding whether the broad category (“the classes of securities which are negotiable on capital market”) should be read and restricted in the light of the examples (*ejusdem generis* rule) or not.

The definition of transferable security should also take into account the negative examples contained in the EU rulebook. For example, Art. 1(2)(g) PD mentions the instruments to which the Directive shall not apply. Among them there are “non-fungible shares of capital whose main purpose is to provide the holder with a right to occupy an apartment, or other form of immovable property or a part thereof and where the shares cannot be sold on without this right being given up.” This example confirms that securities must be fungible and provides indications about what negotiability means. If the shares can be sold but lose some of the rights attached, they are not negotiable.

10. *Financial Risk*

“Investment in securities, like any other form of investment, involves risk” (Prospectus Directive, Recital 19). Risk, in the sense of financial risk, is an essential feature of an

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investment in securities and differentiates that investment from the purchase of goods or services, where financial risk is not a preeminent feature. A buyer of a cloud service faces product failures and obsolescence. The buyer of the shares in the tech company which offers the service faces a long list of risks that affect her returns on the shares and put at risk her capital. We will return on the financial risk issue later on.

11. *Tokens and EU Prospectus Regulation*

As we mentioned above, the key concept for prospectus regulation is that of transferable securities, meaning, under Art. 4(1)(44) MiFID II, “those classes of securities which are negotiable on the capital market, with the exception of instruments of payment.” Transferable securities are standardised and negotiable. The examples provided for by Art. 4(1)(44) MiFID II and which were already contained in Art. 4(1)(18) MiFID offer a non-exhaustive list of transferable securities which includes shares and similar instruments; bonds and other forms of securitised debt, and any other securities giving the right to acquire or sell any transferable securities or giving rise to a cash settlement determined by reference to transferable securities, currencies, interest rates or yields, commodities or other indices or measures.

In order to assess whether utility tokens that are exchangeable on cryptomarkets are to be considered transferable securities we do not believe that the examples contained in Art. 4(1)(44) MiFID II are to be read with an *ejusdem generis* approach, restricting the category of negotiable securities to instruments that at least resemble shares, bonds, or put or sell options on assets or indices and measures. According to the *ejusdem generis* rule, where a class of things is followed by a general term, the general term is usually restricted to things of the same type as the listed ones. Put in another way, if the words that describe the items or the situation fall into a specific category, the general word must be restricted to matters of the same kind and should not be used to expand the class.⁴³

⁴³ (Radin 1930)

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The *ejusdem generis* principle is invoked in contractual construction contexts as well as in statutory interpretation ones. However, it is disputed whether it can be applied when the general words precedes the specific ones, which follow as examples. Under Italian law of contract construction, for instance, examples do not preclude the extension to further cases that the parties might have intended to cover. The same approach is followed in the UK with regard both to contracts and statutes. In *Ambatielos v Anton Jurgens Margarine Works*,⁴⁴ the House of Lords rejected the idea that the *ejusdem generis* principle could apply in cases where the specific words follow the general words and do not precede them, and this position was held with regard to statutory construction as well.⁴⁵

Art. 4(1)(44) mentions the general term first and then uses “such as” to offer a list of examples of transferable securities which does not limit the finding of different transferable securities. Thus, simple literalism and reductionist interpretative theories such as the *ejusdem generis* approach do not work here.

12. Construction of security in the light of the whole European rulebook on capital markets

In order to find what is a transferable security, one may be tempted to embrace a purposive technique. The problem with a purposive approach is that in the field of EU financial markets regulation, the legislative purpose must apply to many different fields. The definition of the broad concept of “transferable securities” must be construed in the light of all the EU statutory materials that refer to securities and regulate securities markets and issuers. [MiFID, Transparency Directive, MAD/MAR, Custodians, financial collateral, UCIs, short selling] Accordingly, one definition that fits, say, prospectus regulation but does not fit the market abuse rulebook cannot be accepted. The EU rulebook turns around one definition and should work with that definition only. In order

⁴⁴ [1923] AC 175.

⁴⁵ See *Choudary & Anor v R*. [2016] EWCA Crim 61 (22 March 2016).

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to establish whether an instrument (for example, an ICO token) is a security for the purpose of prospectus regulation it is not sufficient to draw inferences from the scope and purpose of prospectus regulation, but it is also necessary to test the final result in the light of all the statutory materials that refer to the concept of security.

Therefore, a functional approach tailored exclusively on the purpose of EU prospectus regulation is not sufficient.

13. *Tokens sold for being exchanged on capital markets and which involve a financial risk are always securities*

We believe that the key concepts are those of “negotiability on capital markets” and “financial risk”. If tokens, whatever their nature, are easily negotiable and tradable on capital markets, and if their purchase involves a financial risk, they are tradable securities in accordance with EU financial markets regulation.

According to our analysis, whatever the rights embedded in the token, if the token is easily exchangeable and incorporate a financial risk, it is a tradable security. This conclusion is important especially with regard to utility tokens. Almost all utility tokens that have been sold through ICOs have been made exchangeable on cryptoexchanges and have been intensively exchanged on secondary markets. If we look at the tokens’ turnover, we can collect some empirical evidence on whether there are utility tokens which are exchangeable on an platform and are purchased for their utility value rather than as an investment.

Our data concerning the top 50 tokens for market capitalization indicates that the tokens are traded quite heavily, with the median number of tokens traded only in the first six months equal to 7.65 times the existing token amount (average of 6.98 excluding Tron token that has only one month of the trading history by February 2019). Such volumes can hardly be justified by investors’ sole intention to use them as utility tokens. These volumes offer a clear indication that all tokens exchanged on a crypto-exchange are seen

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by their purchasers as investment instruments rather than instruments giving access to the services offered on a future platform.

14. *Financial Risk vs Product Risk*

As we already mentioned, financial risk is another feature of a tradeable security. Risk can be divided into three categories. The first one is fraud risk, which of course is very important in ICOs.⁴⁶ The other two categories are financial risks and non-financial risks⁴⁷.

Financial risks

Financial risks originate from the financial markets due to adverse movements of economic conditions or factors affecting prices of investments. *Market risks* may arise from overall market sentiment to fintech and blockchain, or negative performance of bitcoin or ether, to which many other tokens are quite sensitive. Another type of financial risks is *liquidity risks*, which is the risk of a significant downward valuation adjustment when selling a financial asset such as a token. Quite often token investors have to offer large discounts to find buyers for unpopular or thinly traded tokens. Then there is counterparty risk, which is particularly significant in utility tokens. Since most of the tokens are traded on online crypto-exchanges and not directly between buyers and sellers of tokens, the risks that these exchanges that act as intermediaries collapse or go bankrupt is quite substantial as recent evidence shows⁴⁸. Such risks are called *counterparty* or *credit risks*, and these pose a great problem for crypto investors.

Non financial risks

⁴⁶ "SEC Stops Fraudulent ICO That Falsely Claimed SEC Approval", SEC Press release from 11/10/18.

⁴⁷ CFA Level 1 Curriculum, Volume VI, Reading 42.

⁴⁸ <https://www.coinstaker.com/five-major-cryptocurrency-exchange-collapses/>. Accessed on 10/02/19.

Non financial risks have a very different nature. First, they are idiosyncratic, concerning the product itself. If the smart contract that governs the relationship between the users and the platform does not work well, the product or the service fails to deliver its utility. In addition, there are the risks affecting the entity that sells the service. These are compliance risks and operational risks, which are quite substantial for ICO investors since the majority of them are simple start-up that have no assets, legal form or sound business plan. Moreover, there is *solvency risk*, which is the risk that the entity does not survive or succeed because it runs out of cash, even though it might otherwise be solvent. Since virtually all ICO projects are financed by bitcoin, ether or other cryptocurrency, should the value of the cryptocurrency collapse the relevant projects will be left without resources to operate. In addition, most ICO projects are based on blockchain and IT concepts that are hard to grasp for common investors, who often have only basic information about tokens derived from published whitepapers. The novelty and already-mentioned complexity pose high *security risks* due to high probability of hackers stealing company resources or doing mischief⁴⁹. The last group are *taxation risks* which directly address investors and their trading of tokens that might give raise to tax on income obligations depending on the jurisdiction.

15. *Financial vs Non Financial Risk in ICOs' sale documents*

We argue that all tokens exchanged on a secondary market present a financial risk, because the value of the investment depends on market risk, liquidity risk and credit risk. Whitepapers should therefore warn buyers that they are facing both financial and non financial risks when purchasing a token. It is therefore instructive to see how companies themselves warn their purchasers about those risks. As most ICOs publish the Purchase Agreements that investors should read before buying tokens, we can use these

⁴⁹ °Hackers Have Stolen \$400 Million From ICOs°, Lucinda Shen. <http://fortune.com/2018/01/22/ico-2018-coin-bitcoin-hack/>. Accessed on 10/02/19.

documents to identify the level of risk disclosure. Unfortunately, given the recent legislators' attention many ICOs started to delete all ICO-related information from social media and their websites. Some ICOs made such documents non-public and available only to registered investors. Moreover, the early ICOs sold their tokens without any semi-legal document. As a result, out of 24 utility tokens sold through an ICO in our sample, for 9 ICOs we could not locate those documents, leaving us with 15 documents for analysis⁵⁰.

We have tried to identify all risks mentioned in these agreements and classify them into financial, compliance, operational, security and taxation risk groups. The results are reported in Table XX.

Type of Risk	Times mentioned in Sale Document	In %
Financial		
- Market risk	2	13
- Liquidity risk	2	13
- Credit risk	2	13
Non-financial		
- Compliance risk	9	60
- Operational risk	10	67
- Solvency risk	5	33
- Security risk	8	53
- Taxation risk	11	73

⁵⁰ 3 ICOs were run without Purchase Agreement so in that case we assume that no risk disclosure were done by the token seller.

Table XX. Frequency of various types of risk disclosure in ICO token Purchase Agreements. Data from 15 ICOs with for which these documents were located.

As can be seen from the table, ICO teams warn investors about taxation, operational and compliance risk quite often, while other non-financial risks are mentioned in few cases. Only a few explicitly warn about financial risks involved in buying tokens. Those which do so acknowledge, *de facto*, that the sale concerns financial instruments. Those which do not do so, in our opinion, do not offer purchasers a true representation of the risks involved in the transaction.

16. *Consequences: Are All ICOs in violation of EU Prospectus rules?*

_____ to be continued ____

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